Programma najaarsvergadering 8 en 9 oktober 2015
NH Conference Centre Koningshof Veldhoven

NEDERLANDSE VERENIGING VOOR GASTROENTEROLOGIE

Sectie Gastrointestinale Endoscopie
Sectie Neurogastroenterologie en Motiliteit
Sectie Experimentele Gastroenterologie
Sectie Gastrointestinale Oncologie
Sectie Inflammatoire Darmziekten IBD
Sectie Kinder-MDL
V&VN MDL

NEDERLANDSE VERENIGING VOOR HEPATOLOGIE

NEDERLANDSE VERENIGING VOOR GASTROINTESTINALE CHIRURGIE

NVGIC Nederlandse Vereniging voor GastroIntestinale Chirurgie

NEDERLANDSE VERENIGING VAN MAAG-DARM-LEVERARTSEN

MDL

INHOUDSOPGAVE **pag**

Tijdstippen diverse vergaderingen tijdens najaarsvergadering:

Nederlandse Vereniging voor Gastroenterologie	8 oktober, 11.30 uur – Brabantzaal
NVMDL i.o	8 oktober, 12.00 uur – zaal 57 + 58
Nederlandse Vereniging voor Hepatologie	8 oktober, 15.00 uur – Baroniezaal

INHOUDSOPGAVE **pag**

Vrijdag 9 oktober 2015

Tijdstippen diverse vergaderingen tijdens najaarsvergadering:

Nederlandse Vereniging van Maag-Darm-Leverartsen	9 oktober, 08.00 uur – zaal 81-83
Vergadering Sectie Inflammatoire Darmziekten (IBD)	9 oktober, 11.30 uur – Brabantzaal

Belangrijke mededeling
over de aanwezigheid van farmaceutische industrieën

Aan alle deelnemers tijdens het najaarscongres op 8 en 9 oktober 2015

De Nederlandse Vereniging voor Gastroenterologie kent een jarenlange samenwerking met de farmaceutische industrie. De vereniging stelt de farmaceutische industrie in de gelegenheid aanwezig te zijn bij de wetenschappelijke vergaderingen met een stand. Mede hierdoor kan de vereniging haar wetenschappelijke bijeenkomsten organiseren.

De Geneesmiddelenwet zegt dat - onder strikte voorwaarden - de farmaceutische industrie alleen reclame mag maken voor receptgeneesmiddelen voor personen die bevoegd zijn om dergelijke geneesmiddelen voor te schrijven. Alle andere personen (inclusief bijvoorbeeld verpleegkundigen, endoscopie-assistenten en biochemici) worden beschouwd als “publiek”. De farmaceutische industrie mag geen reclame maken voor receptgeneesmiddelen voor publiek.
De Nederlandse Vereniging voor Gastroenterologie is een wetenschappelijke vereniging voor personen die beroepsmatig betrokken zijn bij zorg, onderwijs en onderzoek ten behoeve van patiënten met maag-, darm- en leveraandoeningen. Dat betekent dat ook personen die geen arts zijn, lid van de NVGE zijn.
De aanwezigheid van artsen, niet-artsen en farmaceutische industrieën tijdens het najaarscongres kan de NVGE ongewild in aanraking brengen met de inspectie voor de gezondheidszorg, sectie reclametoezicht, en daarmee in diskrediet worden gebracht. Dat willen wij uiteraard voorkomen.

In verband met de Gedragscode Geneesmiddelenreclame van de CGR en de aan het NVGE-congres verbonden expositie van farmaceutische producten, medische instrumenten en voedingsmiddelen, zal bij uw congresregistratie via de NVGE-website worden gevraagd naar uw bevoegdheid om medicijnen voor te schrijven.

Alle congresdeelnemers dragen verplicht een congresbadge waarop behalve de naam ook beroep/ functie staat aangegeven. Farmaceutische standhouders benaderen uitsluitend congresdeelnemers die de bevoegdheid hebben om receptgeneesmiddelen voor te schrijven of ter hand te stellen. Om dit extra te verduidelijken zal wederom worden gekozen voor verschillende kleuren congresbadges.

Uit het bovenstaande volgt dat aanwezige reclame-uitingen en merkproductinformatie van farmaceutische industrieën alleen gericht zijn op personen die bevoegd zijn om de betreffende geneesmiddelen voor te schrijven. Wij maken u erop attent dat het voor niet-artsen dan ook niet is toegestaan de stands van de aanwezige farmaceutische industrieën te bezoeken.

De NVGE en farmaceutische industrie (sponsoren) vertrouwen erop u met bovenstaande voldoende te hebben geïnformeerd.

Het bestuur van de NVGE

Voorwoord

Hierbij treft u het volledige programma aan van het najaarscongres dat gehouden wordt op 8 en 9 oktober a.s. in NH Conference Center Koningshof te Veldhoven. Zoals gebruikelijk wordt ons congres vooraf gegaan door het cursorisch onderwijs op woensdag 7 oktober, waarvan u het programma aantreft op bladzijde 6 en 7.

Traditioneel zijn er in het najaar veel klinische symposia, die dit najaar weer een doorlopend programma vormen parallel aan de abstractsessies. De klinische symposia zijn veelal multidisciplinair en georganiseerd door secties of specifieke werkgroepen.

Op donderdag is er een doorlopend NVGIC-programma en een doorlopend NVH-programma met een symposium en klinische abstracts. Vanaf 13.00 uur is er een primeur met een programma door en voor oudgedienden. Wij willen Joep Bartelsman hartelijk danken voor zijn inspanningen hiervoor!
Parallel daaraan het Gastrostart Lustrumsymposium, voorafgegaan door presentaties van onderzoekers met een MLDS Career Development Grant. Het motiliteitssymposium op donderdagmiddag is tevens als afscheidssymposium voor Andre Smout georganiseerd.

De donderdag wordt afgesloten met twee Presidential Lectures rond het thema: Wetenschap, Innovatie en Ondernemerschap. Wij kijken uit naar de comeback die Sander van Deventer hiervoor in Veldhoven zal maken en naar de presentatie van Mark Gilreath, oprichter en CEO van EndoChoice, die hiervoor vanuit Atlanta naar Veldhoven zal komen.

Op vrijdag aansluitend aan de ALV van de NVMDL een symposium over kwaliteitsindicatoren van de sectie IBD, en de inmiddels traditionele videosessie van de Sectie Gastrointestinale Endoscopie. Om 10.30 uur een state of the art voordracht over ACNES door collega Roumen, chirurg in het MMC in Veldhoven. Om 11.00 uur start het NVMDL symposium over het BVO, georganiseerd in samenwerking met het RIVM. Het programma wordt afgesloten met een plenair symposium van de Sectie Gastrointestinale Endoscopie.

Ook tijdens het najaarscongres zijn er weer meet the expert sessies. Er is slechts beperkt plaats. In een kleine groep kunt u dan interactief casuïstiek bespreken die door de experts is voorbereid. De collegae Den Hartog en Zimmerman verzorgen een sessie over proctologie; de collegae Poley en Perk verzorgen een sessie over ERCP.

Dr. J.J. Keller, secretaris NVGE

Woensdag 7 oktober 2015

Cursorisch onderwijs in maag-darm-leverziekten — Auditorium

Cursuscommissie

Prof. dr. U.H.W. Beuers, voorzitter, MDL-arts, AMC, Amsterdam
Mevr. dr. C.M. Bakker, MDL-arts, Atrium MC, Heerlen
Drs. K. van Hee, aios MDL, Radboudumc, Nijmegen
Dr. M.A.J.M. Jacobs, MDL-arts, VUmc, Amsterdam
Dr. P.J.F. de Jonge, aios MDL, EMC, Rotterdam
Mevr. dr. A.M.J. Langers, MDL-arts, LUMC, Leiden
Dr. B. Oldenburg, MDL-arts, UMCU, Utrecht
Mevr. dr. R.E. Pouw, aios MDL, AMC, Amsterdam
Dr. B.J. Veldt, MDL-arts, Reinier de Graaf Gasthuis, Delft
Dr. P.J. Wahab, MDL-arts, Rijnstate Ziekenhuis, Arnhem

Neurogastroenterologie en Motiliteit I

Voorzitters: *Prof. dr. U.H.W. Beuers, Dr. P.J.F. de Jonge*

14.30 – 14.35 Inleiding

14.35 – 14.55 Oesofagusmotiliteitsstoornissen
Dr. A.J. Bredenoord (MDL-arts, AMC Amsterdam)

15.00 – 15.20 Reflux oesofagitis
Dr. J.M. Conchillo (MDL-arts, MUMC Maastricht)

15.25 – 15.45 Eosinofiele oesofagitis
Prof. dr. P.D. Siersema (MDL-arts, UMC Utrecht)

15.50 – 16.10 Maagontledigingsstoornissen
Prof. dr. A.A.M. Masclee (MDL-arts, MUMC Maastricht)

16.15 – 16.35 Pauze

Woensdag 7 oktober 2015

Cursorisch onderwijs in maag-darm-leverziekten **Auditorium**

Neurogastroenterologie en Motiliteit II

Voorzitters: *Dr. P.J. Wahab, Dr. R.E. Pouw*

16.35 – 16.55 Chronische intestinale pseudo-obstructie
Prof. dr. A.J.P.M. Smout (MDL-arts, AMC Amsterdam)

17.00 – 17.20 Prikkelbare darm syndroom (IBS)
Dr. M.H. Otten (MDL-arts, Apeldoorn/Utrecht/NL)

17.25 – 17.45 Chronische obstipatie
Prof. dr. A.J.P.M. Smout (MDL-arts, AMC Amsterdam)

17.50 – 18.10 Ileus
Dr. M. Stommel (chirurg, Radboudumc Nijmegen)

18.15 – 18.35 Pauze

Neurogastroenterologie en Motiliteit III

Voorzitters: *Dr. B.J. Veldt, Drs. K. van Hee*

18.35 – 19.05 Bekkenbodemproblematiek – zicht vanuit de MDL-arts en fysiotherapeut
Mw. dr. R.J.F. Felt-Bersma (MDL-arts, VUmc Amsterdam)
Mw. J. Groot (fysiotherapeut, VUmc Amsterdam)

19.10 – 19.30 Hemorroïden, prolaps en fissuren
Dr. P. Dewint (MDL-arts, Maasstadziekenhuis Rotterdam)

19.35 – 19.55 Behandeling van incontinentie
Mw. prof. dr. S.O. Breukink (chirurg, MUMC Maastricht)

20.00 Einde cursus, diner

De cursuscommissie verwacht van de MDL-artsen i.o. dat ze de Cursus Klinische Hepatologie (NVH) tijdens de Dutch Liver Week éénmaal bezoeken in het tweede deel van de MDL-opleiding (jaar vier tot zes). Op het cursorisch onderwijs zijn conform de eisen van het Centraal Register Kort Beroepsonderwijs leveringsvoorwaarden en een klachtenregeling van toepassing. Informatie vindt u op de onderwijspagina van www.mdl.nl en www.nvge.nl.

Programma donderdag 8 oktober 2015

Donderdag	Brabantzaal	Baroniezaal	Auditorium	Parkzaal
08.45 - 09.30	Ontvangst en koffie	Ontvangst en koffie	Ontvangst en koffie	Ontvangst en koffie
09.00 - 11.30	Vrije voordrachten Sectie Gastrointestinale Endoscopie (aanvang sessie 10.00) *pagina 10*	Symposium NVH: 'Wat is nieuw bij cholestatische leverziekten en levertransplantatie' (aanvang 09.30) *pagina 18*	NVGIC: 'Nieuwe technieken voor benigne aandoeningen van de bovenste tractus digestivus' en 'Hiatus hernia en refluxziekte' *pagina 16*	Vrije voordrachten Nederlandse Vereniging voor Gastrointestinale Chirurgie (aanvang 10.00) *pagina 24*
11.30 - 12.00	Ledenvergadering NVGE	ALV Brabantzaal	ALV Brabantzaal	ALV Brabantzaal
12.00 - 13.00	Lunch in expositiehal	Lunch in expositiehal	Lunch in expositiehal	Lunch in expositiehal
13.00 - 15.00	MLDS Career Development Lectures; Lustrumsymposium Gastrostart: 'De beste studies' *pagina 12*	Vrije voordrachten Nederlandse Vereniging voor Hepatologie *pagina 19*	NVGIC: Symposium 'Benigne HPB' *pagina 17*	Vrije voordrachten Nederlandse Vereniging voor Gastrointestinale Chirurgie *pagina 25*
15.00 - 15.30	Theepauze	Theepauze + ALV NVH	Theepauze	Theepauze
15.30 - 17.00	Symposium Sectie Neurogastroenterologie en Motiliteit: 'Microbes, food and functional bowel disorders' - *pagina 13*	Vrije voordrachten Nederlandse Vereniging voor Hepatologie *Pagina 22*	NVGIC: Symposium 'Benigne HPB' *pagina 17*	Vrije voordrachten Sectie Gastrointestinale Oncologie *pagina 27*
Donderdag	**Plenair Brabantzaal**			
17.00 - 17.30	Voordrachten President Select en uitreiking MLDS Award 2015 - *pagina 14*			
17.30 - 18.30	Presidential Lectures: Wetenschap, Innovatie en Ondernemerschap – *pagina 15*			
18.30 – 20.00	Borrel in expositiehal			
20.00 - 22.00	Diner Genderzaal			
22.00 - 01.00	Borrel / Muziek in foyer			

Donderdag	Seniorenprogramma
12.00 – 13.00 13.00 – 15.00	Lunch in de Uithof Lounge (gele zone) Programma zaal 81 - *pagina 29*

Programma vrijdag 9 oktober 2015

Vrijdag	Brabantzaal	Baroniezaal	Auditorium	Parkzaal
08.30 – 09.30	Ontvangst en koffie	Ontvangst en koffie	Ontvangst en koffie	Ontvangst en koffie
09.30 – 11.00	Programma Verpleegkundigen & Verzorgenden Nederland *pagina 39*	Sectie Inflammatoire Darmziekten: 'Wat is kwaliteit binnen de IBD' *pagina 32*	Video Sessie Sectie Gastrointestinale Endoscopie *pagina 30*	Vrije voordrachten Ned. Vereniging voor Gastroenterologie *pagina 34*
11.00 - 11.30	Koffiepauze	Koffiepauze	Koffiepauze	Koffiepauze
11.30 - 13.00	Programma Verpleegkundigen & Verzorgenden Nederland *pagina 39*	Vrije voordrachten Sectie Inflammatoire Darmziekten *pagina 32*	Symposium Bevolkingsonderzoek Darmkanker *pagina 30*	Vrije voordrachten Ned. Vereniging voor Gastroenterologie *pagina 36*
13.00 – 14.00	Lunch expositiehal	Lunch expositiehal	Lunch expositiehal	Lunch expositiehal
14.00 – 15.30	Middagprogramma Endoscopieverpleegkundigen in de Brabantzaal; IBD en Leververpleegkundigen in zaal 55 *pagina 40*		Vrijdagmiddag-problemen: 'Trouble shooting in endoscopy' *pagina 31*	
15.30 – 16.00	Koffie/ thee Limburgfoyer	Koffie Limburgfoyer	Koffie Limburgfoyer	

Vrijdag	Zaal 82 – Meet the expert - ERCP	Zaal 83 – Meet the expert - Proctologie
11.30 – 12.15 12.15 – 13.00	Groep 1 – volgeboekt Groep 2 – volgeboekt *pagina 38*	Groep 1 – volgeboekt Groep 2 – volgeboekt *pagina 38*

Vrije voordrachten Sectie Gastrointestinale Endoscopie — Brabantzaal

Voorzitters: W.L. Curvers en M.A.M.J. Jacobs

Voordrachten in het Nederlands, spreektijd 7 minuten, discussietijd 3 minuten

10.00 First results of endoscopic submucosal dissection for non-pedunculated colorectal polyps in The Netherlands (p. 44)

Y. Backes, F.P. Vleggaar, L.M.G. Moons, Dept. of Gastroenterology & Hepatology, University Medical Center Utrecht, Utrecht, The Netherlands

10.10 Safety and feasibility of endoscopic resection of giant non-pedunculated colorectal polyps (p. 45)

Y. Backes[1], F.P. Vleggaar1, M.M. Lacle[2], P.D. Siersema1, L.M.G. Moons[1], [1]Dept. of Gastroenterology & Hepatology, University Medical Center Utrecht, Utrecht, [2]Dept. of Pathology, University Medical Center Utrecht, Utrecht, The Netherlands

10.20 ESD-TEM: a new technique for large rectal adenomas combining endoscopic submucosal dissection and TEM with the hydrojet (p. 46)

J.W.A. Leijtens, J. Heemskerk, Dept. of Surgery, Laurentius Ziekenhuis, Roermond, The Netherlands

10.30 MRI versus endoscopy to determine the distance between rectal cancer and the anal verge (p. 47)

L. Jacobs[1], D. Meek[2], J. van Heukelom[1], T. Bollen[2], P.D. Siersema[3], B.L.A.M. Weusten[1], M. Los[4], N. van Lelyveld[1], [1]Dept. of Gastroenterology and Hepatology, St Antonius Hospital, Nieuwegein, [2]Dept. of Radiology, St. Antonius Hospital, Nieuwegein, [3]Dept. of Gastroenterology and Hepatology, University Medical Center Utrecht, Utrecht, [4]Dept. of Internal Medicine/Oncology, St Antonius Hospital, Nieuwegein, The Netherlands

10.40 Risk factors for incomplete endoscopic resection of T1colorectal cancer (p. 48)

Y. Backes[1], B.W.M. Spanier[2], D.J. Bac[3], T.C.J. Seerden[4], M.P. Schwartz[5], W.H. de Vos tot Nederveen Cappel[6], J.M.J. Geesing[7], K. Kessels[8], M. Kerkhof[9], J.N. Groen[10], G.J.A. Offerhaus[11], P.D. Siersema[1], M.M. Lacle[11], L.M.G. Moons[1](Dutch T1CRC Working Group), [1]Dept. of Gastroenterology and Hepatology, University Medical Center Utrecht, Utrecht, [2]Dept. of Gastroenterology and Hepatology, Rijnstate, Arnhem, [3]Dept. of Gastroenterology and Hepatology, Gelderse Vallei, Ede, [4]Dept. of Gastroenterology and Hepatology, Amphia Hospital, Breda, [5]Dept. of Gastroenterology and Hepatology, Meander Medical Center, Amersfoort, [6]Dept. of Gastroenterology and Hepatology, Isala, Zwolle, [7]Dept. of Gastroenterology and Hepatology, Diakonessenhuis, Utrecht, [8]Dept. of Gastroenterology and Hepatology, Flevo Hospital, Almere, [9]Dept. of Gastroenterology and Hepatology, Groene Hart Hospital, Gouda, [10]Dept. of Gastroenterology and Hepatology, Sint Jansdal, Harderwijk, [11]Dept. of Pathology, University Medical Center Utrecht, Utrecht, The Netherlands

10.50 Antibiotic gazes are equally effective as intravenous antibiotics in preventing infections after Percutaneous Endoscopic Gastrostomy (PEG) placement. Results of Percutaneous Endoscopic Gastrostomy insertion; a single-center retrospective study (p. 49)

D. Strijbos[1], A. Stronkhorst[1], E. Schoon[1], P. Friederich[1], H.J. Flink[1], W. Curvers[1], L.P.L Gilissen[1], [1]Dept. of Gastroenterology and Hepatology, Catharina Hospital, Eindhoven, The Netherlands

11.00 Digital microscopy is a valid alternative to conventional microscopy for diagnosing Barrett's esophagus (p. 50)

M.J. van der Wel[1,2], L.C. Duits[2], C.A. Seldenrijk[3], G.J. Offerhaus[4], M. Visser[5], F.J. ten Kate[4], J.G. Tijssen[6], J.J. Bergman[2], S.L.Meijer[1], [1]Dept. of Pathology, Academic Medical Center, Amsterdam, [2]Dept. of Gastroenterology and Hepatology, Academic Medical Center, Amsterdam, [3]Dept. of Pathology, St. Antonius Hospital, Nieuwegein, [4] Dept. of Pathology, University Medical Center, Utrecht, [5] Dept. of Pathology, Zaans Medical Center, [6]Dept. of Cardiology, Academic Medical Center, Amsterdam, The Netherlands

11.10 **MLDS voordracht**: Radiofrequency ablation reduces neoplastic progression in patients with Barrett's esophagus and low-grade dysplasia: A randomized, controlled trial (SURF) (p. 51)

K.N. Phoa[1], F.G.I. van Vilsteren[1], B.L. Weusten[2], R. Bisschops[3], E.J. Schoon[4], K. Ragunath[5], G. Fullarton[6], M. Di Pietro[7], N. Ravi[8], M. Visser[9], G.J. Offerhaus[9], C. Seldenrijk[10], S.L. Meijer[9], F.J.W. ten Kate[9], J.G.P. Tijssen[11], J.J.G.H.M. Bergman[1], [1]Dept. of Gastroenterology, Academic Medical Center – University of Amsterdam, Amsterdam, The Netherlands, [2]Dept. of Gastroenterology, St Antonius Hospital, Nieuwegein, The Netherlands, [3]Dept. of Gastroenterology, University Hospital Leuven, Leuven, Belgium, [4]Dept. of Gastroenterology, Catharina Hospital, Eindhoven, The Netherlands, [5]Dept. of Gastroenterology, Queens Medical Center, Nottingham, United Kingdom, [6]Dept. of Surgical Gastroenterology, Glasgow Royal Infirmary, Glasgow, United Kingdom, [7]Medical Research Council, Cancer Unit, Addenbrookes Hospital, Cambridge, United Kingdom, [8]Dept. of Clinical Medicine and Gastroenterology, St James's Hospital, Dublin, Ireland, [9]Dept. of Pathology, Academic Medical Center – University of Amsterdam, Amsterdam, The Netherlands, [10]Dept. of Pathology, St Antonius Hospital, Nieuwegein, The Netherlands, [11]Dept. of Cardiology, Academic Medical Center – University of Amsterdam, Amsterdam, The Netherlands

11.20 Safety and efficacy of circumferential radiofrequency ablation of Barrett's esophagus using the self sizing RFA balloon catheter: results of a pilot study (p. 52)

K. Belghazi[1], R.E. Pouw[1], C.M.T. Sondermeijer[1], S.L. Meijer[2], E.J. Schoon[3], A.D. Koch[4], B.L.A.M. Weusten[5], J.J.G.H.M. Bergman[1], [1]Dept. of Gastroenterology, Academic Medical Center, Amsterdam, [2]Dept. of Pathology, Academic Medical Center, Amsterdam, [3]Dept. of Gastroenterology, Catharina Hospital, Eindhoven, [4]Dept. of Gastroenterology, Erasmus Medical Center, Rotterdam, [5]Dept. of Gastroenterology, St Antonius Hospital, Nieuwegein, The Netherlands

11.30 Korte ledenvergadering Nederlandse Vereniging voor Gastroenterologie

12.00 Lunch in expositiehal

Donderdag 8 oktober 2015

MLDS Career Development Lecures — Brabantzaal

13.00 De winnaars van de Career Development Grants 2013 van de MLDS houden op uitnodiging een voordracht tijdens deze sessie.

Identification of remedies against emerging gastrointestinal and hepatic viruses by high- throughput screening of off-patent drug library
Dr. Q. Pan, Erasmus MC, Rotterdam

The role of digestive enzymes and protease-activated receptor-2 in the pathophysiology of human intestinal ischemia-reperfusion and pancreatitis
Dr. J.P.M. Derikx, chirurg, Academisch Medisch Centrum, Amsterdam

Lustrumsymposium Gastrostart: de beste studies — Brabantzaal

Voorzitters
en juryleden: J.C.H. Hardwick, B. Oldenburg en S.W.M. Olde Damink

Voordrachten in het Nederlands, spreektijd 8 minuten, discussietijd 4 minuten

13.30 Opening door de voorzitter

13.40 Het effect van chirurgie en hypertherme intraperitoneale chemotherapie (HIPEC) op de overleving van ratten met peritoneale carcinomatose van colorectale origine
Dr. I.H.T.J. Hingh, Chirurg, Catharina Ziekenhuis, Eindhoven

13.52 B cel receptor repertoire analyse in patiënten met immuungemediëerde leverziekten
Drs. L.J. Maillette de Buy Wenniger, arts-onderzoeker, Academisch Medisch Centrum, Amsterdam

14.04 Het effect van roken en koolmonoxide (CO) op het beloop en de behandeling van inflammatoire darmziekten
Prof. dr. G. Dijkstra, MDL-arts, Universitair Medisch Centrum Groningen

14.16 Identification of functional direct and/or indirect defects in Toll-like receptor activation in Crohn's Disease
Dr. G. Bouma, MDL-arts, VU medisch centrum, Amsterdam

Lustrumsymposium Gastrostart: de beste studies (vervolg) Brabantzaal

14.28 Onderzoek naar genetische oorzaken van inflammatoir darmlijden in een groot landelijk IBD cohort
Prof. dr. R.K. Weersma, MDL-arts, Universitair Medisch Centrum Groningen

14.40 Uitreiking Gastrostart Lustrum Prijs

14.45 Theepauze expositiehal

Symposium Sectie Neurogastroenterlogie en Motiliteit Brabantzaal

Voorzitters: D. Keszthelyi en A.J.P.M. Smout

Voordrachten in het Engels, spreektijd 17 minuten, discussietijd 5 minuten

Microbes, food and functional bowel disorders

15.30 Gut microbes: what does the clinician need to know?
Dr. G. Bakker, arts-onderzoeker, Academisch Medisch Centrum, Amsterdam

15.52 Why is a gluten-free diet so popular?
Prof. dr. E.H.M. Mathus-Vliegen, MDL-arts, Amsterdam

16.14 FODMAPs, just a new acronym?
Prof. dr. A.A.M. Masclee, MDL-arts, Maastricht Universitair Medisch Centrum

16.36 IBS: probiotics, antibiotics or faecal transplantation?
Prof. dr. R. Spiller, Professor of Gastroenterology, University Hospital, Nottingham, UK

17.00 Einde symposium

Voordrachten President Select — Brabantzaal

Voorzitters: J.J. Keller en P.D. Siersema

Voordrachten in het Nederlands, spreektijd 7 minuten, discussietijd 3 minuten

17.00 Impact of radiotherapy on anorectal function in a rectal watch-and-wait programme (p. 53)

M.E. van der Sande[1], B.J.P. Hupkens[2,1], M. Berbée[3], M.H. Martens[2,1], M. Maas[2], J. Melenhorst[1], R.G. Beets-Tan[4,2], G.L. Beets[5,1], S.O. Breukink[1], [1]Dept. of Surgery, Maastricht University Medical Center, Maastricht, [2]Dept. of Radiology, Maastricht University Medical Center, Maastricht, [3]Dept. of Radiotherapy, Maastro Clinic, Maastricht, [4]Dept. of Radiology, Netherlands Cancer Institute, Amsterdam, [5]Dept. of Surgery, Netherlands Cancer Institute, Amsterdam, The Netherlands

17.10 Nasoenteral feeding tube placement in surgical patients by gastroenterologists or nurses: a multicenter randomized controlled non-inferiority trial (p. 54)

A. Gerritsen[1,2], T. de Rooij[1], M.G. Dijkgraaf[3], O.R. Busch[1], J.J. Bergman[4], D.T. Ubbink[1], P. van Duijvendijk[5], G.W. Erkelens[6], P.M. Kruyt[7], D.J. Bac[8], C. Rosman[9], A.C. Tan[10], I.Q. Molenaar[2], J.F. Monkelbaan[11], E.M. Mathus-Vliegen[4], M.G. Besselink[1], [1]Dept. of Surgery, Academic Medical Center, Amsterdam, [2]Dept. of Surgery, University Medical Center Utrecht, Utrecht, [3]Clinical Research Unit, Academic Medical Center, Amsterdam, [4]Dept. of Gastroenterology and Hepatology, Academic Medical Center, Amsterdam, [5]Dept. of Surgery, Gelre Hospital, Apeldoorn, [6]Dept. of Gastroenterology, Gelre Hospital, Apeldoorn, [7]Dept. of Surgery, Hospital Gelderse Vallei, Ede, [8]Dept. of Gastroenterology, Hospital Gelderse Vallei, Ede, [9]Dept. of Surgery, Canisius Wilhelmina Hospital, Nijmegen, [10]Dept. of Gastroenterology, Canisius Wilhelmina Hospital, Nijmegen, [11]Dept. of Gastroenterology and Hepatology, University Medical Center Utrecht, Utrecht, The Netherlands

Prijsuitreiking — Brabantzaal

17.20 **Uitreiking MLDS-Award 2015 voor meest impactvolle artikel voor patiënten**

door Prof. dr. P. Fockens en de heer B. Kuipers, directeur ad interim MLDS de uitreiking wordt gevolgd door een korte voordracht.

Presidential Lectures **Brabantzaal**

Voorzitters: J.J. Keller en P.D. Siersema

Presidential Lectures
Wetenschap, Innovatie en Ondernemerschap

17.30 Prof. dr. S.J.H. van Deventer,
Founder & Managing Partner, Forbion Capital Partners

18.00 M. Gilreath, BSc, MBA,
Founder & CEO, EndoChoice

18.30 Einde programma, congresborrel in expositiehal

20.00 Diner in Beneluxzaal

Symposium Ned. Vereniging voor Gastrointestinale Chirurgie **Auditorium**

Voorzitters: E.J. Hazebroek en S. van Laarhoven

Nieuwe technieken voor benigne aandoeningen van de bovenste tractus digestivus

09.00 Endoluminale technieken voor refluxziekte: veelbelovend of is de hype voorbij?
Prof. dr. N.D. Bouvy, chirurg, MUMC, Maastricht

09.15 Endostim®: rationale en eerste ervaringen
Dr. W.E. Hueting, chirurg, Alrijne Zorggroep, Leiden

09.30 Achalasie: Per-orale endoscopische myotomie (POEM): stand van zaken
Prof. dr. P. Fockens, MDL arts, AMC, Amsterdam

09.45 Achalasie: Robot-geassisteerde Heller myotomie
Dr. J.P. Ruurda, chirurg, UMC Utrecht

10.00 Koffiepauze

Symposium Ned. Vereniging voor Gastrointestinale Chirurgie **Auditorium**

Voorzitters: E.B. Wassenaar en E.J.B. Furnee

Hiatus hernia en refluxziekte vanuit diverse hoeken belicht

10.30 Patiënt met refluxklachten: Hoe kijkt de huisarts er eigenlijk tegen aan?
Dr. W.A. Draaisma, chirurg, Meander MC, Amersfoort

10.45 Hoe gelukkig is de reflux patiënt met PPI's?
Dr. A.J. Bredenoord, MDL-arts, AMC, Amsterdam

11.00 Effect van hiatus hernia correctie op chronische hoestklachten
Dr. V.B. Nieuwenhuijs, chirurg, Isala Klinieken, Zwolle

11.15 De oudere patiënt met een intrathoracale maag: watch & wait of opereren?
Dr. E.J. Hazebroek, chirurg, St. Antonius Ziekenhuis, Nieuwegein

11.30 Korte ledenvergadering Nederlandse Vereniging voor Gastroenterologie

12.00 Lunch in expositiehal

Symposium Ned. Vereniging voor Gastrointestinale Chirurgie **Auditorium**

Voorzitters: W.J. Derksen en I.Q. Molenaar

Symposium Benigne HPB

13.00 Symptomatisch en gecompliceerd galsteenlijden
Dr. P.R. de Reuver, chirurg, Royal North Shore Hospital & UTS, Australië

13.30 Rol van de MDL arts, interventie radioloog en chirurg bij de behandeling van het galwegletsel anno 2015
Prof. dr. O.R.C. Busch, chirurg, Academisch Medisch Centrum, Amsterdam

14.00 Cysteuze afwijkingen van het pancreas: dilemma's in diagnostiek, behandeling en follow-up
Dr. D.L. Cahen, MDL-arts, Ziekenhuis Amstelland, Amstelveen

14.30 Leveradenomen: stand van zaken ten aanzien van diagnostiek, behandeling en follow-up
Prof. dr. J.N.M. IJzermans, chirurg, Erasmus MC, Rotterdam

15.00 Theepauze, expositie

15.30 Diagnostiek en behandeling van biliaire pancreatitis
Dr. H.C. van Santvoort, chirurg, Academisch Medisch Centrum, Amsterdam

16.00 Chronische pancreatitis: update voor de dagelijkse praktijk
Dr. R.C. Verdonk, MDL-arts, St. Antonius Ziekenhuis, Nieuwegein

17.00 Einde symposium
Voor het plenaire programma kunt u zich begeven naar de Brabantzaal

Symposium Klinische Hepatologie — Baroniezaal

Voorzitters: U.H.W. Beuers en H.J. Metselaar

Wat is nieuw bij cholestatische leverziekten en levertransplantatie ?

09.30 Primair Biliaire Cholangitis - nieuwe naam, nieuwe pathofysiologische inzichten, nieuwe therapieën
Prof. dr. U.H.W. Beuers, MDL-arts, Academisch Medisch Centrum, Amsterdam

09.55 Incidence and Impact of Decompensating Events in Primary Biliary Cirrhosis Results of an International Follow Up Study of 3030 Patients (p. 55)
M.H. Harms[1], W.J. Lammers[1], H.L.A. Janssen[2], C. Corpechot[3], P. Invernizzi[4], M.J. Mayo[5], P.M. Battezzati[6], A. Floreani[7], A. Pares[8], F. Nevens[9], A.L. Mason, K.V. Kowdley[11], C. Ponsioen[12], T. Bruns[13], G. Dalekos[14], D. Thorburn[15], G.M. Hirschfield[16], N.F. LaRusso[17], A. Lleo[4], N. Cazzagon[7], I. Franceschet[7], L. Caballeria[8], K. Zachou[14], R. Poupon[3], A. Cheung[2], P.J. Trivedi[16], M. Carbone[4], K. Lindor[18], H.R. van Buuren[1], B.E. Hansen[1] – on behalf of the Global PBC Study Group, [1]Dept. of Gastroenterology and Hepatology, Erasmus University Medical Center, Rotterdam, The Netherlands, [2]Liver Clinic, Toronto Western and General Hospital, University Health Network, Toronto, ON, Canada, [3]Centre de Référence des Maladies Inflammatoires des Voies Biliaires, Hôpital Saint-Antoine, APHP, Paris, France, [4]Liver Unit and Center for Autoimmune Liver Diseases, Humanitas Clinical and Research Center, Rozzano (MI), Italy, [5]Digestive and Liver diseases, UT Southwestern Medical Center, Dallas, TX, USA, [6]Dept. of Health Sciences, Università degli Studi di Milano, Milan, Italy, [7]Dept. of Surgery, Oncology and Gastroenterology, University of Padua, Padua, Italy, [8]Liver Unit, Hospital Clínic, CIBERehd, IDIBAPS, University of Barcelona, Barcelona, Spain, [9]Dept. of Hepatology, University Hospitals Leuven, KU Leuven, Leuven, Belgium, [10]Divison of Gastroenterology and Hepatology, University of Alberta, Edmonton, AB, Canada, [11]Liver Care Network, Swedish Medical Center, Seattle, WA, USA, [12]Dept. of Gastroenterology and Hepatology, Academic Medical Center, Amsterdam, The Netherlands, [13]Dept. of Gastroenterology and Hepatology, University of Jena, Jena, Germany, [14]Institute of Internal Medicine and Hepatology, University of Thessaly, Larissa, Greece, [15]The Sheila Sherlock Liver Centre, The Royal Free Hospital, London, United Kingdom, [16]NIHR Biomedical Research Unit and Centre for Liver Research, University of Birmingham, Birmingham, UK, [17]Dept. of Gastroenterology and Hepatology, Mayo Clinic, Rochester, MN, USA, [18]Arizona State University, Phoenix, AZ, USA

10.10 Klinische NVH Prijs 2015: 'Battle' - 3 voornaamste klinische publicaties 2014

10.30 Novel Validated Prognostic Model for Primary Sclerosing Cholangitis (p. 56)
E.M.G de Vries[1], J. Wang[2], K. Williamson[3,4], M.M.G. Leeflang[2], K. Boonstra[1], U.H.W. Beuers[1], R. Chapman[3,4], R.B. Geskus[2], C.Y. Ponsioen[1], [1]Dept. of Gastroenterology and Hepatology, Academic Medical Center, Amsterdam, The Netherlands, [2]Dept. of Clinical Epidemiology, Biostatistics and Bioinformatics, Academic Medical Center, Amsterdam, The Netherlands, [3]Nuffield Department of Medicine, University of Oxford, Oxford, United Kingdom, [4]Translational Gastroenterology Unit, John Radcliffe Hospital, Oxford, United Kingdom

10.45 Uitreiking Klinische NVH Prijs 2015

10.50 Levertransplantatie 2015 in Nederland: nieuwe ontwikkelingen?
Prof. dr. R.J. Porte, chirurg, Universitair Medisch Centrum Groningen

11.15 Liver transplantation waiting list mortality in PSC patients is low as compared to non-PSC patients and consistent across laboratory MELD and MELD exception candidates: a nationwide study in The Netherlands (p. 57)

A.C. de Vries[1], M. Tieleman[1], B. van Hoek[2], A.P. van den Berg[3], W. Polak[1], J. Ringers[2], R.J. Porte[3], C. Konijn[4], R.A. de Man[1], H.R. van Buuren[1], B.E. Hansen[1], H.J. Metselaar[1], [1]Dept. of Gastroenterology and Hepatology, Erasmus University Medical Center, Rotterdam, [2]Dept. of Gastroenterology and Hepatology, Leiden University Medical Center, Leiden, [3]Dept. of Gastroenterology and Hepatology; University Medical Center Groningen, Groningen, [4]Dutch Transplantation Foundation, Leiden, The Netherlands

11.30 Einde programma.

Leden van de NVGE kunnen zich voor de ledenvergadering begeven naar de Brabantzaal

12.00 Lunch in expositiehal

Vrije voordrachten Nederlandse Vereniging voor Hepatologie — Baroniezaal

Voorzitters: M.J. Coenraad en D. Sprengers

Voordrachten in het Nederlands, spreektijd 7 minuten, discussietijd 3 minuten

13.00 Postoperative infectious complications decrease long-term survival after partial hepatic resection for colorectal liver metastases (p. 58)

J. Zhao[1], P. Sawo[1], S.S. Rensen[1], M.M.J. Rouflart[2], K.M.C. van Mierlo, T.M. Lodewick[1], V. van Woerden[1], I.D.G. Klop[1], C.H.C. Dejong[1], S.W.M. Olde Damink[1], [1]Dept. of Surgery, Maastricht University Medical Centre, and NUTRIM School of Nutrition and Translational Research in Metabolism, Maastricht University, Maastricht, [2]Dept. of Medical Microbiology, Maastricht University Medical Centre, Maastricht, The Netherlands

13.10 Autoimmune hepatitis type 1in Dutch elderly patients (p. 59)

M.A.M.C. Pronk[1], J.J. van Silfhout[2], A.P. van den Berg[3], H.R. van Buuren[4], C.M.J. van Nieuwkerk[5], B. van Hoek[6], [1]Dept. of Gastroenterology and Hepatology, Green Heart Hospital, Gouda, [2]Dept. of Internal Medicine, Medical Centre Haaglanden, The Hague, [3]Dept. of Gastroenterology and Hepatology, University Medical Center Groningen, University of Groningen, Groningen, [4]Dept. of Gastroenterology and Hepatology, Erasmus University Medical Center, Rotterdam, [5]Dept. of Gastroenterology and Hepatology, Vrije University Medical Center, Amsterdam, [6]Dept. of Gastroenterology and Hepatology, Leiden University Medical Center, Leiden, The Netherlands

13.20 Value of Magnetic Resonance Cholangiography in Assessment of Non-Anastomotic Biliary Strictures after Liver Transplantation (p. 60)

A.C. den Dulk[1], M.N.J.M. Wasser[2], F.E.J.A. Willemssen[3], M.A. Monraats[2], M. de Vries[3], R. van den Boom[2], J. Ringers[4], H.W. Verspaget[1], H.J. Metselaar[5], B. van Hoek[1], [1]Dept. of Gastroenterology and Hepatology, [2]Dept. of Radiology, [4]Dept. of Surgery, and [3]Dept. of Transplantation, Leiden University Medical Center, Leiden, [5] Dept. of Radiology or Gastroenterology and Hepatology, Erasmus Medical Center, Rotterdam, The Netherlands

13.30 Hepatocellular carcinoma (HCC) in non-cirrhotic livers is associated with steatosis rather than steatohepatitis: Potential implications for HCC pathogenesis (p. 61)

S. van Meer[1], K.J. van Erpecum[1], D. Sprengers[2], H.J. Klümpen[3], P.L.M. Jansen[4], J.N.M. IJzermans[5], P.D. Siersema[1], R.A. de Man[2], J. Verheij[6], [1]Dept. of Gastroenterology and Hepatology, University Medical Center Utrecht, Utrecht, [2]Dept. of Gastroenterology and Hepatology, and [5]Dept. of Surgery, Erasmus Medical Center, Rotterdam, [3]Dept. of Medical Oncology, [4]Dept. of Gastroenterology and Hepatology, and [6]Dept. of Pathology, Academic Medical Center Amsterdam, Amsterdam, The Netherlands

13.40 Plasma cathepsin D levels: a novel tool to predict pediatric hepatic inflammation (p. 62)

S.M.A. Walenbergh[1], T. Houben[1], T. Hendrikx[1], M.L.J. Jeurissen[1], P.J. van Gorp[1], A.C.E. Vreugdenhil[3], M.P. Adriaanse[3], W.A. Buurman[4], M.H. Hofker[5], A. Mosca[6,7], P.J. Lindsey[2], A. Alisi[6,7], D. Liccardo[6], N. Panera[7], G.H. Koek[8], V. Nobili[6,7], R. Shiri-Sverdlov[1], [1]Dept. of Molecular Genetics and [2]Dept. of Population Genetics, Maastricht University Medical Centre, Maastricht, The Netherlands, [3]Dept. of Paediatrics and Nutrition, Maastricht University Medical Centre, Maastricht, The Netherlands, [4]Dept. of Surgery and Toxicology Research Institute Maastricht (NUTRIM), Maastricht University Medical Centre, Maastricht, The Netherlands, [5]Dept. of Molecular Genetics, University Medical Center Groningen, University of Groningen, Groningen, The Netherlands, [6]Hepato-Metabolic Disease Unit, "Bambino Gesù" Children's Hospital, IRCCS, Rome, Italy, [7]Liver Research Unit, "Bambino Gesù" Children's Hospital, IRCCS, Rome, Italy, [8]Internal Medicine, Division of Gastroenterology and Hepatology, Maastricht University Medical Centre, Maastricht, The Netherlands

13.50 The IgG/IgG4 mRNA ratio by quantitative PCR accurately determines diagnosis and treatment response in IgG4-related disease (p. 63)

*L.M. Hubers[1], M.E. Doorenspleet[2,3], E.L. Culver[4,5], L.J. Maillette de Buy Wenniger[1], P.L. Klarenbeek[2,3], R. Chapman[4,5], S.F. van de Graaf[1], J. Verheij[6], T. van Gulik[7], F. Baas[3], E. Barnes[4,5], N. de Vries[2], U. Beuers[1], [1]Dept. of Gastroenterology & Hepatology and Tytgat Institute of Liver and Intestinal Research, Academic Medical Center, Amsterdam, The Netherlands, [2]Dept. of Clinical Immunology & Rheumatology and Amsterdam Rheumatology and immunology Center, Academic Medical Center, Amsterdam, The Netherlands, [3]Dept. of Genome Analysis, Academic Medical Center, Amsterdam, The Netherlands, [4]Translational Gastroenterology Unit, John Radcliffe Hospital, Oxford, United Kingdom, [5]NDM Oxford University, Peter Medawar, Oxford University, Oxford, United Kingdom, [6] Dept. of Pathology, Academic Medical Center, Amsterdam, The Netherlands, [7]Dept. of Surgery, Academic Medical Center, Amsterdam, The Netherlands. - * ° These authors contributed equally*

14.00 Identification of diagnostic items for hepatic and renal cyst infection – an international multispecialty Delphi survey (p. 64)

M.A. Lantinga[1], A.J.M. Darding[1], R.G.L. De Sevaux[2], R.T. Gansevoort[3], M.C. Hogan[4], A. Alam[5], W.M. Bennett[6], C.P. Bleeker-Rovers[7], M. Bobot[8], A.B. Chapman[9], E. Cornec-Le Gall[10], G.T. Everson[11], T.J.G. Gevers[1], J.L. Gorriz[12], Z. Hassoun[13], E. Meijer[3], M. Mrug[14], F. Nevens[15], L.F. Onuchic[16], H.C. Park[17], Y.P. Pei[18], G.B. Piccoli[19], Y.A. Pirson[20], G.K. Rangan[21], D. Soonawala[22], R. Torra[23], F.W. Visser[3], T.J. Watnick[24], F. Jouret[25], N. Kanaan[20], W.J.G. Oyen[26], T. Suwabe[27], V.E. Torres[4], J.P.H. Drenth[1], [1]Dept. of Gastroenterology and Hepatology, Radboud University Medical Center, Nijmegen, The Netherlands, [2]Dept. of Nephrology, Radboud University Medical Center, Nijmegen, The Netherlands, [3]Dept. of Nephrology, University Medical Center Groningen, Groningen, [4]Dept. of Nephrology and Hypertension, Mayo Clinic, Rochester, Minnesota, USA, [5]Dept of Nephrology, McGill University, Montreal, Quebec, Canada, [6]Dept. of Nephrology, Legacy Good Samaritan Hospital, Portland, Oregon, USA, [7]Dept. of Internal Medicine, division of Infectious Diseases, Radboud University Medical Center, Nijmegen, The Netherlands, [8]Dept. of Nephrology, Aix-Marseille University, Marseille, France, [9]Dept. of Nephrology, Emory University School of Medicine, Atlanta, Georgia, USA, [10]Dept. of Nephrology, University Hospital, Brest, France, [11]Dept. of Gastroenterology, University of Colorado School of Medicine, Aurora, Colorado, USA, [12]Dept. of Nephrology, University Hospital Dr Preset, Valencia, Spain, [13]Dept. of Gastroenterology, Cliniques

Universitaires Saint-Luc, Brussels, Belgium, [14]Dept. of Nephrology, University of Alabama at Birmingham, Birmingham, Alabama, USA, [15]Dept. of Hepatology, University Hospital Leuven, Leuven, Belgium, [16]Dept. of Nephrology, University of São Paulo School of Medicine, São Paulo, Brazil, [17]Dept. of Internal Medicine, Seoul National University Hospital, Seoul, Korea, [18]Dept. of Nephrology, University of Toronto, Toronto, Ontario, Canada, [19]Dept. of Clinical and Biological Sciences, San Luigi Gonzaga Hospital, University of Torino, Torino, Italy, [20]Dept. of Nephrology, Cliniques Universitaires Saint-Luc, Brussel, Belgium, [21]Transplant and Renal Research, Westmead Millennium Institute, The University of Sydney, Sydney, Australia, [22]Dept. of Nephrology, Leiden University Medical Center, Leiden, The Netherlands, [23]Dept. of Nephrology, Instituto de Investigaciones Biomédicas Sant Pau, Universitat Autònoma de Barcelona, Barcelona, Spain, [24]Dept. of Nephrology, Johns Hopkins School of Medicine, Baltimore, Maryland, USA, [25]Dept. of Nephrology, University of Liège Hospital (ULg CHU), Liège, Belgium, [26]Dept. of Nuclear Medicine, Radboud University Medical Center, Nijmegen, The Netherlands, [27]Dept. of Nephrology, Toranomon Hospital, Tokyo, Japan

14.10 Hepatocellular carcinoma has a more aggressive disease course in patients with HCV genotype 3compared to other genotypes (p. 65)

R. Maan[1], A.J. van der Meer[1], J.J. Feld[2], H. Wedemeyer[3], J.F. Dufour[4], F. Lammert[5], A. Duarte-Rojo[2], M.P. Manns[3], S. Zeuzem[6], H.L.A. Janssen[1,2], B.E. Hansen[1], B.J. Veldt[1], R.J. de Knegt[1], [1]Dept. of Gastroenterology and Hepatology, Erasmus MC University Medical Center, Rotterdam, The Netherlands, [2]Toronto Centre for Liver Disease, Toronto Western & General Hospital, University Health Network, Toronto, Canada, [3]Dept. of Gastroenterology, Hepatology, and Endocrinology, Medical School Hannover, Hannover, Germany, [4]Hepatology, Department of Clinical Research, University of Bern, Bern, Switzerland, [5]Dept. of Medicine II, Saarland University Medical Center, Homburg, Germany, [6]Medizinische Klinik 1, Klinikum der Johann Wolfgang Goethe-Universität, Frankfurt am Main, Germany

14.20 Predictors of treatment response following aspiration sclerotherapy of hepatic cysts: an international pooled analysis of individual patient data (p. 66)

T.F.M. Wijnands[1], M. Ronot[2], T.J.G. Gevers[1], J. Benzimra[2], L.J. Schultze Kool[3], V. Vilgrain[2], J.P.H. Drenth[1], [1]Dept. of Gastroenterology and Hepatology, Radboud University Medical Center, Nijmegen, The Netherlands, [2]Dept of Radiology, Beaujon University Hospitals Paris Nord Val de Seine, Clichy, France, [3]Dept. of Radiology, Radboud University Medical Center, Nijmegen, The Netherlands

14.30 **MLDS-voordracht:** Intracellular traffic jam in NASH the role of oxLDL in triggering hepatic inflammation (p. 67)

S.M.A. Walenbergh, T. Hendrikx, R. Shiri-Sverdlov, Dept. of Molecular Genetics, Maastricht University, The Netherlands

14.40 Impact of genetic variation of the AVP1a receptor on the presence of circulatory failure in patients with acute decompensation of liver cirrhosis or acute-on-chronic liver failure (p.68)

J.C. Kerbert[1], J.J. Schaapman[1], J.J. van der Reijden[1], A. Amoros Navarro[2,] A. McCormick[3], B. van Hoek[1], V. Arroyo[4], P. Ginès[4], R. Jalan[5], V. Vargas[6], R. Stauber[7], H.W. Verspaget[1], M.J. Coenraad[1,] [1]Dept. of Gastroenterology and Hepatology, Leiden University Medical Center, Leiden, The Netherlands, [2]Data Management Center, Hospital Clinic de Barcelona, Barcelona, Spain, [3]Dept. of Gastroenterology and Hepatology, St Vincent's University Hospital, Dublin, Irelan, [4]Liver Unit, Hospital Clinic de Barcelona, Barcelona, Spain, [5]Dept. of Gastroenterology and Hepatology, University College London, London, United Kingdom, [6]Dept. of Gastroenterology and Hepatology, Vall d'Hebron University Hospital, Barcelona, Spain, [7]Dept. of Internal Medicine, Medical University of Graz, Graz, Austria

14.50 Impact of chemotherapy-associated liver injury on postoperative outcomes in patients with colorectal liver metastases: a multi-center study (p. 69)

J. Zhao, K.M.C. van Mierlo, S.S. Rensen, F.G. Schaap, C.H.C. Dejong, S.W.M. Olde Damink, On behalf of CALI consortium, Dept. of Surgery, Maastricht University Medical Centre, and NUTRIM School of Nutrition and Translational Research in Metabolism, Maastricht University, Maastricht, The Netherlands

Donderdag 8 oktober 2015

15.00 Theepauze en ledenvergadering NVH

Vrije voordrachten Nederlandse Vereniging voor Hepatologie — Baroniezaal

Voorzitters: M. van der Valk en J.M. Vrolijk

Voordrachten in het Nederlands, spreektijd 7 minuten, discussietijd 3 minuten

15.30 Final results of peginterferon alfa-2b add-on during long-term nucleos(t)ide analogue therapy in HBeAg-positive patients – a multicenter randomized controlled trial (PEGON study) (p. 70)

H. Chi[1], Q. Xie[2], N.P. Zhang[3], X. Qi[4], L.. Chen[4], S. Guo[2], Q. Guo[2], P. Arends[1], J.Y. Wang[3], E. Verhey[1], R.J. de Knegt[1], B.E. Hansen[1], H.L.A. Janssen[1,5], [1]Dept. of Gastroenterology and Hepatology, Erasmus MC University Medical Center Rotterdam, Rotterdam, The Netherlands, [2]Dept. of Infectious Diseases, Ruijin Hospital, Jiaotong University, Shanghai, China, [3]Dept. of Gastroenterology and Hepatology, Zhongshan hospital, Fudan University, Shanghai, China, [4]Dept. of Hepatitis Disease, Shanghai Public Health Clinical Center, Fudan University, Shanghai, China, [5]Toronto Centre for Liver Disease, University Health Network, Toronto, Canada

15.40 A Randomized Prospective Open-label Trial Comparing Peginterferon Plus Adefovir or Tenofovir Combination Therapy Versus No Treatment in HBeAg-Negative Chronic Hepatitis B Patients with a Low Viral Load: Interim Analysis at End of Treatment (p. 71)

L. Jansen[1], A. de Niet[1], F. Stelma[1], S.B. Willemse[1], S.D. Kuiken[2], S. Weijer[3], C.M. van Nieuwkerk[4], H.L. Zaaijer[5,6], R. Molenkamp[5], R.B. Takkenberg[1], M. Koot[7], J. Verheij[8], U. Beuers[1], H.W. Reesink[1], [1]Dept. of Gastroenterology and Hepatology, Academic Medical Center, Amsterdam, [2]Dept. of Gastroenterology and Hepatology, Sint Lucas Andreas hospital, Amsterdam, [3]Dept. of Internal Medicine, Medical Center Zuiderzee, Lelystad, [4]Dept. of Gastroenterology and Hepatology, VU Medical Center, Amsterdam, [5]Dept. of Medical Microbiology, Academic Medical Center, Amsterdam, [6]Dept. of Blood-borne Infections, Sanquin, Amsterdam, [7]Dept. of Virus Diagnostic Services, Sanquin, Amsterdam, [8]Dept. of Pathology, Academic Medical Center, Amsterdam, The Netherlands

15.50 Hepatitis B core-related antigen level decline in the first 12weeks of peginterferon treatment is associated with response in HBeAg-negative chronic hepatitis B (p. 72)

M.J.H. van Campenhout[1], W.P. Brouwer[1], V. Rijckborst[1], R.J. de Knegt[1], A. Boonstra[1], H.L.A. Janssen[1, 2], B.E. Hansen[3], [1]Dept. of Gastroenterology and Hepatology, Erasmus Medical Center Rotterdam, Rotterdam, The Netherlands, [2]Toronto Centre for Liver Disease, Toronto Western and General Hospital, University Health Network, Toronto, Canada, [3]Dept. of Public Health, Erasmus MC University Medical Center, Rotterdam, The Netherlands

16.00 Intrahepatic IP-10 expression is associated with plasma IP-10 levels and a response marker for HBeAg-positive chronic hepatitis B patients treated with peginterferon and adefovir (p. 73)

S.B. Willemse[1], L. Jansen[1], A. de Niet[1], M.J. Tempelmans Plat-Sinnige[2], R.B. Takkenberg[1], J. Verheij[3], H.W. Reesink[1,2], [1]Dept. of Gastroenterology and Hepatology, Academic Medical Center, [2]Dept. of Experimental Immunology, Academic Medical Center, [3]Dept. of Pathology, Academic Medical Center, The Netherlands

16.10 Hepatitis E infection in a tertiary referral center in The Netherlands: evaluating its clinical course and treatment outcome (p. 74)

C.M. Nijskens[1], S.D. Pas[2], A.A. van der Eijk[2], R.A. de Man[1], [1]Dept. of Gastroenterology and Hepatology, [2]Dept. of Viroscience, Erasmus University Medical Centre, Rotterdam, The Netherlands

16.20 Effects of preventive versus "on-demand" nutritional support on paid labour productivity, physical exercise and performance status during PEG-interferon-containing treatment for chronic hepatitis C (p. 75)

E.J. Huisman[1], S. van Meer*[1], B. van Hoek[2], H. van Soest[3], C.M.J. van Nieuwkerk[4], J.E. Arends[5], P.D. Siersema[1], K.J. van Erpecum[1], [1]Dept. of Gastroenterology and Hepatology, University Medical Center Utrecht, Utrecht, [2]Dept. of Gastroenterology and Hepatology, University Medical Center Leiden, Leiden, [3]Dept. of Gastroenterology and Hepatology, Medical Center Haaglanden, The Hague, [4]Dept. of Gastroenterology and Hepatology, VU Medical Center Amsterdam, [5]Dept. of Internal Medicine and Infectious Diseases, University Medical Center Utrecht, Utrecht, The Netherlands, *These authors contributed equally to this manuscript and share first authorship*

16.30 **MLDS-voordracht**: FGF1, an old newcomer in the battle against Metabolic Syndrome (p. 76)

T. van Zutphen, W. Liu, J.W. Jonker, University Medical Center Groningen, Groningen, The Netherlands

16.40 Treatment of (decompensated) cirrhotic hepatitis C patients with direct acting antivirals: first experience in 76 patients (p. 77)

M. van Tilborg, M.A.A. Claassen, E. Van Helden, R.J. de Knegt, Dept. of Gastroenterology and Hepatology, Erasmus MC University Medical Center, Rotterdam, The Netherlands

16.50 A single subcutaneous dose of 2mg/kg or 4 mg/kg of RG-101, a galnac-conjugated oligonucleotide with antagonist activity against miR-122, results in significant viral load reductions in chronic hepatitis C patients (p. 78)

M.H. van der Ree[1], J.M.L. de Vree[2], F. Stelma[1], S.B. Willemse[1], M. van der Valk[1], S. Rietdijk[1, 3], R. Molenkamp[4], C.J. Schinkel[4], S. Hadi[5], M. Harbers[5], A. van Vliet[5], J. Udo de Haes[5], P. Grint[6], S. Neben[6], N. Gibson[6], H.W. Reesink[1], [1]Dept. of Gastroenterology and Hepatology, Academic Medical Center, Amsterdam, The Netherlands, [2]Dept. of Gastroenterology and Hepatology, University Medical Center Groningen, Groningen, The Netherlands, [3]Dept. of Gastroenterology and Hepatology, Onze Lieve Vrouwe Gasthuis, Amsterdam, The Netherlands, [4]Dept. of Medical Microbiology, Clinical Virology Laboratory, Academic Medical Center, Amsterdam, The Netherlands, [5]PRA Healthsciences, Zuidlaren, The Netherlands, [6]Regulus Therapeutics, San Diego, CA, USA

17.00 Einde symposium

Voor de President Select kunt u zich begeven naar de Brabantzaal

Vrije voordrachten Nederlandse Vereniging Gastrointestinale Chirurgie Parkzaal

Voorzitters: H.A. Marsman en D. Roos

Voordrachten in het Nederlands, spreektijd 7 minuten, discussietijd 3 minuten

10.00 A low skeletal muscle mass is independently associated with elevated base-line troponin levels in patients at risk for coronary artery disease undergoing abdominal cancer surgery. (p. 79)

J.L.A. van Vugt[1,2], D. Boerma[2], I.M. Dijkstra[3], T.L. Bollen[4], J.N.M. IJzermans[1], P.G. Noordzij[5], [1]Dept. of Surgery, Erasmus University Medical Center, Rotterdam, [2]Dept. of Surgery, [3]Dept. of Clinical Chemistry, [4]Dept. of Radiology and [5]Dept. of Anesthesiology, Intensive Care and Pain Medicine, St Antonius Hospital, Nieuwegein, The Netherlands

10.10 Skeletal muscle quality predicts postoperative morbidity after neoadjuvant chemoradiation and resection for rectal cancer (p. 80)

A.E.M. Berkel[1], M. Brusse-Keizer[2], J.M. Klaase[1], [1]Dept. of Surgery, Medisch Spectrum Twente, Enschede, [2]Medical School Twente, Medisch Spectrum Twente, Enschede, The Netherlands

10.20 Predictors of severe morbidity after cytoreductive surgery and HIPEC in patients with colorectal peritoneal carcinomatosis (p. 81)

G.A. Simkens, T.R. van Oudheusden, M.D. Luyer, S.W. Nienhuijs, G.A. Nieuwenhuijzen[1], H.J. Rutten, I.H. de Hingh, Department of Surgical Oncology, Catharina Hospital, Eindhoven, The Netherlands

10.30 Cytoreductive surgery and HIPEC in patients with peritoneal carcinomatosis from rectal cancer is feasible and provides long-term survival (p. 82)

G.A. Simkens[1], T.R. van Oudheusden[1], H.J. Braam[2], S.W. Nienhuijs[1], B. van Ramshorst[2], I.H. de Hingh[1], [1]Dept of Surgical Oncology, Catharina Hospital, Eindhoven, The Netherlands, [2]Dept of Surgical Oncology, St. Antonius Hospital, Nieuwegein, The Netherlands

10.40 Timing of systemic treatment in patients undergoing cytoreductive surgery and HIPEC for colorectal peritoneal carcinomatosis (p. 83)

R. Devilee[1], T.R. van Oudheusden[1], H.J. Rutten[1,2], V.J. Verwaal[1], S.W. Nienhuijs[1], I.H. de Hingh[1], [1]Dept. of Surgical Oncology, Catharina Hospital, Eindhoven, [2]Dept. of Surgical Oncology, Maastricht University Medical Center, Maastricht, The Netherlands

10.50 Quality of life in rectal cancer patients undergoing neo-adjuvant therapy followed by low anterior resection or abdominoperineal resection (p. 84)

A.M. Couwenberg[1], J.P.M. Burbach[1], O. Reerink[1], W.M.U. van Grevenstein[2], M. van Vulpen[1], A.B. Smits[3], H.M. Verkooijen[4], [1]Dept. of Radiotherapy, University Medical Center Utrecht, Utrecht, [2]Dept. of Surgery, University Medical Center Utrecht, Utrecht, [3]Dept. of Surgery, St. Antonius Hospital, [4]Trial office, Imaging Division, UMC Utrecht, The Netherlands

11.00 3D-HRAM and Peranal fistulas: pressure profiles are promising (p. 85)

R.J.F. Felt-Bersma[1,2], M.S. Vlietstra[1], I.J.M. Han-Geurts[2], C.B.H. Deen-Molenaar[2], [1]VU Medical Center, Amsterdam, [2]Proctosclinic, Bilthoven, The Netherlands

11.10 Long term follow up of patients treated for enterocutaneous fistula (p. 86)
I.B.M. Ploegmakers[1], S.W.M. Olde Damink[1], J. Melenhorst[1], R.G.J. Visschers[2], J.H. Stoot[2], M.N. Sosef[3], W.G. van Gemert[1], S.O. Breukink[1], [1]Maastricht Universitair Medisch Centrum, Maastricht, [2]Orbis Medisch Centrum, Sittard, [3]Atrium Medisch Centrum, Heerlen, The Netherlands

11.20 Catheter drainage versus relaparotomy for severe pancreatic fistula after pancreatoduodenectomy: a multicentre propensity-matched analysis (p. 87)
F.J. Smits[1], H.C. van Santvoort[1,2], M.G. Besselink[2], M.C. Batenburg[1], R.A. Slooff[1], O.R. Busch[2], J.A. Tol[2], C.H. van Eijck[3], E. van der Harst[4], D. Boerma[5], R.M. van Dam[6], D.P. van Dijk[6], I.H. de Hing[7], K.P. de Jong[8], S. Festen[9], I.H. Borel Rinkes[1], I.Q. Molenaar[1], [1]Dept. of Surgery, University Medical Center Utrecht, Utrecht, [2]Dept. of Surgery, Academic Medical Center, Amsterdam, [3]Dept. of Surgery, Erasmus Medical Center, Rotterdam, [4]Dept. of Surgery, Maasstad Hospital, Rotterdam, [5]Dept. of Surgery, St. Antonius Hospital, Nieuwegein, [6]Dept. of Surgery, Maastricht University Medical Center, [7]Dept. of Surgery, Catharina Hospital, Eindhoven, [8]Dept. of Surgery, University Medical Center Groningen, Groningen, [9]Dept. of Surgery, Onze Lieve Vrouwe Gasthuis, Amsterdam

11.30 Einde programma
U kunt zich voor de NVGE ledenvergadering begeven naar de Brabantzaal

12.00 Lunch in expositiehal

Vrije voordrachten Ned. Vereniging voor Gastrointestinale Chirurgie **Parkzaal**

Voorzitters: J. Heisterkamp en F.J.H. Hoogwater

Voordrachten in het Nederlands, spreektijd 7 minuten, discussietijd 3 minuten

13.00 Is there a difference in laparoscopic cholecystectomy performed by a resident or a surgeon in Dutch clinics? (p.88)
B.J.G.A. Corten[1], J.W.Leijtens[2], L. Janssen[1], J.L.M. Konsten[1], [1]VieCuri Medical Center, Venlo, [2]Laurentius Hospital, Roermond, The Netherlands

13.10 Influence of the use of decision tools for appendicitis and diverticulitis on diagnostic certainty in the Emergency Department (p.89)
S.L. Gans[1], J.J.S. Kiewiet[1], B. Mirck[1], S.C. Donkervoort[2], B.C. Vrouenraets[4], D.J. Gouma[1], M.A. Boermeester[1], [1]Dept. of Surgery, Academic Medical Center, [2]Dept. of Surgery, Onze Lieve Vrouwe Gasthuis, Amsterdam, [3]Dept. of Surgery, Albert Schweitzer Hospital, Dordrecht, [4]Dept. of Surgery, Sint Lucas Andreas Hospital, Amsterdam, The Netherlands

13.20 Acute laparoscopic and open sigmoidectomy for perforated diverticulitis; a propensity score-matched cohort (p.90)
S. Vennix[1,2], D.J. Lips[3], S. Di Saverio[4], B.A. van Wagensveld[5], W.J. Brokelman[3], M.F. Gerhards[6], A.A. van Geloven[7], S. van Dieren[8], J.F. Lange[2], W.A. Bemelman[1], On behalf of the collaborative Ladies study group, [1]Dept. of Surgery, Academic Medical Center, Amsterdam, The Netherlands, [2]Dept. of Surgery, Erasmus MC University Medical Center, Rotterdam, The Netherlands, [3]Dept. of Surgery, Jeroen Bosch Hospital, 's-Hertogenbosch, The Netherlands, [4]Dept. of Surgery, Hospital Maggiore, Bologna, Italy, [5]Dept. of Surgery, Sint Lucas Andreas Hospital, Amsterdam, The Netherlands, [6]Dept. of Surgery, OLVG Hospital,

Amsterdam, The Netherlands, [7]Dept. of Surgery, Tergooi Hospital, Hilversum, The Netherlands, [8]Clinical Research Unit, Academic Medical Center, Amsterdam, The Netherlands

13.30 Patterns of care and overall survival in elderly patients with resectable esophageal cancer in The Netherlands: a population-based study (p. 91)

M. Koëter[1], M. van Putten[2], R.H.A. Verhoeven[2], V.E.P.P. Lemmens[2,3], G.A.P. Nieuwenhuijzen[1], [1]Dept. of Surgery, Catharina Hospital Eindhoven, [2]Dept. of Research, Netherlands Comprehensive Cancer Organisation (IKNL), [3]Dept. of Public Health, Erasmus University Medical Centre Rotterdam, The Netherlands

13.40 Aortic calcifications increase the risk of anastomotic leakage after Ivor-Lewis esophagectomy (p. 92)

L. Goense[1,2], P.S.N. van Rossum[1,2], T.J. Weijs[2,3], M.J. van Det[4], G.A. Nieuwenhuijzen[3], M.D. Luyer[3], R. van Hillegersberg[1], J.P. Ruurda[1], E.A. Kouwenhoven[4], [1]Dept. of Surgery, University Medical Center Utrecht, Utrecht, [2]Dept. of Radiotherapy, University Medical Center Utrecht, Utrecht, [3]Dept. of Surgery, Catharina Hospital Eindhoven, Eindhoven, [4]Dept. of Surgery, Ziekenhuisgroep Twente, Almelo, The Netherlands

13.50 The prognostic value of a modified tumor regression grade after neoadjuvant chemoradiotherapy and resection of esophageal carcinoma (p. 93)

M.C.J. Anderegg[1], S.M. Lagarde[1], W.A.A. Borstlap[1], S.S. Gisbertz[1], S.L. Meijer[2], M.C.C.M. Hulshof[3], J.J.G.H.M. Bergman[4], O.R.C. Busch[1], H.W.M. van Laarhoven[5], M.I. van Berge Henegouwen[1], [1]Dept. of Surgery, [2]Dept. of Pathology, [3]Dept. of Radiation Oncology, [4]Dept. of Gastroenterology and [5]Dept. of Clinical Oncology, Academic Medical Center, Amsterdam, The Netherlands

14.00 The unfounded poor reputation of surgical treatment of GERD in The Netherlands (p. 94)

R.C. Tolboom, W.A. Draaisma, .I.A.M.J. Broeders, Dept. of Surgery, Meander Medical Center, Amersfoort, The Netherlands

14.10 Recreating the physiological intussusception at the GE-junction to control refractive GERD: The gastro-esophageal valvuloplasty (p. 95)

R.C. Tolboom[1,2], M. Meyer[2], B. Rawashdeh[2], M. Moslemi[2], B. Tempesta[2], K. Maas[2], F. Gharagozloo[2], [1]Dept. of Surgery, Meander Medical Center, Amersfoort, The Netherlands, [2]Dept. of Thoracic Surgery, The University of Arizona Medical Center, Tucson, AZ, USA

14.20 Different approaches for redo antireflux surgery: The robot-assisted minimal invasive abdominal route versus the open thoracic approach (p. 96)

R.C. Tolboom[1,2], W.A. Draaisma[1], F. Gharagozloo[2], I.A.M.J. Broeders[1], [1]Dept. of Surgery, Meander Medical Center, Amersfoort, The Netherlands, [2]Dept. of Thoracic Surgery, The University of Arizona Medical Center, Tucson, AZ, USA

14.30 Laparoscopic adjustable gastric banding (LAGB) after failed gastric bypass: is the additional weight loss worth the risks? (p. 97)

M. Uittenbogaart[1], W.K. Leclercq[1], A. Luijten[1], S.W.M. Olde Damink[2], F.M. van Dielen[1], [1]Obesity Centre Máxima, Máxima Medical Centre, Veldhoven, [2]Dept. of Surgery, Maastricht University Medical Center & Nutrim School for Nutrition, Toxicology and Metabolism, Maastricht University, Maastricht, The Netherlands

14.40 Introduction of laparoscopic gastrectomy for gastric cancer in a Western tertiary referral centre: a prospective cost analysis pilot study during the learning curve (p. 98)
J.J.W. Tegels[1], C.E. Silvius[1], F.E.N.M. Spauwen[1], K.W.E. Hulsewé[1], A.G.M. Hoofwijk[1], J.H.M.B. Stoot, [1]Atrium-Orbis Medical Center, Sittard-Geleen, The Netherlands

14.50 The 'bariatric' Roux-en-Y reconstruction in laparoscopic gastrectomy for advanced gastric cancer (p. 99)
J.P.M. Schots[1], M.D.P. Luyer[1], I.H.J.T. de Hingh[1], G.A.P. Nieuwenhuijzen[1], [1]Dept. of Surgery, Catharina Hospital, The Netherlands

15.00 Theepauze, expositie

Vrije voordrachten Sectie Gastrointestinale Oncologie — Parkzaal

Voorzitters: G.H. de Groot en L. Hol

Voordrachten in het Nederlands, spreektijd 7 minuten, discussietijd 3 minuten

15.30 LINE1-PCR: a new, clinically applicable sequencing tool for the detection of genomic instability in oesophageal adenocarcinoma (p. 100)
M.C.J. van Lanschot[1,2], S.S. Zeki[1], R.C. Fitzgerald[1], [1]MRC Hutchison, Cambridge University, Cambridge, United Kingdom, [2]Dept. of Gastroenterology and Hepatology, Academic Medical Centre, Amsterdam, The Netherlands

15.40 Hospital of diagnosis affects the probability of curative treatment for oesophageal and gastric cancer in The Netherlands; a nationwide study (p. 101)
M. van Putten[1], M. Koëter[2], R.H.A. Verhoeven[1], J.W. van Sandick[3], H.W.M. van Laarhoven[4], J.T.M. Plukker[5], V.E.P.P. Lemmens[1,5], M.C.C.M. Hulshof[6], B.P.L. Wijnhoven[7], G.A.P. Nieuwenhuijzen[2], [1]Dept. of Research, Netherlands Comprehensive Cancer Organisation (IKNL), [2]Dept. of Surgery, Catharina Hospital Eindhoven, [3]Dept. of Surgery, The Netherlands Cancer Institute, Amsterdam, [4]Dept. of Medical Oncology, Academic Medical Center of Amsterdam, [5]Dept. of Surgery, University Medical Centre Groningen, Groningen, [6]Dept. of Public Health, Erasmus MC - University Medical Centre Rotterdam, [7]Dept. of Radiotherapy, Academic Medical Center, Amsterdam, [8]Dept. of Surgery, Erasmus MC - University Medical Centre Rotterdam, The Netherlands

15.50 Serum Human Epididymal protein 4 (HE4) as biomarker for the differentiation between epithelial ovarian cancer and ovarian metastases of gastrointestinal origin (102)
A. Stiekema[1], Q.J.A.J. Boldingh[1], C.M. Korse[2], V. van der Noort[3], H. Boot[4], W.J van Driel[1], G.G. Kenter [1], C.A.R Lok[1] [1]Department of gynecologic oncology, Center for Gynecologic Oncology Amsterdam, location Antoni van Leeuwenhoek hospital, Amsterdam [2]Department of Clinical chemistry, Antoni van Leeuwenhoek Hospital, Amsterdam, [3]Department of Biometrics, Antoni van Leeuwenhoek hospital, Amsterdam, [4]Department of Gastroenterology, Antoni van Leeuwenhoek hospital, Amsterdam, The Netherlands.

16.00 HE4 immunohistochemistry in ascites for the differentiation between ovarian cancer and gastrointestinal malignancies (p. 103) *A. Stiekema[1], K.K. van de Vijver[2], C.M. Korse[3], H. Boot[4], W.J. van Driel[1], G.G. Kenter[1], C.A.R. Lok[1], 1Dept. of Gynecologic Oncology, Center for Gynecologic Oncology Amsterdam, Antoni van Leeuwenhoek Hospital, Amsterdam, 2Dept. of Pathology, Antoni van Leeuwenhoek Hospital, Amsterdam, 3Dept. of Clinical Chemistry, Antoni van Leeuwenhoek Hospital, Amsterdam, 4Dept. of Gastroenterology, Antoni van Leeuwenhoek Hospital, Amsterdam, The Netherlands*

16.10 Effectiveness and safety of transarterial embolization in patients with liver metastases of a neuroendocrine tumour (p. 104) *W.H.M. Verbeek[1], S.E. van Dijk[1], M. Meier[3], M.E. van Leerdam[1], M.E.T. Tesselaar[2], W. Prevoo[3], [1]Dept. of Gastroenterology, [2]Dept. of Medical Oncology and [3]Dept. of Intervention Radiology, Antoni van Leeuwenhoek -The Netherlands Cancer Institute, Amsterdam, The Netherlands*

16.20 Mismatch repair deficiency in radiotherapy- and chemotherapy-associated colorectal cancer (p. 105) *L.S. Rigter[1], P. Snaebjornsson[2], W.N.M. Dinjens[3], E.H. Rosenberg[2], A. Broeks[4], B.M.P. Aleman[5], J. ten Hoeve[6], I.J. Goossens-Beumer[7], M.H.J. Snel[7], G.A. Meijer[2], H. te Riele[8], F.E. van Leeuwen[9], M.E. van Leerdam[1], [1]Dept. of Gastroenterology, Netherlands Cancer Inst, Amsterdam, [2]Dept. of Pathology, Netherlands Cancer Inst., Amsterdam, [3]Dept. of Pathology, Erasmus MC, University Medical Center, Rotterdam, [4]Division of Molecular Pathology, Netherlands Cancer Inst, Amsterdam, [5]Dept. of Radiation Oncology, Netherlands Cancer Inst, Amsterdam, [6]Division of Computational Cancer Biology, Netherlands Cancer Inst, Amsterdam, [7]Product Development & Product Support, Agendia NV, Amsterdam, [8]Division of Biological Stress Response, Netherlands Cancer Inst, Amsterdam, [9]Division of Epidemiology, Netherlands Cancer Institute, Amsterdam, The Netherlands*

16.30 Accuracy of preoperative diagnosis and surgical management of patients with pancreatic cysts (p. 106) *S.J. Lekkerkerker[1], M.G.H Besselink[2], O.R. Busch[2], E.A.J. Rauws[1], P. Fockens[1], J.E. van Hooft[1], [1]Dept. of Gastroenterology and Hepatology, Academic Medical Center, University of Amsterdam, Amsterdam, [2]Dept. of Surgery, Academic Medical Center, University of Amsterdam, Amsterdam, The Netherlands*

16.40 Preoperative biliary drainage in patients undergoing pancreatoduodenectomy in The Netherlands (p. 107) *M.J.A.M. Bakens[1], L.B. van Rijsen[2], V. van Woerden[3], M.G. Besselink[2], D. Boerma[4], O.R. Busch[2], C.H.C. Dejong[3,5], M.F. Gerhards[6], Y. Keulemans[7], J.M. Klaase[8], M.D. Luyer[1], I.Q. Molenaar[9,] J. Oor[4], M.W. Steen[6], D.S. Tseng[9], D.J. Gouma[2], I.H.J.T. de Hingh[1], [1]Dept. of Surgery, Catharina Hospital, Eindhoven, [2]Dept. of Surgery, Academic Medical Center, Amsterdam, [3]Dept. of Surgery, Maastricht University Medical Center, Maastricht, [4]Dept. of Surgery, Sint Antonius, Nieuwegein, [5]NUTRIM School for Nutrition Toxicology and Metabolism, and GROW School for Oncology & Developmental Biology, Maastricht, [6]Dept. of Surgery, Onze Lieve Vrouwe Gasthuis, Amsterdam, [7]Dept. of Gastroenterology, Maastricht University Medical Center, Maastricht, [8]Dept. of Surgery, Medical Spectrum Twente, Enschede, [9]Dept. of Surgery, Utrecht Medical Center, Utrecht, The Netherlands*

16.50 Prognostic value of pretreatment tumor extent in patients treated with neoadjuvant chemoradiotherapy plus surgery for esophageal or junctional cancer (p. 108)*J. Shapiro[1], K. Biermann[2], D. van Klaveren[3], S.L. Meijer[4], G.J.A. Offerhaus[4,5], F.J.W. ten Kate[2,5], M.I. van Berge Henegouwen[6], E.W. Steyerberg[3], B.P.L. Wijnhoven[1], J.J.B. van Lanschot[1], [1]Dept. of Surgery, Erasmus MC, UMC Rotterdam, [2]Dept. of Pathology, Erasmus MC, UMC, Rotterdam, [3]Dept. of Public Health, Erasmus MC, UMC, Rotterdam, [4]Dept. of Pathology, Amsterdam Medical Center, Amsterdam, [5]Dept. of Pathology, UMC Utrecht, [6]Dept. of Surgery, AMC, Amsterdam, The Netherlands.*

17.00 Einde programma, vervolg plenair programma Brabantzaal (zie pag.14-15)

Seniorenprogramma **Zaal 81**

Voorzitters: J.F.W.M. Bartelsman en H.P.M. Festen

12.00	Ontvangst en lunch tot 13.00 in de Uithof Lounge (gele zone)
13.00	Wie zijn wij? Wat doen wij? *Joep Bartelsman*
13.10	FILM: interview Joep Bartelsman met Guido Tytgat in oude Wilhelmina Gasthuis
13.30	Nieuwe ziektebeelden in de MDL *Guido Tytgat*
13.50	Evidence-based data versus 'evidence-based' guidelines *Solko Schalm*
14.10	Casuistiek *Hans Tuynman*
14.30	Casus uit mijn academische nadagen *Wilco Lesterhuis*
14.50	Einde programma
15.00	Theepauze
15.30	Vervolgprogramma in de Brabantzaal met Symposium van de Sectie Neurogastroenterologie en Motiliteit: *'Microbes, food and functional bowel disorders'* gevolgd door President Select , zie pagina 13 e.v.
18.30	Borrel en diner

Vrijdag 9 oktober 2015

Symposium Sectie Gastrointestinale Endoscopie **Auditorium**

Voorzitters: T. Römkens en F. Vleggaar

Video Sessie - Sectie Gastrointestinale Endoscopie

09.30 Een door de Sectie Gastrointestinale Endoscopie georganiseerd programma met zonderlinge video's van eigen bodem

10.30 Koffie en thee in de expositiehal

Symposium Bevolkingsonderzoek Darmkanker **Auditorium**

Voorzitters: J.J. Keller en A.A.M. Masclee

11.00 Reflectie op 1 jaars data bevolkingsonderzoek darmkanker
Prof. dr. E. Dekker, MDL-arts, Academisch Medisch Centrum, Amsterdam

11.20 Immunologische FOBT als eerste stap van screening: goed genoeg?
Prof. dr. J.B.M.J. Jansen, Elkerliek Ziekenhuis, Helmond

11.40 Toekomst van de ontlastingtest: moleculaire markers?
Prof. dr. G.A. Meijer, NKI Antoni van Leeuwenhoekhuis, Amsterdam

12.00 Lessen uit de praktijk
Mw. E.J.C. Bongers MBA,
Raad van Bestuur Bevolkingsonderzoek Midden-West en
Dr. S.Y. de Boer, MDL-arts
RC-MDL, Bevolkingsonderzoek Midden-West

12.20 BVO coloscopie: over kwaliteit, capaciteit, kosten en differentiatie
Mevr. H. Tijink, Achmea en
Dr. L.A. van der Waaij, penningmeester NVMDL

12.40 Bevolkingsonderzoek darmkanker Nederland in perspectief
Dr. I. Lansdorp-Vogelaar, Afdeling Maatschappelijke Gezondheidszorg, Erasmus MC, Rotterdam

13.00 Lunch in expositiehal

Symposium Sectie Gastrointestinale Endoscopie **Auditorium**

Voorzitters: J.W. Poley en R.C. Verdonk

Vrijdagmiddagproblemen: trouble shooting in endoscopy

Iedereen kent ze: de moeilijke patiënt die opduikt op uw programma op vrijdagmiddag of waar u tijdens een druk programma even over gebeld wordt. Uw collega kreeg het niet voor elkaar, en nu bent u aan de beurt. Tijdens dit dynamische symposium zult u praktische tips krijgen over hoe te handelen bij dergelijke endoscopische problemen.

14.00	Gefaalde coecumintubatie: hoe komt u er wel in? *Prof. dr. E. Dekker, MDL-arts, AMC, Amsterdam*
14.20	Geannuleerde poliepectomie: hoe krijgt u hem er wel uit? *Dr. L.M.G. Moons, MDL-arts, UMCU, Utrecht*
14.40	Gecompliceerde bloeding of perforatie: hoe krijgt u het wel droog en dicht? *Dr. E.J. Schoon, MDL-arts, Catharina Ziekenhuis, Eindhoven*
15.00	Gefaalde canulatie van de galweg: hoe komt u er wel in? *Dr. J.W. Poley, EMC, Rotterdam*
15.20	Geen endoscopische diagnose: weet u het wel?
15.30	Einde symposium

Vrijdag 9 oktober 2015

Symposium Sectie Inflammatoire Darmziekten — Baroniezaal

Voorzitter: G. Dijkstra en R. West

Wat is kwaliteit binnen de IBD?

09.30 IBD-zorg in Nederland
Dr. B. Oldenburg, MDL-arts, Universitair Medisch Centrum Utrecht

09.45 Endoscopie en IBD: beeldherkenning en endoscopie scores
Prof. dr. G. Van Assche, gastroenteroloog, UZ Leuven, België

10.15 Pathologie: pitfalls
Drs. M.E.I. Schipper, patholoog, Erasmus MC, Rotterdam

10.30 Psychosociale zorg: lessen uit de kindergeneeskunde
Prof. dr. J.C. Escher, kinderarts-MDL, Sophia Kinderziekenhuis, Rotterdam

10.45 Chirurgie: standard of care
Prof. dr. W.A. Bemelman, chirurg, Academisch Medisch Centrum, Amsterdam

11.00 Afsluiting door C.J. van der Woude

11.00 Koffie en thee in de expositiehal

Vrije voordrachten Sectie Inflammatoire Darmziekten — Baroniezaal

Voorzitters: I.A.M. Gisbertz en D. Leemreis-van Noord

Voordrachten in het Nederlands, spreektijd 7 minuten, discussietijd 3 minuten

11.30 Algemene Ledenvergadering Sectie Inflammatoire Darmziekten

11.40 Chronic anaemia due to gastrointestinal bleeding, when do gastroenterologists transfuse? A nationwide survey in The Netherlands (p. 109)
K.V. Grooteman, E.J.M. van Geenen, J.P.H. Drenth, Radboud University Medical Center, Nijmegen, The Netherlands

11.50 Quality of life in coeliac disease: do patients and doctors agree? (p. 110)

S.L. Vriezinga[1], M.W. Schaart[1], N. Farih[1], A.E. van der Meulen-de Jong[2], H. Putter[3], E.H.H.M. Rings[1,4], J.J. Schweizer[1], M.M.S. Wessels[1], M.L. Mearin[1], [1]Dept. of Pediatrics, [2]Dept. of Gastroenterology and Hepatology and [3]Dept. of Medical Statistics, Leiden University Medical Center, Leiden, [4]Dept. of Pediatrics, Sophia Children's Hospital, Erasmus Medical Center, Rotterdam, The Netherlands

12.00 Illness perceptions, mediated by coping, impact on quality of life, activity and work impairment in patients with IBD (p. 111)

S.J.H. van Erp[1], L.K.P.M Brakenhoff[1], M. Vollmann[2,3], M. Scharloo[4], D. van der Heijde[5], R.A. Veenendaal[1], A.A. Kaptein[4], H.H. Fidder[6], D.W. Hommes[1,7], A.E. van der Meulen-de Jong[1], [1]Dept. of Gastroenterology and Hepatology, Leiden University Medical Center, Leiden, The Netherlands, [2]Dept. of Health Psychology, University of Hagen, Hagen, Germany, [3]Dept. of Clinical and Health Psychology, University of Utrecht, Utrecht, The Netherlands, [4]Dept. of Medical Psychology, Leiden University Medical Center, Leiden, The Netherlands, [5]Dept. of Rheumatology, Leiden University Medical Center, Leiden, The Netherlands, [6]Dept. of Gastroenterology and Hepatology, University Medical Center Utrecht, Utrecht, The Netherlands, [7]Center for Inflammatory Bowel Diseases, UCLA Health System, Los Angeles, USA

12.10 Brain involvement in quiescent Crohn's disease patients with fatigue – a pilot study (p. 112)

S.J.H. van Erp[1], E.A. Ercan[2], P. Breedveld[2], L.K.P.M. Brakenhoff[1], E. Ghariq[2], S. Schmid[2], M.J.P van Osch[2], M.A. van Buchem[3], B.J. Emmer[3], J. van der Grond[3], R. Wolterbeek[4], D.W. Hommes[1,5], H.H. Fidder[6], N.J.A van der Wee[7], T.W.J. Huizinga[8], D. van der Heijde[8], H.A.M Middelkoop[9], I. Ronen[2], A.E. van der Meulen-de Jong[1], [1]Dept. of Gastroenterology and Hepatology, [2]C.J. Gorter Center, [3]Dept. of Radiology, [4]Dept. of Medical Statistics, Leiden University Medical Center, Leiden, The Netherlands, [5]Center for Inflammatory Bowel Diseases, UCLA Health System, Los Angeles, USA, [6]Dept. of Gastroenterology & Hepatology, University Medical Center Utrecht, Utrecht, The Netherlands, [7]Dept. of Psychology, [8]Dept. of Rheumatology, [9]Dept. of Neuropsychology, Leiden University Medical Center, Leiden, The Netherlands

12.20 Multiplex serum analysis in newly diagnosed and still untreated Crohn's Disease patients (p. 113)

C. Smids[1], C.S. Horjus Talabur Horje[1], S. Nierkens[2], M.J. Groenen[1], P.J. Wahab[1], E.G. van Lochem[3], [1]Dept. of Gastroenterology and Hepatology, Rijnstate Hospital, Arnhem, [2]U-DAIR and Laboratory of Translational Immunology, University Medical Center Utrecht, Utrecht, [3]Dept. of Microbiology and Immunology, Rijnstate Hospital, Arnhem, The Netherlands

12.30 Clinical consequences for white blood cell monitoring in IBD patients with a normal TPMT genotype (p. 114)

M.M.T.J. Broekman[1], M.J. Coenen[2], C.J. van Marrewijk[2], G.J.A. Wanten[1], L.J. Derijks[3], S.H. Vermeulen[2,4], D.R. Wong[5], O.H. Klungel[6], A.L. Verbeek[4], P.M. Hooymans[5], H. Scheffer[2], H.J. Guchelaar[7], B. Franke[2,8], D.J. de Jong[1], [1]Dept. of Gastroenterology, Radboud University Medical Center, Nijmegen, [2]Dept. of Human Genetics, Radboud University Medical Center, Nijmegen, [3]Dept of Clinical Pharmacy, Máxima Medical Center, Veldhoven, [4]Dept. for Health Evidence, Radboud University Medical Center, Nijmegen, [5]Dept. of Clinical Pharmacy and Toxicology, Orbis Medical Center, Sittard-Geleen, [6]Dept. of Pharmacoepidemiology and Pharmacotherapy, Utrecht University, Utrecht, [7]Dept. of Clinical Pharmacy and Toxicology, Leiden University Medical Center, Leiden, [8]Dept of Psychiatry, Radboud University Medical Center, Nijmegen.

12.40 Colorectal cancer risk in patients with both Lynch syndrome and inflammatory bowel disease (p.115)

L.A.A.P. Derikx[1], L.J.T. Smits[1], N.E. Dekker[2], C.M. Aalfs[3], F.M. Nagengast[1], I.D. Nagtegaal[4], N. Hoogerbrugge[5], F. Hoentjen[1], [1]Inflammatory Bowel Disease Center, Dept. of Gastroenterology and Hepatology, Radboud University Medical Center, Nijmegen, [2]Dept. of Gastroenterology and Hepatology, Academic Medical Center, Amsterdam, [3]Dept. of Human Genetics, Academic Medical Center, Amsterdam, [4]Dept. of Pathology, Radboud University Medical Center, Nijmegen, [5]Dept. of Human Genetics, Radboud University Medical Center, Nijmegen, The Netherlands

12.50 Reduction of anti-infliximab antibody formation in paediatric Crohn's patients on concomitant immunomodulators (p. 116)

H.M. Kansen[1], P.F. van Rheenen[2], R.H.J. Houwen[1], W. Tjon A Ten[3], G.M. Damen[4], A. Kindermann[5], J.C. Escher[6], V.M. Wolters[1], [1]Dept. of Pediatric Gastroenterology, University Medical Center - Wilhelmina Children's Hospital, Utrecht, [2]Dept. of Pediatric Gastroenterology, University Medical Center Groningen-Beatrix Children's Hospital, Groningen, [3]Dept. of Pediatric Gastroenterology, Maxima Medical Center, Veldhoven, [4]Dept. of Pediatric Gastroenterology, Radboud University Medical Center-Amalia Children's Hospital, Nijmegen, [5]Dept. of Pediatric Gastroenterology, AMC Medical Center-Emma Children´s Hospital, Amsterdam, [6]Dept. of Pediatric Gastroenterology, Erasmus Medical Center-Sophia Children's Hospital, Rotterdam, The Netherlands

13.00 Rectal enema of MSC spheroids alleviates experimental colitis (p. 117)

I. Molendijk[1], M.C. Barnhoorn[1], E.S.M. de Jonge-Muller[1], M.A.C. Mieremet-Ooms[1], J.J. van der Reijden[1], D. van der Helm[1], D.W. Hommes[1,2], A.E. van der Meulen-de Jong[1], H.W. Verspaget[1], [1]Dept. of Gastroenterology and Hepatology, Leiden University Medical Center, Leiden, The Netherlands, [2]Division of Digestive Diseases, University of California Los Angeles, Los Angeles, USA

13.00 Lunch in expositiehal

Vrije voordrachten Nederlandse Vereniging voor Gastroenterologie — Parkzaal

Voorzitters: J.Ph. Kuijvenhoven en W.H. de Vos tot Nederveen Cappel

Voordrachten in het Nederlands, spreektijd 7 minuten, discussietijd 3 minuten

09.30 Clinical and endoscopic predictors of neoplastic progression for risk- stratification in Barrett's oesophagus surveillance: a multi-centre community based prospective cohort study (p. 118)

A. Bureo Gonzalez[1,9], L.C. Duits[1,9], R. Mallant-Hent[1, 2,9], B. Elzer[1], H. Verhulst[1,] W. Curvers[3,9], L.C. Baak[4,9], C.J.M. Böhmer[5,9], A.H.A.M. van Oijen[6,9], A.H.J. Naber[7,9], P. Scholten[8,9], F.J.W. ten Kate[10,11], G.A. Meijer[12], C.A. Seldenrijk[13], G.J. Offerhaus[10,11], M. Visser[10], S.L. Meijer[10], J.J.G.H.M. Bergman[1,9], R.E. Pouw[1,9], On behalf of the ReBus Study Group, [1]Dept. of Gastroenterology and Hepatology, Academic Medical Center, Amsterdam, [2]Dept. of Gastroenterology and Hepatology, Flevohospital, Almere, [3]Dept. of Gastroenterology and Hepathology, Catherina Hospital, Eindhoven, [4]Dept. of Gastroenterology and Hepatology, Onze Lieve Vrouwe Gasthuis, Amsterdam, [5]Dept. of Gastroenterology and Hepatology, Spaarne Hospital, Hoofddorp, [6]Dept. of Gastroenterology and Hepatology, Medical Center Alkmaar, Alkmaar, [7]Dept. of Internal Medicine, Tergooi Hospitals, Hilversum, [8]Dept. of Gastroenterology and Hepatology, St Lucas Andreas Hospital, Amsterdam, [9]Amsterdam Gastroenterological Association, Amsterdam, [10]Dept. of Pathology, Academic Medical Centre, Amsterdam, [11]Dept. of Pathology, University Medical Centre, Utrecht, [12]Dept. of Pathology, VU University Medical Centre, Amsterdam, [13]Dept. of Pathology, St Antonius Hospital, Nieuwegein, The Netherlands

09.40 The surgical outcome of one-year colorectal cancer screening in a single centre academic hospital: much surgery for benign lesions (p. 119)

N.C.A. Vermeer[1], F.A. Holman[2], A. Gerritsen van der Hoop[3], G.J. Liefers[2], K.C.M.J. Peeters[2], [1]Dept. of Surgery, Groene Hart Hospital, [2]Dept. of Surgery, Leiden Universitary Medical Centre, [3]Dept. of Surgery, Keizer Kliniek, The Netherlands

09.50 Comparison of OC-sensor and FOB-Gold in population based colorectal cancer screening based on FIT (p. 120)

E.J. Grobbee[1], M. van der Vlugt[2], A.J. van Vuuren[1], A.K. Stroobants[3], P. Didden[1], M.W. Mundt[4], P.M.M. Bossuyt[5], I. Lansdorp-Vogelaar[6], E.J. Kuipers[1], M.C.W. Spaander[1], E. Dekker[2], [1]Dept. of Gastroenterology and Hepatology, Erasmus University Medical Center, Rotterdam, [2]Dept. of Gastroenterology and Hepatology, Academic Medical Centre Amsterdam, Amsterdam, [3]Dept. of Clinical Chemistry, Academic Medical Center Amsterdam, Amsterdam, [4]Dept. of Gastroenterology and Hepatology, Flevoziekenhuis, Amsterdam, [5]Dept. of Clinical Epidemiology, Biostatistics and Bioinformatics, Academic Medical Center, University of Amsterdam, [6]Dept. of Public Health, Erasmus University Medical Center, Rotterdam, The Netherlands

10.00 Diagnostic risk factors for colorectal cancer in patients with serrated polyposis syndrome: a multicentre cohort study (p. 121)

J.E.G. IJspeert[1], S.A.Q. Rana[2], N.S.S. Atkinson[3], Y.J. van Herwaarden[4], T.M. Bisseling[4], B.A.J. Bastiaansen[1], J.E. East[3], A. Latchford[2], E. Dekker[1], Dutch workgroup serrated polyps & polyposis,
[1]Academic Medical Center, Amsterdam, The Netherlands, [2]St Mark's Hospital, London, United Kingdom, [3]Translational Gastroenterology Unit, Oxford, United Kingdom, [4]Radboud University Medical Center, Nijmegen, The Netherlands

10.10 Prospective, quantitative assessment of pain reduction and quality of life improvement following vascular intervention in chronic mesenteric ischemia; a pilot study (p. 122)

L. Everlo[1], P. Mensink[1], M. Brusse-Keizer[2], B. Geelkerken[3], E. Stassen[4], J. Kolkman[1,5], [1]Dept. of Gastroenterology, Medisch Spectrum Twente, Enschede, [2]Medical School Twente, Medisch Spectrum Twente, Enschede, [3]Dept. of Vascular Surgery, Medisch Spectrum Twente, Enschede, [4]Dept. of Interventional Radiology, Medisch Spectrum Twente, Enschede, [5]Dept. of Gastroenterology, University Medical Centre Groningen, Groningen, The Netherlands

10.20 Preoperative episodic abdominal pain characteristics are not associated with clinically relevant improvement of health status after cholecystectomy (p. 123)

M.P. Lamberts[1, 2, 3], W. Kievit[4], J.J.G.M. Gerritsen[5], J.A. Roukema[6], G.P. Westert[1], J.P.H. Drenth[2], C.J.H.M. van Laarhoven[3], [1]Scientific Institute for Quality of Healthcare (IQ healthcare), [2]Dept. of Gastroenterology and Hepatology, [3]Dept of Surgery and 4Dept. for Health Evidence, Radboud University Medical Centre, Nijmegen, [5]Dept. of Surgery, Medisch Spectrum Twente, Enschede, [6]Dept. of Surgery, St. Elisabeth Hospital, Tilburg, The Netherlands

10.30 **State of the Art Lecture**

ACNES

Dr. R.M.H. Roumen, chirurg, Máxima Medisch Centrum, Veldhoven

11.00 Koffie en thee in de expositiehal

Vrije voordrachten Nederlandse Vereniging voor Gastroenterologie — Parkzaal

Voorzitters: C.H.C. Dejong en G.J.A. Wanten

Voordrachten in het Nederlands, spreektijd 7 minuten, discussietijd 3 minuten

11.30 A comparison of IBS patients according to healthcare setting (p. 124)

Z. Weerts[1], L. Vork[1], Z. Mujagic[1], J. Muris[2], D. Keszthelyi[1], D. Jonkers[1], A. Masclee[1], [1]Dept. of Gastroenterology and Hepatology, [2]Dept. of Family Medicine, Maastricht University Medical Center, Maastricht, The Netherlands

11.40 Food intake in IBS patients versus healthy controls: a case-control study (p. 125)

E.F. Tigchelaar[1,2], Z. Mujagic[1,3], A. Zhernakova[1,2], S. Meyboom[4,] C.W.M. Perenboom[4], C. Wijmenga[1,2], A.A.M. Masclee[1,3], E.J.M. Feskens[1,4], D.M.A.E. Jonkers[1,3], [1]Top Institute Food and Nutrition (TIFN), Wageningen, [2]Dept. of Genetics, University of Groningen, University Medical Centre Groningen, Groningen, [3]Division of Gastroenterology and Hepatology, Dept. of Internal Medicine, NUTRIM School for Nutrition, and Translational Research in Metabolism, Maastricht University Medical Center, Maastricht, [4]Division of Human Nutrition, Section Nutrition and Epidemiology, Wageningen University, Wageningen, The Netherlands

11.50 Developing a Patient Reported Outcome Measure for symptom assessment in Irritable Bowel Syndrome by Experience Sampling Method: outcome of focus groups (p. 126)

L. Vork[1], D. Keszthelyi[1], Z. Mujagic[1], D. Jonkers[1], J. van Os[2], C. Leue[2], J. Kruimel[1], A. Masclee[1], [1]Dept. of Gastroenterology and Hepatology, [2]Dept. of Psychiatry and Medical Psychology, Maastricht University Medical Center, Maastricht, The Netherlands

12.00 Retrograde rectal cleansing is a moderate effective long-term treatment in patients with constipation or fecal incontinence (p. 127)

Vollebregt P.F.[1], Elfrink A.K.E.[2], Meijerink W.J.H.J.[2] and Felt-Bersma R.J.F.[1], [1]Dept. of Gastroenterology and Hepatology and [2]Dept. of Surgery, VU Medical Center Amsterdam, The Netherlands

12.10 Diagnosis and management of eosinophilic esophagitis: a 13-year retrospective review in a pediatric population in The Netherlands (p. 128)

D.M. Hendriks[1], A. van den Berg[1], H.de Groot[2], V.M.Wolters[3], T.G.J. de Meij[4], J.M. Hulst[5], B.G.P. Koot[6], P.F. van Rheenen[7], G.M. Damen[8], M. Groeneweg[9], J.M. Stapelbroek[10], E.K. George[11], S.T.A. Tecklenburg[12], C. van der Feen[13], T.Z. Hummel[14], J.H. Oudshoorn[15], [1]Dept. of Pediatric Gastro-enterology, Juliana Children's Hospital/Haga Hospital, Den Haag, [2]Dept. of Allergology/ Pediatrics, Reinier de Graaf Groep, Delft, [3]Dept. of Pediatric Gastroenterology, Wilhelmina Children's Hospital, University Medical Center Utrecht, Utrecht, [4]Dept. of Pediatric Gastroenterology, VU Medical Center, Amsterdam, [5]Dept. of Pediatric Gastroenterology, Erasmus MC/Sophia, Rotterdam, [6]Dept. of Pediatric Gastroenterology, Emma Children's Hospital, Academic Medical Center, Amsterdam, [7]Dept. of Pediatric Gastroenterology, University Medical Center Groningen, Groningen, [8]Dept. of Pediatric Gastroenterology, University Medical Center Nijmegen, [9]Dept. of Pediatrics, Maasstad Hospital, Rotterdam, [10]Dept. of Pediatrics, Catharina Hospital, Eindhoven, [11]Dept. of Pediatrics, Medical Center Alkmaar, Alkmaar, [12]Dept. of Pediatrics, Isala Klinieken, Zwolle, [13]Dept. of Pediatrics, Jeroen Bosch Hospital, 's-Hertogenbosch, [14]Dept. of Pediatrics, Medisch Spectrum Twente, Enschede, [15]Dept. of Pediatrics, Gelre Hospitals, Apeldoorn, The Netherlands

12.20 Effects of gut microbiota manipulation by antibiotics on plasma amino acid levels in obese subjects (p. 129)

E.P.J.G. Neis[1,2,4], D. Reijnders[2,3,4], G.H. Goossens[2,3,4], E.E. Blaak[2,3,4], C.H.C. Dejong[1,2,4], S.S. Rensen[1,2], [1]Dept. of General Surgery, Maastricht University Medical Center, Maastricht, [2]NUTRIM School for Nutrition and Translational Research in Metabolism, Maastricht University, Maastricht, [3]Dept. of Human Biology, Maastricht University, Maastricht, [4]Top Institute Food and Nutrition, Wageningen, The Netherlands

12.30 Starting enteral nutrition at target rate is more efficient than a supervised nutrition protocol in increasing nutritional adequacy in critically ill patients (p. 130)

D.M.P.H. Miseré, D.C.J.J. Bergmans, M.C.G. van de Poll, Maastricht University Medical Center, Maastricht, The Netherlands

12.40 Perioperative intravenous glutamine supplementation restores the disturbed arginine synthesis after open repair of an abdominal aortic aneurysm, a randomized clinical trial (p. 131)

S.J.H. Brinkmann[1], N. Buijs[1], M.A.R. Vermeulen[2], E. Oosterink[4], H. Schierbeek[4], A. Beishuizen[5], J.P.P.M. de Vries[3], W. Wisselink[1], P.A.M. van Leeuwen[1], [1]Dept. of Surgery and [2]Dept. of Internal Medicine (MARV), Intensive Care (AB), VU University Medical Center, Amsterdam, [3]Dept. of Vascular Surgery, St. Antonius Hospital, Nieuwegein, [4]Dept. of Pediatrics, Academic Medical Center, Emma Children's Hospital, Amsterdam, [5]Dept. of Intensive Care, Medisch Spectrum Twente, Enschede, The Netherlands

12.50 Pediatric SBS in The Netherlands: a 25 year review (p. 132)

G.I. Koffeman[1], E.G. Neelis[2], J. Schimmer[1], M. Schurink[3], M.N. van Kassel[1], E. van Heurn[1], M.M. Tabbers[1], I. de Blaauw[3], D. van der Zee[4], A.F. Versteeg[1], E.H.H. Rings[2], W.G. van Gemert[5], R. Wijnen[2], Chr. Sleeboom[1], J.B.F. Hulscher[6], [1]KCA Amsterdam, [2]SKZ Rotterdam, [3]Radboud UMC, Nijmegen, [4]WKZ Utrecht, Utrecht, [5]Maastricht University Medical Center, Maastricht, [6]University Medical Center Groningen, Groningen, The Netherlands

13.00 Lunch in expositiehal

Vrijdag 9 oktober 2015

Meet the Expert **Zaal 82**

Meet the expert sessie ERCP*

Dr. J.W. Poley, MDL-arts, Erasmus MC, Rotterdam
Drs. L.E. Perk, MDL-arts, MC Haaglanden, Den Haag

groep 1: 11.30 – 12.15 uur
groep 2: 12.15 – 13.00 uur

Meet the Expert **Zaal 83**

Meet the expert sessie Proctologie*

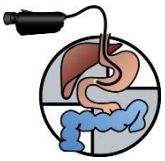
Dr. G. den Hartog, MDL-arts, Rijnstate Ziekenhuis, Arnhem
Dr. D.D.E. Zimmerman, chirurg, TweeSteden Ziekenhuis,Tilburg

groep 1: 11.30 – 12.15 uur
groep 2: 12.15 – 13.00 uur

** vanwege de grote belangstelling zijn deze sessies alleen toegankelijk voor deelnemers die zich hiervoor tevoren hebben ingeschreven*

Programma V&VN MDL **Brabantzaal**

Beroepsvereniging van zorgprofessionals
Maag Darm Lever



Voorzitter: Thea Korpershoek

09.30 Opening voorzitter

09.40 EUS: indicaties, complicaties en nieuwe ontwikkelingen
Dr. R.C.H. Scheffer, MDL-arts, Jeroen Bosch Ziekenhuis, Den Bosch

10.10 Complicaties op MDL-gebied na bariatrische chirurgie
Dr. M.J.M. Groenen, MDL-arts, Rijnstate Ziekenhuis, Arnhem

10.35 Levercirrose: diagnostiek, complicaties, medicatie en endoscopie
Drs. K. van Hee, aios MDL, Radboudumc, Nijmegen

11.00 Koffiepauze

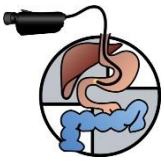
11.30 Levercirrose, ook jouw zorg? De verpleegkundige rol
Mw. Th. Korpershoek, verpleegkundig specialist, Albert Schweitzer Ziekenhuis, Dordrecht

11.45 Achalasie: diagnostiek, interventies en nieuwe ontwikkelingen
Dr. A.J. Bredenoord, MDL-arts, Academisch Medisch Centrum, Amsterdam

12.15 Inflammatory Bowel Disease en Kwaliteit van Leven
Dr. B. Jharap, MDL-arts, Meander MC, Amersfoort

13.00 Lunchbuffet in de Kempenhal

Middagprogramma Endoscopieverpleegkundigen — Brabantzaal



Voorzitter: Wilma Kok en Mandy van Hout

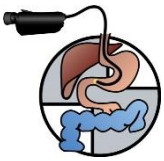
14.00 Stand van zaken bevolkingsonderzoek en capaciteitsplanning hierbij
Dr. M.A.M.T. Verhagen, MDL-arts, Diakonessenhuis, Utrecht

14.30 ERBE en APC
Drs. G.D.N. Heine, MDL-arts, Medisch Centrum Alkmaar

15.00 Poliepectomie, histologie en surveillance
Dr. J.S. Terhaar sive Droste, MDL-arts, Jeroen Bosch Ziekenhuis, Den Bosch

15.40 Afsluiting, einde programma

Middagprogramma IBD / Lever verpleegkundigen — Zaal 55



Voorzitter: Angelie de Heer

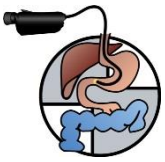
13.45 Nieuwe biologicals voor IBD; wat is het immunologische werkingsmechanisme?
Drs. J. Potjewijd, immunologe, Universitair Medisch Centrum Maastricht

14.10 CBO Richtlijn IBD Volwassenen 2015
Dr. F. Hoentjen, MDL-arts, Radboudumc, Nijmegen

14.40 De nieuwe Nederlandse HCV richtlijn: Een evoluerend, praktisch instrument
Dr. R.J. de Knegt, MDL-arts, Erasmus MC, Rotterdam

Middagprogramma IBD / Lever verpleegkundigen (vervolg) **Zaal 55**

Beroepsvereniging van zorgprofessionals
Maag Darm Lever



15.10 Fibroscan: niet-invasieve methode voor het vaststellen van de mate van fibrose en/of cirrose. Meerwaarde in de dagelijkse praktijk?
Mw. A. Hulsegge, verpleegkundig specialist i.o., Medisch Spectrum Twente, Enschede

15.40 Afsluiting, einde programma

ABSTRACTS

First results of endoscopic submucosal dissection for non-pedunculated colorectal polyps in The Netherlands

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Endoscopic resection of T1 colorectal carcinoma (CRC) needs to be en-bloc for proper histopathological evaluation and to lower the risk of residual disease. Endoscopic submucosal dissection (ESD) results in high en-bloc resection rates and low recurrence rates in Asian studies, but is not widely available in Europe. The aim of this study was to report the first experiences with colorectal ESD in the Netherlands. Data of 26 cases of colorectal ESDs carried out for non-pedunculated polyps with features of early malignancy and/or LST-NG ≥ 2 cm in our center between October 2013 and May 2015 were prospectively registered. All procedures were done by two experienced endoscopists, with prior training in a porcine model and in vivo training abroad. In 14 patients the polyp was resected with the classic ESD technique and in 12 patients ESD-assisted EMR was performed. In total, 12, 5, 4, 3 and 2 polyps were located in rectum, sigmoid, rectum- sigmoid, descending colon and transverse colon respectively. Median size was 3.0 cm (IQR 2.1-4.3 cm). Paris classification was I-s, II-a, II-b, and II a-c in 6,14,1 and 5 polyps respectively. Histopathology revealed 20 adenomas (9 LGD; 11 HGD), 5 T1 CRCs and 1 carcinoid. Median procedural time was 139 minutes (IQR 106-225). In patients that underwent classic ESD, en-bloc resection was achieved in all but one patient (92.9%). R0-resection was achieved in 10 patients (71.4%), in 2 patients margins were unable to determine, and in 2 patients the vertical margins were positive. In patients that underwent ESD-assisted EMR, ESD was combined with en-bloc EMR in 3 patients (25%), all of them R0-resections. In 9 patients (75%) ESD was combined with piecemeal EMR, in 8 of them the margins could not be judged and in 1 patient the vertical margin was positive. Two intraprocedural perforations occurred (7.7%) which could be managed with clip placement, both of them during ESD-assisted EMR. In 1 patient repeat colonoscopy was performed because of delayed bleeding (3.8%) and 1 patient was referred for surgery after procedure because of a perforation (3.8%), both after ESD-assisted EMR. 6 patients developed fever without focal symptoms (23%). 3 patients (11.5%) had a pain VAS score ≥4 after the procedure, at discharge all VAS scores were 0. Median duration of hospitalization was 1 night (IQR 1-2). Follow-up endoscopy was performed in 14 patients (53.8%) after a median duration of 5.5 months, showing residual disease in 1 patient after piecemeal ESD (7.1%).

Conclusion: This single center study reports the first outcomes of colorectal ESD in the Netherlands and shows that safety and efficacy of classic ESD approaches results of Asian studies.

Safety and feasibility of endoscopic resection of giant non-pedunculated colorectal polyps

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Although recent reports show that endoscopic resection of large polyps (>2 cm) is safe and feasible, more than 30% of polyps with high grade dysplasia (HGD) are referred for surgery in the Netherlands. These consisted mainly of very large polyps (> 3 cm) located in the proximal colon. The aim of this study was to compare outcomes of large (20-40 mm) and giant (≥40 mm) non-pedunculated colorectal polyps with regard to endoscopic resection success rate (defined as macroscopic complete resection), complication rate, as well as need for surgery for benign polyps. Patients with at least one non-pedunculated polyp ≥ 20 mm suitable for endoscopic resection in our center between March 2012 and May 2015 were prospectively registered. A total of 116 patients with 133 polyps were included; 101 large polyps (median size 25 mm, range 20-35 mm) and 32 giant polyps (median size 50 mm, range 40-120 mm). Histology revealed 93 adenomas (63 LGD, 30 HGD), 23 serrated adenomas (9 LGD, 4 HGD, 10 no dysplasia), and 17 adenocarcinomas; rate of malignancy did not significantly differ between both groups (p=0.58). 79 polyps (59.4%) were located in the proximal colon versus 54 (40.6%) in the distal colon, with significantly more large polyps located in the proximal colon (p<0.05). 13 polyps were removed with ESD (9.8%), 11 with ESD-assisted EMR (8.3%), and 109 with EMR (82%), with relatively more ESD and ESD-assisted EMR resections in giant polyps (28.1% versus 14.9%, p=0.09). En-bloc resection was achieved in 28 polyps (21.2%), relatively more often in large polyps (24.8% versus 9.4%, p=0.08). Successful endoscopic resection was achieved in 127 polyps (95.5%); in 98.0% of large polyps versus 87.5% of giant polyps, p=0.01. Overall complication rate was 9.8%; 8.9% in large polyps versus 12.5% in giant polyps, p=0.51. Complications consisted of perforation (n=5), delayed bleeding (n=5), and postpolypectomy syndrome (n=3). Perforations were managed conservatively (n=3) or suturing by laparoscopic surgery (n=2). Of the 116 benign polyps (89 large polyps and 26 giant polyps), 3 were referred for surgery for polyp removal (2.6%); 1 large polyp versus 2 giant polyps, p=0.14. Follow-up colonoscopy was performed for 52 large polyps and 13 giant polyps after a median duration of 6.2 months. Residual disease was found in 9 polyps (13.8%); in 11.5% of large polyps versus 23.1% of giant polyps, p=0.37.
Conclusion: Successful endoscopic resection was achieved in almost 90% of giant (> 4 cm) colorectal polyps, with an acceptable complication risk which is comparable to endoscopic resection of 2-4 cm polyps.

ESD-TEM: a new technique for large rectal adenomas combining endoscopic submucosal dissection and TEM with the hydrojet

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Transanal Endoscopic Microsurgery (TEM) is a well- established technique for the removal of large rectal adenomas. It is complementary to EMR and ESD, with the difference that it is mostly a one stage procedure. Both TEM and ESD allow for a radical resection with clear resection margins. A disadvantage for ESD is that not many gastroenterologists perform the procedure, furthermore it takes a long time, and a disadvantage for TEM that often a full-thickness resection is required. In our tertiary referral centre for TEM we started performing a combination of ESD and TEM in June 2014, where, aided by the hydrojet, the submucosa was lifted with indigocarmine-stained saline, which allowed us to perform radical resections leaving the muscular layer intact in all cases. Advantages are: an increase in the distance between the mucosa and the muscularis propria, a better delivery of diathermia becauseof the increased conduction of electrical current due to the infusion of saline, and a better definition of the margins of the adenoma because of the indigocarmine blue staining. A further advantage is that through the 3D optic with 3 working ports an excellent vision is established and tension can be created on the tissue, facilitating an easier resection and a swift control of bleeding. All patients were prospectively followed and included in a larger TEM database. Apart from presenting the results a video of the procedure will be shown. Results: From June 2014 until May 2015 20 patients were treated with the ESD-TEM technique (out of a total of 55 TEM patients). All patients had been referred by gastroenterologists who deemed the lesions not fit for regular endoscopic removal, EMR or ESD. Mean duration of admission was 2 days (1-3); mean operating time was 71 minutes (20-150). In 8 patients a clear resection margin on a pathology specimen could not be confirmed, although there had been no macroscopic residues, they all had a sigmoidoscopy on 4 and 8 months after the operation, and no recurrent adenomatous tissue could be found. As in regular TEM, temporary minor incontinence lasted for a mean of 1 week (0-2), there was one minor complication (rectal bleeding on day 1, without significant loss of Hb, which resolved spontaneously) and there were no major complications.
In conclusion: ESD TEM is a promising new technique that may be suitable for large rectal adenomas from 0-15 cm from the anorectal verge, complimentary to the standard endoscopic treatments. Longer follow-up is required.

MRI versus endoscopy to determine the distance between rectal cancer and the anal verge

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Endoscopy is the preferred diagnostic method for rectal cancer. In the preoperative work-up of patients with rectal cancer, MRI is performed for T and N staging of the tumor. In addition, accurate assessment of the distance between the anorectal junction and the distal end of the tumor (referred to as tumor height) is important, since preoperative and surgical treatment as well as treatment outcome differ between lower and higher rectal tumors with lower rectal tumors being associated with a higher local recurrence rate and worse survival. Tumor height can be determined by colonoscopy or MRI. It is well-known that in clinical practice, these measurements frequently are different, leading to alternative treatment strategies. The aim of this study was to analyze the variability of endoscopy and MRI in determining rectal tumor height. Data of all patients diagnosed with rectal cancer at our hospital over the last 10 years were extracted from the Dutch Comprehensive Cancer Center (IKNL). All patients with available MRI data and endoscopy reports on exact tumor location were included. The MRI was re-evaluated for tumor height by two expert radiologists, blinded for the endoscopy results. Tumor location was classified as low (0-5cm), middle (5.1-10cm), or high (10.1-15cm) from the anorectal junction. Between 1-1-2002 and 31-12-2012, a total of 523 patients with rectal cancer was identified. Of these, 214 patients with both MRI and adequate endoscopy reports including exact tumor height were included for analysis. The mean tumor height measured by endoscopy was 6.53cm (SD 4.41cm, range 0-15cm), compared with 4.08cm (SD 4.30cm, range 0-15cm) measured by MRI ($p<0.05$). Mean difference between MRI and endoscopy was 2.45cm (±SD 2.98cm); however, the correlation between tumor height measured by MR and endoscopy was poor (Intraclass Correlation Coefficient 0.591 (95%CI: 0.171-0.779)). Tumors were classified as low in 63.1 and 43.9%, middle in 32.2 and 37.9%, and high in 4.7 and 18.2% for MRI and endoscopy, respectively ($p<0.05$). In 19.2% of patients, rectal tumors were diagnosed as low by MRI and middle-high by endoscopy.
In conclusion, this study shows that MRI and endoscopy vary considerably in determining tumor height in rectal cancer. A significant proportion of rectal tumors are endoscopically classified as middle-high instead of low according to MRI. This may lead to an alternative and less effective treatment strategy in some patients, although the golden standard for tumor height remains to be determined.

Risk factors for incomplete endoscopic resection of T1colorectal cancer

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The need for additional treatment after endoscopic resection of T1 colorectal cancer (CRC) depends on the risk of lymph node metastasis and the risk of incomplete resection. The aim of this study was to determine risk factors for incomplete endoscopic resection of T1 CRC. Patients who underwent endoscopic resection for T1 CRC and at least 1 follow-up colonoscopy from 2000 to 2012 in 1 academic and 9 nonacademic hospitals were selected from the Netherlands Cancer Registry. Patient and treatment characteristics, histology and data on follow-up were collected from the electronic medical records. Incomplete resection was defined as malignant tissue in the surgically resected specimen in case of surgery after endoscopic resection (group A) or at the polypectomy site during follow-up (group B). Logistic regression analysis was used to analyze risk factors. A total of 448 patients were included; 44 patients with incomplete resection (A=34, B=10) and 404 patients with complete resection. 238 patients were treated with endoscopic resection only (53.1%) and 210 patients underwent additional surgery (46.9%). Median size of the polyps was 20 mm (IQR 13-25 mm). En-bloc resection was performed in 327 polyps (73.0%). 29 polyps were located in the proximal colon (6.5%). Median follow-up in the endoscopy only group was 45 months (IQR 28-81); follow-up time and number of follow-up colonoscopies did not significantly differ between incomplete and complete resections (p=0.63 and p=0.66 respectively). Incomplete resection was observed in 31/179 non-pedunculated polyps (17.3%) and in 13/269 pedunculated polyps (4.8%). Univariate logistic regression analysis showed that polyp size ≥ 2.5 cm (OR 2.14, 95% CI 1.11-4.10, p=0.02), proximal location (OR 4.03, 95% CI 1.67-9.75; p=0.002), non-pedunculated morphology (OR 4.13, 95% CI 2.09-8.13; p<0.001), EMR versus snare resection (OR 2.37, 95% CI 1.06-5.29; p=0.04), and piecemeal resection (OR 6.26, 95% CI 3.24-12.09; p<0.001) were risk factors for incomplete resection. Multivariate analysis adjusted for these factors showed that piecemeal resection (OR 6.57, 95% CI 2.91-14.86; p<0.001) and non-pedunculated morphology (OR 2.76, 95% CI 1.27-5.97; p=0.01) were the only independent risk factors.
Conclusion: Piecemeal resection and non-pedunculated morphology are independent risk factors for incomplete endoscopic resection of T1 CRC.

Antibiotic gazes are equally effective as intravenous antibiotics in preventing infections after Percutaneous Endoscopic Gastrostomy (PEG) placement. Results of Percutaneous Endoscopic Gastrostomy insertion; a single-center retrospective study

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The most common complication after Percutaneous Endoscopic Gastrostomy (PEG) placement is peristomal wound infection (24% without antibiotic prophylaxis). Single dose parenteral prophylactic antibiotics as advised by current guidelines decreases infection rate to 10-15%. We assume a prolonged and focused effect of local antibiotic treatment with bactericide gazes. These are also more patient friendly and pragmatic in use. This study is the first describing the effect of bactericide gazes in preventing infections in PEG, without other antibiotics. Retrospective data analysis was performed of all patients with PEG insertion between January 2009 and October 2014, including the first 2 weeks after PEG placement. All patients received a locally applied bactericide gaze (Polyhexamethylene Biguanide; PHMB) immediately following PEG insertion for three days. No other antibiotics were given. Usual wound care was performed. Main outcomes were wound infection, peritonitis and necrotizing fasciitis, secondary outcomes were other complications. 381 patients underwent PEG insertion. After exclusion of 50 patients with parenteral antibiotics, 331 patients with only bactericide gazes were analyzed. The total number of infections two weeks after PEG insertion was 9.4%, including 8.2% minor and 1.2% major infections (peritonitis). A bleeding rate of 2.1% was found, buried bumper occurred at 0.9% and a procedure related mortality rate of 0.9% was found (by aspiration pneumonia). No other major complications were seen.
Conclusions: these results accord with previous literature on parenteral antibiotic prophylaxis. Bactericide PHMB gazes seem at least equally effective in preventing infections and are five times less expensive, more patient friendly and more practical in use. No bacterial resistance for bactericide PHMB gazes has been reported yet, in contrary to parenteral antibiotics. Other complication rates found in this study were also comparable to current literature.

Digital microscopy is a valid alternative to conventional microscopy for diagnosing Barrett's esophagus

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Introduction Management of Barrett esophagus (BE) relies heavily on the histopathological assessment of biopsies. This assessment is subjective and associated with significant intra- and inter-observer variation. Most guidelines recommend review of biopsies by expert pathologists in case of low-grade or high-grade dysplasia (LGD/HGD). Conventional review of microscopy slides, however, is impractical and does not allow intercollegiate conferences or annotations of relevant findings in images for feedback. A digital revision platform would overcome these practical limitations. Aims & Methods In preparation of a national BE digital revision platform we compared the diagnostic accuracy of conventional and digital microscopy for diagnosing BE+/-dysplasia by a panel of expert pathologists. Sixty BE biopsy slides (NDBE; n=25, LGD; n=20; HGD; n=15) were scanned at x20 magnification. Five expert BE pathologists independently assessed all slides four times in 2 alternating rounds of digital and conventional microscopy. Assessments were supervised by a research fellow and the order of rounds as well as the order of the slides was randomized. Pathologists were blinded for the original diagnosis and identifying slide features. Intra-observer and pairwise inter-observer agreement were calculated using custom weighted Cohen's kappa in four categories (NDBE; IND; LGD; HGD). Kappa scores were expressed as fraction of maximum possible kappa score for each cross table. Results The mean intra-observer agreement was 0.63 for the 2 rounds of digital assessment and 0.74 for the two rounds of conventional assessment. Mean pairwise inter-observer agreement was 0.61 and 0.64 for first and second round of digital microscopy, respectively. For the two rounds of conventional microscopy, mean pairwise inter-observer agreement was 0.62 and 0.66 respectively. In 48/60 (80%) of digital and in 50/60 (83%) of conventional microscopy reviews a majority diagnosis was reached after the first reading.
Conclusion: Diagnostic agreement of digital microscopy is comparable to conventional microscopy in the setting of an expert pathology platform for BE histology. This study validates the use of digital histopathological assessment of BE biopsies and will be used as the underlying infrastructure for a nationwide, web-based BE revision platform in the near future. This will overcome many logistical and practical issues concerned with conventional histologic review by multiple pathologists.

MLDS voordracht: Radiofrequency ablation reduces neoplastic progression in patients with Barrett's esophagus and low-grade dysplasia: A randomized, controlled trial (SURF)

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Background: Barrett's esophagus containing low-grade dysplasia is associated with an increased risk of developing esophageal adenocarcinoma, a cancer with a rapidly increasing incidence in the Western world. Aim: We investigated whether endoscopic radiofrequency ablation could decrease the rate of neoplastic progression. Methods: Multicenter randomized controlled trial that enrolled 136 patients with a confirmed diagnosis of Barrett's esophagus containing low-grade dysplasia, at 9 European sites and conducted between June 2007 and June 2011. Eligible patients were randomly assigned 1:1 to either endoscopic treatment with radiofrequency ablation (ablation) or endoscopic surveillance (control). Ablation was performed with the balloon device for circumferential ablation of the esophagus or the focal device for targeted ablation, with a maximum of 5 sessions allowed.The primary outcome was neoplastic progression to high-grade dysplasia or adenocarcinoma during a 3–year follow-up. Secondary outcomes were complete eradication of dysplasia and intestinal metaplasia, and adverse events. Results: 68 patients were randomized to ablation and 68 to control. Patients treated with ablation were less likely, compared to control, to progress to high-grade dysplasia or adenocarcinoma (1.5% vs. 26.5%, $p<0.001$) and less likely to progress to adenocarcinoma (1.5% vs. 8.8%, $p=0.026$). Complete eradication of dysplasia and intestinal metaplasia occurred in 92.6% and 88.2% of patients in the ablation group, respectively, compared to 27.9% and 0.0% of patients in the control group, respectively. Treatment-related adverse events occurred in 19.1% of ablation patients and 0.0% of controls. The most common adverse event was stricture, occurring in eight ablation patients (11.8%). The Data and Safety Monitoring Board recommended early termination of the trial due to superiority of ablation for the primary outcome and the potential for patient safety issues if the trial continued.

Conclusion: In a randomized trial of patients with Barrett's esophagus with a confirmed diagnosis of low-grade dysplasia, radiofrequency ablation was associated with a reduced risk of neoplastic progression.

Safety and efficacy of circumferential radiofrequency ablation of Barrett's esophagus using the self sizing RFA balloon catheter: results of a pilot study

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Radiofrequency ablation (RFA) is an established endoscopic therapy for treatment of dysplastic Barrett's esophagus (BE). Generally, patients are initially treated with balloon-based circumferential RFA (c-RFA). A standard procedure consists of sizing the esophageal inner diameter using a sizing catheter. Then an ablation balloon with the appropriate diameter is introduced to ablate the BE using 2 applications of 12 J/cm^2 with cleaning of the ablation zone and catheter in between. A recent study demonstrated that this standard c-RFA procedure results in a BE surface regression of 83% at 3-month follow-up, with a median total procedure time of 39 minutes. By incorporating the sizing and ablation balloon into a single device, procedure time may be shortened.Aim of this pilot study was to assess efficacy and safety of the recently developed self sizing RFA balloon catheter. Patients with BE 2-10cm with low-grade dysplasia (LGD), high-grade dysplasia (HGD) or early cancer (EC), confirmed by an expert pathologist, were included. In case of visible lesions, endoscopic resection (ER) was performed prior to RFA. C-RFA was performed using the self sizing balloon catheter, applying 2 applications of 12J/cm^2 with cleaning of the ablation zone and catheter in between. The first follow up endoscopy was performed 3 months after treatment. Primary outcome: percentage of visual surface regression of BE at 3 months graded by two independent endoscopists. Secondary outcomes: procedure time and complications. Thirty patients (24 men, median age 66 yrs (IQR 62-73), median BE C4 (IQR 2-6) M6 (IQR 4-8)) were included. Four patients underwent ER prior to RFA (worst pathology: EC (n=2), HGD (n=1), LGD (n=1)). Worst histological grade prior to RFA: HGD (n=6), LGD (n=22), no dysplasia (n=2). Median BE surface regression at 3 months was 90% (IQR 77-95). Median procedure time was 31 min (IQR 28-38); median ablation time was 20 min (IQR 17-25). Complications occurred in 4 patients (13%): 1 superficial mucosal laceration that did not require intervention; 1 patient showed atrial fibrillation after the RFA procedure; 1 patient presented with vomiting and dysphagia, however, endoscopy did not show any abnormalities; 1 patient was admitted with dysregulated diabetes mellitus. In seven patients esophageal scarring was observed during the 3 months endoscopy, however, all patients were asymptomatic and no interventions were needed.
Conclusion: This pilot study shows that c-RFA using the self sizing RFA balloon catheter may shorten procedure time, but maintains efficacy when compared to standard c-RFA. No severe adverse events related to use of the device were observed.

Impact of radiotherapy on anorectal function in a rectal watch-and-wait programme

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Rectal cancer patients treated according to the watch-and-wait (W&W) policy after neoadjuvant chemoradiotherapy (nCRT) have documented better quality of life (QoL) than patients undergoing surgery or nCRT and surgery. However, the long term impact of chemoradiation alone on target areas, which often includes the anal sphincter complex, has not been investigated yet. The aim of this study was to evaluate the long term anorectal function and its relation to radiation dosimetric data and bowel symptoms in W&W patients. Patients with primary rectal cancer without distant metastases treated according to the watch-and-wait policy in our clinic between January 2009 and April 2013 were included. All patients were treated with 28 fractions of 1.8Gy (total of 50.4Gy) combined with 2x825mg/m2 capecitabine and had a clinical complete response with a follow-up of at least 2 years. Anorectal function was assessed by anorectal manometry. Mean anal resting pressure (MRP), squeeze anal pressure (SAP), first sensation (FS), first urge to defecate (FUTD), and maximum threshold volume (MTV) were objectivated. Patient reported anorectal function was assessed using the Vaizey-score and LARS-score. Radiotherapy planning CT and staging MRI were used for retrospective organ delineation, including rectum and anal sphincter complex. Dose-volume histogram parameters were calculated for these structures with the original treatment plans. Spearman's correlation coefficient was used to determine correlation between manometry parameters, questionnaire scores and dosimetric data. Eighteen patients were included (9 male, mean age:69y), with a mean follow-up of 42 months. Mean MRP was 30mmHg (±17mmHg) and mean SAP was 94mmHg(±45mmHg). Forty percent had no LARS, 36% had minor LARS and 23% had major LARS. Mean dose to the anal sphincter complex was 42.7Gy. In this small patient sample, we found no correlations between manometry outcomes and questionnaires. However, higher radiation dose to the rectum and anal sphincter was correlated to poor patient reported outcomes objectivated by questionairres. Conclusion: Even though watch-and-wait rectal cancer patients have better QoL, they still have impaired anorectal function. Besides, this study shows that W&W patients have low anal resting pressures and low squeeze anal pressures. Higher dose of radiation to the anorectum is associated with poor long term outcomes on the Vaizey and LARS score. This should be taken into account during treatment planning. Therefore, options to reduce anal sphincter radiation dose should be explored. Finally, our data provides important functional information which can be used for future counseling of other patients.

Nasoenteral feeding tube placement in surgical patients by gastroenterologists or nurses: a multicenter randomized controlled non-inferiority trial

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Gastroparesis in surgical patients frequently leads to the need for enteral feeding through a nasoenteral feeding tube. Endoscopic tube placement is relatively cumbersome for patients and labour-intensive for hospital staff. Electromagnetic (EM) guided bedside placement by nurses may reduce patient discomfort, workload, and costs, but evidence from comparative studies is lacking. In this investigator-initiated, multicenter, randomized controlled non-inferiority trial, adult patients admitted to gastrointestinal surgical wards in five Dutch hospitals requiring nasoenteral feeding, were randomly assigned (1:1) to undergo EM guided or endoscopic nasoenteral feeding tube placement. The primary endpoint was the need for reinsertion of an endoscope and/or tube (e.g. after failed initial placement or dislodgement/blockage of the tube). Successful tube placement was defined as a position of the tip beyond D2 (or in the efferent jejunal limb if applicable) on imaging followed by successful delivery of enteral feeding. The trial was designed to assess non-inferiority of EM guided placement with a pre-specified non-inferiority margin of 10% more patients requiring reinsertion. The trial is registered in the Dutch Trial Register, number NTR4420. Between March 2014 and March 2015, a total of 154 patients were enrolled (88% after gastrointestinal surgery, 12% managed non-operatively). Reinsertion of an endoscope and/or tube (primary endpoint) occurred in 27 of 80 patients (34%) in the EM guided group and 31 of 74 patients (42%) in the endoscopic group (absolute risk difference -8%, upper limit of one-sided 95% CI 5%, p for non-inferiority=0.01). No significant differences were noted in success rates of primary tube placement (56 [71%] vs. 52 [70%], RR 1.01 (95% CI 0.82-1.24), p=0.93) or tube related complications, such as dislodgement and blockage (43 [54%] vs. 36 [49%], RR 1.11 (95% CI 0.81-1.51), p=0.52). Conscious sedation was used in none of the 79 (0%) patients undergoing EM guided placement vs. 61 of 69 (88%) patients undergoing endoscopy. Although the level of discomfort (visual analogue scale) was higher in the EM guided group (median [IQR] 3.9 [2.0-6.6] vs. 2.0 [0.2-5.6], p=0.009), pain, social embarrassment, anxiety and total burden were not significantly different between the two groups and EM guided placement received higher recommendation scores than endoscopy (median [IQR] 8.2 [4.8-9.9] vs. 5.5 [2.3-7.8], p=0.008).
Conclusions: EM guided bedside placement of nasoenteral feeding tubes by nurses was non-inferior to endoscopic placement and may therefore be considered the preferred technique for nasoenteral feeding tube placement in surgical patients.

Incidence and Impact of Decompensating Events in Primary Biliary Cirrhosis Results of an International Follow Up Study of 3030 Patients

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Clinical events including development of ascites, variceal bleeding and hepatic encephalopathy are generally considered indicators of poor prognosis in primary biliary cirrhosis (PBC). However few studies have assessed the actual incidence of these decompensating events and the related outcome of patients. In this study, long-term follow-up (FU) data of ursodeoxycholic acid (UDCA) treated patients was derived from 17 North-American and European centers. Decompensation was defined as a first event of ascites, variceal bleeding, or encephalopathy, whichever came first. Patients with an event prior to baseline or within the first year of FU were excluded. Risk factor analysis was performed using Cox proportional hazard models. Data were available for 3030 UDCA treated PBC patients. 92 patients (3.0%) were excluded because of missing data or events occurring before entry or within the first FU year. Median FU was 8.4 years (IQR 4.7-12.9). A decompensating event occurred in 275 patients: ascites: n=167 (60.7%), variceal bleeding: n=76 (27.6%), encephalopathy: n=24 (8.7%), multiple: n=8 (2.9%). One, 3- and 5- year liver transplantation-free survival for patients with or without event was 59.5% vs. 99.8%, 34.7% vs. 97.1% and 19.2% vs 94.2% respectively (time dependent HR 40.6; 95%CI 29.6-55.7). Transplant-free survival did not significantly differ between different types of events. Multivariable analysis showed that at time of first decompensating event, the following factors are predictive of transplant-free survival: age at time of event (per 10 years) (HR 1.39; 95%CI 1.09-1.63), calendar year of event (HR 0.97; 95% CI 0.94-0.99), bilirubin > 2x the upper limit of normal (ULN) (HR 2.98; 95%CI 1.99-4.45) and albumin < 1x the lower limit of normal (LLN) (HR 1.68; 95% CI 1.12-2.53). Transplant-free survival of patients with normal albumin and bilirubin < 2x ULN at time of a decompensating event (median: 4.0 years), is significantly better than of those with abnormal albumin and/or bilirubin > 2x ULN (p<0.001) (median: 0.8 years).

Conclusion In UDCA-treated PBC patients with progressive disease, ascites is usually the first major clinical complication. The prognosis of patients with either ascites, variceal bleeding or encephalopathy as a first complication is comparable and particularly poor, with a 5-yr transplantation-free survival of <20%. A subgroup of patients with normal serum albumin and bilirubin <2x ULN at time of first event has a significantly better prognosis.

Novel Validated Prognostic Model for Primary Sclerosing Cholangitis

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Primary sclerosing cholangitis (PSC) is a cholestatic liver disease, without effective drug treatment options. It is important to be able to make an indication of prognosis, for purposes of patient counseling, management and adequate timing of LT. However, a prognostic model based on a population-based cohort is lacking. Many biomarkers of disease progression have been assessed, recent literature indicates the independent prognostic ability of alkaline phosphatase (ALP) over time. Aim of this study was to create a prognostic model for PSC consisting of disease phenotypical and biochemical variables, and to validate this in an external cohort.
692 PSC patients were identified in a large, population-based PSC cohort from the Netherlands. Variables of PSC phenotype, biochemistry results and long term follow-up (FU) data were retrieved from patient records. The combined clinical endpoints was: development of cholangiocarcinoma, LT, or PSC-related death. Biochemistry values were transformed by log transformation, missing values were imputed by multiple imputation. All variables were assessed as potential predictors of survival by univariate analysis. To calculate the prognostic index (PI), Cox proportional hazards model was developed and internally validated with bootstrap. The model was validated in an external cohort of 259 PSC patients.
The median FU time was 85 months (range 0-468 months). All phenotypical variables and biochemistry results were considered for the model. After variable selection by LASSO, multivariable Cox models were fitted, and parameters estimated from 20 imputation datasets were averaged. The following formula was created:

$PI = 1.409*\text{PSC type(0/1)}^{1} + 0.021*\text{Age\_PSC diagnosis} - 2.420*\text{log\_AlbuminxULN}^{2} + 2.073*\text{abs(log\_TrombocytesxULN-0.5)}^{2} + 0.469*\text{log\_AspartateAminotransferase(AST)xULN}^{2} + 0.565*\text{log\_ALPxULN}^{2} + 0.528*\text{log\_TotalBilirubinxULN}^{2}$

1: PSC type: Large duct=1; Small duct=0
2: xULN= times upper limit of normal

A higher PI indicated a worse prognosis, corresponding to a shorter endpoint-free survival. The PI yielded a c-statistic of 0.715 in the development dataset, and 0.705 in internal validation (adjusted for optimism with 1000 times bootstrap). In the external validation dataset, the PI yielded a c-statistic of 0.683.
Conclusion: By using a population based PSC cohort, we were able to create a prognostic model based on PSC type, age at PSC diagnosis, albumin, thrombocytes, AST, ALP and bilirubin. External validation showed adequate performance. Survival probability at different lengths of FU can be estimated using this validated model. The inclusion of liver biochemistry could facilitate a dynamic prediction of PI over time.

Liver transplantation waiting list mortality in PSC patients is low as compared to non-PSC patients and consistent across laboratory MELD and MELD exception candidates: a nationwide study in the Netherlands

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PSC patients with end-stage disease form a heterogeneous group due to their varying complications. This hinders laboratory MELD score prioritization on the liver transplantation (LTx) waiting list, resulting in both lab MELD (LM) and MELD exception (ME) PSC candidates. In this study we aimed to assess LTx waiting list mortality of LM and ME PSC candidates as compared to non-PSC patients. Patients aged ≥18 years who were listed for LTx in the Netherlands after introduction of the MELD score prioritization to December 31th 2013 were included. Data were recorded until November 2014. Exclusion criteria were reLTx, HU status or combined organ transplantation. A competing risk analysis was performed. During the study period 852 candidates (M 579/ F 273; median age 54.0 yrs) were listed for LTx. Median lab MELD score at listing was not significantly different between PSC patients (n=146) and non-PSC patients (n=706) (13.5 vs. 13.0; p=0.51). ME points were granted in resp. 22 PSC and 227 non-PSC patients (HR 0.34; p<0.001). At the end of follow-up, 582 patients (68%) underwent liver transplantation, 153 patients (18%) died or were withdrawn due to clinical deterioration, 46 patients (5%) were withdrawn for other reasons (Figures A and B). Despite a significantly longer waiting time until delisting in LM PSC patients as compared to non-PSC patients (HR 0.78; p=0.03), a lower mortality on the waiting list was observed (HR 0.53; p=0.02) and an equal chance of LTx (HR 0.93; p=0.59). In ME PSC patients no mortality was observed on the waiting list, whereas the chance of LTx was significantly higher both compared to LM PSC patients (HR 6.97; p<0.001), and to ME non-PSC patients (HR 2.06; p=0.006).
Conclusions: Despite a longer waiting time, LM PSC patients have a lower mortality on the waiting list as compared to non-PSC patients. ME PSC have a high chance of timely LTx.

Postoperative infectious complications decrease long-term survival after partial hepatic resection for colorectal liver metastases

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The impact of postoperative infectious complications on long-term survival after partial hepatic resection for colorectal liver metastases (CRLM) is controversial. We aimed to investigate the association of postoperative infectious complications on long-term survival after partial hepatic resection for CRLM. A prospective cohort study with patients who underwent hepatic resection for CRLM between 2008 and 2013 were included. Patients were categorized by presence of overall morbidity and infectious complications. The infectious complications were prospectively monitored daily by infection control nurse independently based on strict definitions, as surgical site infections, remote site infections, and sepsis. Surgical site infections included superficial wound infections, deep wound infections, intra-abdominal abscesses, and liver abscesses. Remote site infections included urinary tract infections, respiratory infections, and central venous catheter-related infections. Overall survival data were obtained from the central hospital registration. The relation between overall morbidity, infectious complications, and overall survival was tested using Kaplan-Meier and Cox regression models. 291 patients were included with a median follow-up of 30 months. The overall morbidity and postoperative infectious complications rates were 41% (n=119) and 30% (n=86), respectively. Patients with infectious complications had longer surgery time (p=0.02), more estimated blood loss (p=0.003), and longer hospitalization (p<0.001) than those without any complications. Overall morbidity, infectious complications, preoperative comorbidity, and estimated blood loss were found to be prognostic factors of poorer overall survival in univariate analyses (OR 1.50, 95% CI 1.07-2.12, p=0.001; OR 1.72, 95% CI 1.19-2.49, p=0.004; OR 1.55, 95% CI 1.08-2.23 p=0.017; OR 1.02, 95% CI 1.01-1.03, p=0.001, respectively). However, non-infectious complications were not a risk factor of overall survival (OR 1.14, 95% CI 0.75-1.73, p=0.541). Remote site infections, rather than surgical site infections, were found to be an independent risk factor of poorer overall survival (OR 1.87, 95% CI 1.08-3.24, p=0.026; OR 1.21, 95% CI 0.72-2.05, p=0.477) in multivariate analyses.
Conclusions: Postoperative infectious complications rather than non-infectious complications are related to decreased long-term survival following partial hepatic resection for CRLM. Remote site infections are stronger predictors of shortened overall survival than surgical site infections.

Autoimmune hepatitis type 1in Dutch elderly patients

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Background and Aims: Studies on elderly patients with autoimmune hepatitis (AIH) are limited, of small sample size and conflicting when it comes to mode of presentation, treatment and treatment outcome. The aim of this study was to investigate differences in base characteristics, laboratory features, histology, concomitant autoimmune disease, treatment, treatment adverse effects and outcome in elderly patients with AIH type one (age > 60 years at presentation) compared to younger patients with AIH type one (age < 60 years at presentation) and compare them to existing data to provide more insight into AIH in the elderly patient. Patients and Methods: All patients from 4 academic centres with probable or definite AIH type I according to the International AIH Group criteria were included. As much data as possible was retrospectively retrieved by chart review. Primary endpoints were defined as remission, liver transplantation or liver related death. Secondary endpoints were defined as differences in biochemistry and serology, symptoms, mode of presentation, concurrent autoimmune diseases, initial and maintenance treatment regimens, number of switches of therapy, adverse effects of treatment, achievement of remission, episodes of loss of remission, number of relapses, cirrhosis at presentation and progression of cirrhosis. Results: A total of 359 patients were included, 286 (80%) younger patients, 73 (20%) elderly patients. The young group presented with significantly higher serum alanine aminotransaminase ($p<0.001$), presented more frequently with an acute onset of the disease ($p=0.018$), with symptoms of jaundice ($p=0.010$) and experienced a higher frequency of relapses in a single patient ($p=<0.001$) compared to elderly patients. Elderly patients were significantly more likely to present with another autoimmune disease ($p=0.043$) and to develop type 2 diabetes after corticosteroid treatment ($p=0.004$). There were no other significant differences.
Conclusion: One in five patients diagnosed with AIH is above 60 years of age. Compared to younger patients they present more asymptomatically, have more concomitant autoimmune disease, develop more type two diabetes during glucocorticoid therapy and have less relapses. In elderly patients with liver disease AIH should be seriously considered and if present treatment should be started.

Value of Magnetic Resonance Cholangiography in Assessment of Non-Anastomotic Biliary Strictures after Liver Transplantation

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Non-anastomotic biliary strictures (NAS) remain a frequent complication after orthotopic liver transplantation (OLT). The aim of this study was to evaluate whether Magnetic Resonance Cholangiography (MRCP) could be used to detect or exclude NAS and grade the severity of biliary strictures. In total, 58 patients after OLT from two transplantation centres in whom endoscopic (ERCP) or percutaneous transhepatic cholangiography (PTC) and MRCP were performed within less than 6 months were included in the study. Of these patients, 41 had NAS and 17 were without NAS based on ERCP or PTC and follow-up. Four radiologists – two in each center – used an adapted validated classification –termed Leiden Biliary Stricture Classification (LBSC)– to evaluate the MRCP independently and assess NAS severity on a scale from 0 to 3 points in three hepatobiliary regions (i.e., common bile duct, left and right hepatic bile duct, left and right peripheral bile ducts). A maximum of 15 points could be obtained. Interobserver agreement of the severity score and intra-observer agreement between ERCP/PTC and MRCP for each region was calculated with the kappa (κ) statistic. Optimal cut-off value of the LBSC to detect the presence of NAS with MRCP was calculated at ≥ 3 points for all readers. Applying this cut-off, sensitivity for each reader was >90%, with a corresponding specificity of 50-82%, positive predictive value (PPV) of 86-91%, and negative predictive value (NPV) of 80-100%. When the cut-off value was applied to the radiologists' mean scores sensitivity was 98%, specificity 65%, PPV 87% and NPV 92%. MRCP performance was better in evaluation of the intrahepatic bile ducts than of the extrahepatic bile ducts. The additional value of MRCP for grading severity (κ= 0.2 – 0.7) and localizing NAS (κ= 0.2 – 0.9) was limited.
Conclusion: MRCP is a reliable tool to detect or exclude non-anastomotic biliary strictures after OLT. MRCP cannot be used to reliably grade the severity of these strictures.

Hepatocellular carcinoma (HCC) in non-cirrhotic livers is associated with steatosis rather than steatohepatitis: Potential implications for HCC pathogenesis

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Patients with metabolic syndrome (MS) exhibit increased HCC risk, even in absence of cirrhosis. A recent study (J of Hepatol 2015; 62:1148-1155) suggests that there is also a significant risk of progressive liver disease in simple steatosis. Since histological features of non-alcoholic fatty liver disease (NAFLD), including steatosis, may regress in cirrhosis, we compared presence of steatosis vs non-alcoholic steatohepatitis (NASH) in non-tumoral livers specifically in non-cirrhotic HCC patients.Retrospective clinicopathological analysis was performed in 91 non-cirrhotic patients with at most moderate fibrosis, with HCC diagnosed in period 2005-2012 in three Dutch academic centers (total HCC cases: 933). Patients were divided into two subgroups: A) clinical diagnosis of NAFLD (defined as presence of MS without other risk factors for underlying liver disease) or B) other risk factors (with or without MS: group B1) or no risk factors (including no MS: group B2). Histological features were scored based on the NAFLD activity score (NAS) of Kleiner et al., including grade of steatosis, lobular inflammation and ballooning. NAS<3 was classified as no steatohepatitis, NAS 3-4 as border steatohepatitis and NAS≥5 as definite steatohepatitis. Steatosis was classified as grade 0 (<5% of hepatocytes), 1 (5-33%), 2 (34-66%) and 3 (>66%).11 patients (12%) had a clinical diagnosis of NAFLD (group A). Significant steatosis (>5%) was present in 90% of patients (grade 0 in 10%, 1 in 45%, 2 in 45%), whereas lobular inflammation was generally mild and ballooning absent. No steatohepatitis (NAS<3) was seen in 55% of patients, border steatohepatitis (NAS 3-4) in 45%, whereas definite steatohepatitis (NAS≥5) was not seen in any patient.In patients with other underlying risk factors (n=43, group B1: 16 alcohol, 11 HBV, 8 HCV, 4 hemochromatosis, 4 other), 26% had coexistent MS. 37 patients had no clinical risk factors (group B2). For group B (n=80), significant steatosis was also frequent (46%: grade 0 in 54%, 1 in 32%, 2 in 10%, 3 in 4%: no differences between B1 and B2). No steatohepatitis (NAS<3) was seen in 80% and border steatohepatitis (NAS 3-4) in 20%. Just as in group A, definite steatohepatitis (NAS≥5) was not seen. Overall, NAS (P=0.007) and proportion of patients with significant steatosis (P=0.008) were significantly higher in group A than in group B. In both groups steatosis was a frequent finding and definite steatohepatitis was absent. Conclusions: In contrast to steatohepatitis, clinical features of MS and histological steatosis are frequently present in non-cirrhotic HCC patients. The carcinogenic role of steatosis as such, needs further evaluation.

Plasma cathepsin D levels: a novel tool to predict pediatric hepatic inflammation

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Background & Aims: Non-alcoholic steatohepatitis (NASH) is the most severe form of a common hepatic condition known as non-alcoholic fatty liver disease (NAFLD). NASH is histologically characterized by hepatic fat accumulation, inflammation and ballooning, and eventually coupled with fibrosis, which in turn may progress to end-stage liver disease even in young individuals. Hence, there is a critical need for specific non-invasive markers to predict hepatic inflammation at an early age. We investigated if plasma levels of cathepsin D CatD), a lysosomal protease, correlated with severity of liver inflammation in pediatric NAFLD. Methods: Liver biopsies from children (n = 96) with NAFLD were histologically evaluated according to the criteria of Kleiner (NAFLD activity score) and the Brunt's criteria. At the time of the liver biopsy, blood was taken and levels of CatD, alanine aminotransferase (ALT) and cytokeratin-18 (CK-18) were measured in plasma. Results: Plasma CatD levels were significantly lower in subjects with liver inflammation compared to subjects with simple steatosis. Furthermore, we found that CatD levels were gradually reduced and corresponded with increasing severity of liver inflammation, steatosis, hepatocellular ballooning and NAFLD activity score. CatD levels correlated with pediatric NAFLD disease progression better than ALT and CK-18. In particular, CatD showed a high diagnostic accuracy for differentiation between steatosis and hepatic inflammation with a ROC-AUC of 0.94 (95%CI: 0.85-1.03) and a sensitivity and specificity of 100% and 89.5%, respectively.
Conclusions: Plasma CatD holds an extremely high diagnostic value to distinguish pediatric patients with hepatic inflammation from children with simple steatosis.

The IgG/IgG4 mRNA ratio by quantitative PCR accurately determines diagnosis and treatment response in IgG4-related disease

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IgG4-associated cholangitis (IAC) and autoimmune pancreatitis (AIP) are major manifestations of IgG4-related disease (IgG4-RD). Misdiagnosis and inadequate treatment are common since IAC and AIP mimic other inflammatory and malignant pancreatobiliary diseases, and accurate diagnostic biomarkers are lacking. Moreover, since relapse after tapering of immunosuppressive therapy occurs in 50% of patients, there is a need for biomarkers monitoring disease activity. Recently, using Next-Generation Sequencing, we observed that dominant IgG4+ B-cell receptor clones in peripheral blood distinguish patients with active IAC/AIP from primary sclerosing cholangitis (PSC) and pancreatobiliary malignancies (CA) [Hepatology 2013;57:2340]. Here, we report on a simple quantitative PCR (qPCR) protocol for diagnosing IAC/AIP and monitoring disease activity.15 patients with IAC and/or AIP according to HISORt criteria, 7 patients with PSC and 8 with CA formed the test cohort. Intra- and extramural replication cohorts consisted of 16 IAC/AIP, 5 PSC and 13 CA patients (Dutch cohort), and 8 IAC/AIP and 8 PSC patients (British cohort). In 20 Dutch IAC/AIP patients, follow-up samples after 4 and 8 weeks of corticosteroid therapy were available. RNA was isolated and the constant region of the B-cell receptor was amplified using a generic forward IgG primer together with either a generic IgG or a IgG4-specific reverse primer. The ratio total IgG/IgG4 mRNA was calculated and expressed as ΔCT. ΔCT as measure of IgG/IgG4 mRNA expression in peripheral blood of the test cohort was 2.8±1.1 (mean+SD) in IAC/AIP patients, compared to 6.8±1.6 in PSC and 7.6±1.4 in CA (Figure 1A, $p<0.0001$). ROC analysis revealed a ΔCT cut-off value of 5.1 in the test cohort distinguishing all cases from controls. In the replication cohort sensitivity was 95% and specificity 100% (p=8.6*10-21). ΔCT increased after 4 weeks (5.1±0.8) and 8 weeks (7,1±0.7) of corticosteroid treatment, compared to pre-treatment (mean 3.1±1.4, Figure 1B, $p<0.0001$).
IgG4-related disease of the biliary tree and pancreas can be accurately distinguished from PSC or pancreatobiliary malignancies by ΔCT based on an affordable qPCR test. ΔCT can also be used as a marker for treatment response and disease activity in IgG4-associated cholangitis and autoimmune pancreatitis. Acknowledgement: This study was supported by grants from German and American PSC patient organizations (to UB).

Identification of diagnostic items for hepatic and renal cyst infection – an international multispecialty Delphi survey

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The diagnosis of hepatic and renal cyst infection is based on the presence of a positive cyst aspirate culture (i.e. pathogens and white blood cells). However, its availability is limited in clinical practice. Therefore, physicians are forced to make clinical decisions using a mix of clinical, biochemical and imaging findings. The weight of these diagnostic items is uncertain, hence our aim to establish a set of items for cyst infection diagnosis. We used the Delphi survey technique among acknowledged experts to achieve consensus on diagnostic items. We retrieved items from literature and physician/patient interviews. The experts rated each item with the web-based SurveyMonkey software tool during three consecutive rounds. Items were rated for hepatic and renal cyst infection on a nine-point scale with anchors: 1: extremely unimportant and 9: extremely important. The median rating of each item was calculated and divided into one of three categories: inappropriate (≤3.4), uncertain (3.5-6.4) or appropriate (≥6.5). Consensus was determined with the RAND/UCLA disagreement index. We invited 58 experts to participate in the Delphi survey. In total, 35 experts (60%) responded to round one of which 91% (n=32) and 86% (n=30) responded to round two and three respectively. The final panel included 23 nephrologists, five hepatologists, a nuclear medicine specialist, and an infectiologist from five continents and 11 countries (male 67%, mean age 47±11 years, median clinical experience 21 years). We identified 59 items and rated each for hepatic and renal cyst infection. The majority of items was derived from literature (n=46). Ultimately, 22 hepatic and 26 renal diagnostic items were rated as appropriate. Remaining items were rated inappropriate (hepatic n=12; renal n=18) or uncertain (hepatic n=25; renal n=15).
Conclusions: We identified diagnostic items for hepatic and renal cyst infection. Less than half of diagnostic items identified were rated as being appropriate by the expert panel. Combining all items, we developed a diagnostic algorithm for cyst infection.

Hepatocellular carcinoma has a more aggressive disease course in patients with HCV genotype 3 compared to other genotypes

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Introduction: Diabetes mellitus type 2 (DM) and hepatitis C virus (HCV) genotype 3 have been associated with the development of cirrhosis and HCC among patients with chronic HCV infection. This study aimed to assess the association of DM and genotype 3 with mortality after the diagnosis of HCC among patients with chronic HCV infection and advanced liver disease. Methods: All patients who were included in a large multicenter cohort were assessed on the occurrence of HCC. The time of HCC diagnosis was set as baseline, and patients were followed until death or their last follow-up visit. Overall survival was analyzed with multivariable Cox regression analysis. Results: In total, 91(17%) out of 546 patients were diagnosed with HCC. At diagnosis, median age was 59 (IQR 54-66), 73(80%) patients were male, 13(14%) patients had genotype 3 infection, and 23(25%) had DM. During a median follow-up of 2.0 years (IQR 0.9-3.5), 51(56%) patients died. Seventy-eight (86%) patients received treatment for HCC, of whom 26(33%) patients underwent liver transplantation (LT). Seven (58%) patients with genotype 3 and 44 (66%) with non-genotype 3 were within the Milan criteria (p=0.63). Multivariable Cox regression, adjusted for sex and stratified for the presence of metastases, identified age (HR 1.0, 95%CI 1.0-1.1, p=0.04), genotype 3 (HR 3.1, 95%CI 1.2-7.8, p=0.018) and being outside Milan criteria (HR 4.2, 95%CI 1.7-10.0, p=0.001) to be significantly associated with mortality after the diagnosis of HCC. The presence of DM had a border significant association with mortality (HR 2.0, 95%CI 0.9-4.1, p=0.07).
Conclusion: In addition to being outside of the Milan criteria, higher age and presence of HCV genotype 3 were associated with increased mortality among patients with chronic HCV infection and HCC. Patients with genotype 3 should therefore be treated early to avoid progression towards HCC, especially since it has been associated with a more aggressive disease course once HCC is established.

Predictors of treatment response following aspiration sclerotherapy of hepatic cysts: an international pooled analysis of individual patient data

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Aspiration sclerotherapy is an effective therapeutic option for large symptomatic hepatic cysts. However, treatment response shows great variability. Our aim was to identify factors that predicted clinical and technical treatment response.We performed an international pooled analysis of individual patient data of two tertiary referral centers. We included all patients treated with aspiration sclerotherapy of a large (>5cm), symptomatic hepatic cyst. Both centers performed percutaneous cyst aspiration with subsequent intracystic ethanol instillation. Clinical response was defined as complete (disappearance of symptoms), partial (significant decrease of symptoms) or none (no change) at six months. Secondary, technical response was defined as the median proportional cyst diameter reduction at six months. An optimal or suboptimal technical response was defined as the upper (>87.2%) or lower quartile (<50%) of diameter reduction, respectively. Predictive variables of clinical and technical response were analyzed by logistic regression analysis.We included 86 patients (female 90%, mean age 57.8±10.2 years). Complete clinical response rate was 54.7%. In total, 89.6% had either partial or complete clinical response. Overall median proportional cyst diameter reduction at six months was 70.7% (IQR 50.0-87.2%). Patients with complete clinical response had a significantly higher proportional diameter reduction compared to patients with partial or no clinical response (79% vs. 59%, OR 1.02, 95% CI 1.00-1.04). Aspiration of hemorrhagic cyst fluid (59% vs. 30%, OR 4.39, 95% CI 1.34-14.39) or a lower proportional diameter reduction at one month (17% vs. 32%, OR 1.06, 95% CI 1.02-1.10) was associated with a suboptimal technical response (<50%) at six months, but did not predict clinical response.
To conclude, complete clinical response is associated with increased technical response following aspiration sclerotherapy of large hepatic cysts. Aspiration of hemorrhagic cyst fluid or a lower diameter reduction at one month predicts a suboptimal technical treatment response but does not affect clinical response.

MLDS-voordracht: Intracellular traffic jam in NASH the role of oxLDL in triggering hepatic inflammation

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Non-alcoholic steatohepatitis (NASH) is the hepatic event of the metabolic syndrome and is characterized by steatosis and inflammation. Chronic inflammation can lead to irreversible liver damage. However, the mechanisms by which inflammation is triggered are unknown. Consequently, therapeutic options are poor, and non-invasive markers to detect NASH do not exist. Normally, intracellular cholesterol is translocated from the lysosomes to the cytoplasm. However, during hepatic inflammation, we have shown that cholesterol accumulates inside lysosomes of Kupffer cells and obstructs normal lysosomal function. Our research established it is particularly the oxidized form of cholesterol (oxLDL) that tends to accumulate inside these lysosomes. As such, we identified several novel interventions that are aimed at reducing lysosomal cholesterol inside macrophages in the context of NASH. Likewise, we established novel non-invasive markers to detect NASH in plasma of patients with NASH.

Impact of genetic variation of the AVP1a receptor on the presence of circulatory failure in patients with acute decompensation of liver cirrhosis or acute-on-chronic liver failure

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Acute-on-chronic liver failure (ACLF) is defined as an acute decompensation of former stable chronic liver disease (AD) accompanied by the presence of organ failure and a high risk of short-term mortality. Systemic hemodynamic derangement and activation of endogenous vasoconstrictor systems are thought to contribute to the pathogenesis. Arginine vasopressin is a key-regulator in hemodynamic homeostasis and mediates splanchnic vasoconstriction through the arginine vasopressin 1A receptor (AVP1aR). Aim of the present study was to assess whether genetic variation of AVP1aR is associated with the presence of circulatory failure in patients with AD or ACLF. Eight single nucleotide polymorphisms (SNPs) of AVP1aR with possible clinical relevance were identified. From 824 cirrhotic patients admitted for AD, clinical, laboratory and survival data were retrieved from the CANONIC database. Presence of circulatory failure was defined as a mean arterial blood pressure (MAP) < 70 mmHg or the use of vasopressors. ACLF was defined according to the CLIF Consortium Organ Failure score. All patients were genotyped for all eight SNPs using polymerase chain reaction (PCR) followed by restriction fragment length polymorphism or PCR allele-specific amplification primers. Fisher's exact test and linear regression analysis were used to test for association between allele frequencies and dichotomous and continuous variables respectively. Results are shown as mean ± SD. P< 0.05 was considered statistically significant.Patients with ACLF (n=184) had a significantly lower MAP as compared to patients without ACLF (80 ± 13 vs. 84 ± 12 mmHg, p< 0.001). The use of vasopressors was also significantly more frequent in patients with ACLF as compared to those without ACLF (19.0% vs. 2.9%, p< 0.001). Circulatory failure was present in 61 out of 824 patients, of whom 44 fulfilled the criteria of ACLF. A C>T mutation in SNP rs7308855 showed a significant association with the presence of circulatory failure in patients with AD (p= 0.025) and a clear trend towards the presence of circulatory failure in patients with ACLF (p= 0.085). A trend was also found for a T>A mutation in SNP rs7298346 to be associated with the presence of circulatory failure in patients with AD (p= 0.062). In addition, this mutation showed a significant association with the presence of circulatory failure in the subgroup of patients with ACLF (p= 0.046).
Conclusions: Single nucleotide polymorphisms in the AVP1a receptor are associated with the presence of circulatory failure in patients with acute decompensation of liver disease and ACLF.

Impact of chemotherapy-associated liver injury on postoperative outcomes in patients with colorectal liver metastases: a multi-center study

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The impact of chemotherapy-associated liver injury (CALI) on postoperative morbidity and mortality remains controversial in patients undergoing hepatic resection for colorectal liver metastases (CRLM). We aimed to investigate the effect of CALI (e.g. sinusoidal obstruction syndrome, steatosis, and non-alcoholic steatohepatitis) on postoperative morbidity and mortality. A systematic literature search was performed in PubMed and Embase using the following keywords: “chemotherapy”, “liver resection”, “outcome”, and “colorectal metastases”. Eight corresponding authors of papers fulfilling the inclusion criteria agreed on sharing the original data. Uni-variable and multivariate analyses were performed on the consolidated database using logistic regression models. A consolidated database with information of 779 patients undergoing hepatic resection for CRLM was constructed. Histological assessment of resected non-tumor liver specimens revealed that 190 patients (24.5%) had severe sinusoidal obstruction syndrome (SOS, grade 2 and 3 according to Rubbia-Brandt et al.), 117 (15.2%) had severe steatosis (grade 2 and 3 according to Kleiner et al.), and 88 (12.4%) displayed non-alcoholic steatohepatitis (NASH, NAS score ≥4 according to Kleiner et al.). Oxaliplatin-based chemotherapy was an independent risk factor for severe SOS (OR 2.8, 95% CI 1.7 to 4.7, p<0.001), and irinotecan-based chemotherapy for severe steatosis (OR 1.9, 95% CI 1.1 to 3.2, p=0.017), respectively. Severe SOS and NASH were risk factors for postoperative overall morbidity (OR 1.7, 95% CI 1.1 to 2.7, p=0.023; OR 1.6, 95% CI 1.1 to 2.2, p=0.010, respectively) and liver-related morbidity (OR 1.8, 95% CI 1.1 to 2.9, p=0.028; OR 1.8, 95% CI 1.3 to 2.6, p=0.001, respectively) in uni-variable analyses. Although with only 7 postoperative deaths, severe SOS and NASH showed strong tendency towards increased mortality (OR 4.0, 95% CI 0.9 to 18.1, p=0.071; OR 6.1, 95% CI 1.0 to 37.3, p=0.05, respectively). In multivariate analyses, severe SOS and NASH lost significance. Pringle maneuver and major surgical resection were independent risk factors for liver-related morbidity (OR 3.3, 95% CI 1.5 to 7.4, p=0.004; OR 2.3, 95% CI 1.1 to 4.9, p=0.024, respectively). Red blood cell transfusion was the sole prognostic factor (OR 29.8, 95% CI 3.6 to 250.3, p=0.002) for overall mortality.

Conclusions: Chemotherapy before hepatic resection for CRLM is related to increased risk of regimen-specific liver injury. Moreover, chemotherapy-associated liver injury increases the risk of both postoperative morbidity and mortality in uni-variable analyses but not in multivariate analyses.

Final results of peginterferon alfa-2b add-on during long-term nucleos(t)ide analogue therapy in HBeAg-positive patients – a multicenter randomized controlled trial (PEGON study)

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Nucleos(t)ide analogues (NA) are potent inhibitors of viral replication in chronic hepatitis B (CHB) patients. However, sustained off-treatment response is infrequently achieved indicating the necessity of long-term therapy. Peginterferon (PEG-IFN) add-on in HBeAg-positive patients on long-term NA may facilitate serological responses and finite therapy. In this investigator-initiated randomized trial conducted in Europe and China, 82 HBeAg-positive patients were treated for at least 12 months with entecavir (ETV) or tenofovir (TDF) with suppressed HBV DNA and HBeAg positivity at randomization. Patients were randomized to 48 weeks of PEG-IFN alfa-2b add-on, or continued NA monotherapy. Response (HBeAg seroconversion with HBV DNA <200 IU/mL) was assessed at week 48. Responders discontinued treatment at week 72. All patients were followed until week 96. Of the 77 patients eligible for the modified intention-to-treat analysis, 39 were randomized to PEG-IFN add-on and 38 to NA monotherapy. Overall, 95% of the patients were of Asian ethnicity with a mean age of 35 years. Before randomization, patients were pretreated with ETV or TDF for a median duration of 2.4 years. Response, as well as HBeAg seroconversion alone, at week 72 was achieved in 18% of patients in the add-on group vs. 5% of patients in the monotherapy group (p=0.15). At week 96, response was achieved in 18% of patients in the add-on group vs. 8% of patients in the monotherapy group (p=0.31), while the HBeAg seroconversion rates were 21% vs. 8% (p=0.114), respectively. Among 63 PEG-IFN naïve patients, response and HBeAg seroconversion alone at week 72 were achieved in 23% of patients who received add-on vs. 6% of patients who continued monotherapy (p=0.073). At week 96, response was present in 23% of patients in the add-on group vs. 9% of patients in the monotherapy group (p=0.17), while the HBeAg seroconversion rates were 27% vs. 9% (p=0.066), respectively. Response was sustained until end of follow-up in 6/8 (75%) responders who discontinued treatment at week 72 (4/6 [67%] add-on vs. 2/2 [100%] monotherapy; p=1.00). No HBsAg loss was observed at week 72 or 96. Side effects were mainly related to PEG-IFN, such as flu-like syndrome, myalgia and neutropenia. Seven patients in the PEG-IFN add-on group developed thyroid dysfunction, of which at least four were transient. Conclusions: A 48-week PEG-IFN add-on strategy during long-term NA appeared to increase the HBeAg seroconversion rate, especially in PEG-IFN naïve patients. Response was sustained in most patients who discontinued treatment after HBeAg seroconversion and at least 24 weeks of consolidation therapy.

A Randomized Prospective Open-label Trial Comparing Peginterferon Plus Adefovir or Tenofovir Combination Therapy Versus No Treatment in HBeAg-Negative Chronic Hepatitis B Patients with a Low Viral Load: Interim Analysis at End of Treatment

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Chronic hepatitis B (CHB) patients with a low viral load (LVL) are currently not eligible for antiviral treatment. However, they comprise the largest group of CHB patients and are still at increased risk of developing cirrhosis or hepatocellular carcinoma. Here, we present the end-of-treatment results of a randomized trial designed to determine HBsAg loss and dec in CHB patients with LVL receiving combination treatment of peginterferon alfa-2a (peg-IFN) and a nucleotide analogue or no treatment. 134 CHB patients (HBeAg-negative, HBV-DNA <20,000 IU/mL) were randomized 1:1:1 to receive peg-IFN + adefovir (arm I; n=46), peg-IFN + tenofovir (arm II; n=45) or no treatment (arm III; n=43) for 48 weeks (ITT population). Randomization was stratified by HBV genotype A (22%), non-A (B 7%, C 4%, D 26%, E/F/G 20%), or indeterminable (21%). The median age was 43 years, 57% were male. Twelve patients discontinued the study before week 48 (5 in arm I, 6 in arm II, 1 in arm III). HBsAg loss (AxSYM <0.05 IU/mL) and quantitative HBsAg levels (Architect) were determined at regular intervals, and were compared using Fisher's, Mann-Whitney U or Wilcoxon test. No unexpected adverse events were observed in the treatment arms. At end of follow-up (Week 72), 4 patients receiving combination therapy had achieved HBsAg loss, compared to none of the untreated patients (ITT 4.4% vs 0%, p=0.31). Patients with HBsAg loss were treated in arm I (n=1) and arm II (n=3), and had HBV genotype A (n=1), B (n=1), or indeterminable (n=2). In a per-protocol analysis, HBsAg level had declined significantly in all study arms at week 48; -0.33 (p<0.001), -0.22 (p<0.001), and -0.07 (p=0.02) median log10 IU/mL reduction for arms I, II, and III, respectively. HBsAg declined more in treatment arms I (p=0.004) and II (p=0.004) compared to the control arm III. A strong on-treatment HBsAg dec (>1.0 log IU/mL reduction at Week 48) was observed in 17 (21%) treated patients, but in none of the untreated patients (p<0.001). Predictors of HBsAg dec were male sex (p=0.041), higher maximum on-treatment ALT level (p=0.003), and lower Week 12 HBsAg level (p=0.002). Both on-treatment ALT increase, as well as Week 12 HBsAg level remained significant predictors in multivariable logistic regression.
Conclusion: In CHB patients with a low viral load, 48 weeks of combination treatment with peg-IFN and adefovir or tenofovir resulted in 4.4% HBsAg loss, compared to 0 % in untreated controls. The strong HBsAg dec at end-of-treatment in a significant number of patients may indicate a further increase in the rate of HBsAg loss during extended follow-up.

Hepatitis B core-related antigen level decline in the first 12weeks of peginterferon treatment is associated with response in HBeAg-negative chronic hepatitis B

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Markers for prediction of response in HBeAg-negative chronic hepatitis B (CHB) patients are scarce. Hepatitis B core-related antigen (HBcrAg), which is a new serum marker for the combined measure of HBcAg, HBeAg, and p22cr, may be useful for response prediction as it correlates with cccDNA in HBeAg-negative patients. We studied 133 HBeAg-negative CHB patients treated with 48 weeks of peginterferon alfa-2a +/- ribavirin. Serum HBcrAg levels were measured at base and at week 12, and we assessed the correlation with sustained response (SR; ALT normalization & HBV DNA <2,000 IU/mL at week 72). The mean age of the study population was 42 (SD 11) years and 98 (74%) patients were male. Most patients were of Caucasian ethnicity (n=127, 96%), which was reflected by the genotype distribution of 13/1/2/81/3% for genotype A/B/C/D/other, respectively. Mean HBcrAg levels were 5.5 (SD 1.0) log U/mL at base and 4.3 (SD 1.1) log U/mL at week 12. HBcrAg levels strongly correlated with HBV DNA both at base and week 12 ($r=0.8$, $p<0.001$), correlated weakly with qHBsAg at base only ($r=0.2$, $p=0.03$), and but not correlate with serum ALT. SR was achieved in 25/133 (19%); HBcrAg levels at both base and week 12 were available in 23/25 patients, qHBsAg levels in 25/25 patients. HBcrAg and qHBsAg declines at week 12 (adjusted for base levels) were stronger in patients who achieved SR compared to those who did not (HBcrAg: -1.5 log U/mL vs. -1.0 log U/mL, $p=0.04$; qHBsAg: -0.33 log IU/mL vs. -0.06 log IU/mL, $p=0.02$). The area under the curve for a prediction model based on week 12 for HBcrAg, ALT, and qHBsAg was 0.70 (CI-95% 0.57-0.83, $p=0.005$).
Conclusions: On-treatment HBcrAg level dec in the first 12 weeks is associated with response to peginterferon in HBeAg-negative CHB patients. HBcrAg levels are strongly correlated with HBV DNA.

Intrahepatic IP-10 expression is associated with plasma IP-10 levels and a response marker for HBeAg-positive chronic hepatitis B patients treated with peginterferon and adefovir

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Background and aims: Interferon-y–inducible protein-10 (IP-10) is an interferon-stimulated gene that is produced by different types of cells such as monocytes, neutrophils and hepatocytes. After binding to its receptor CXCR3, IP-10 functions as a chemotactic cytokine for T-lymphocytes, monocytes and NK-cells and induces adhesion of activated memory/effector T-cells. We aimed to establish if IP-10 expression in liver tissue and IP-10 levels in plasma of chronic hepatitis B (CHB) patients correlated with each other and further to investigate if IP-10 levels could predict treatment outcome in CHB patients treated with peginterferon and adefovir. Methods: A total of 86 CHB patients (41 HBeAg-positive and 45 HBeAg-negative) received combination therapy of peginterferon and adefovir for 48 weeks. Combined Response (CR) (HBeAg-negativity, HBV-DNA ≤2,000 IU/mL, and ALT normalization) and non-response (NR) were assessed at Week 72. Plasma IP-10 levels were measured at base and during treatment at Day 3 (D3) and Week 1 (W1). Pre-treatment liver biopsies were obtained in 69 of 86 patients, of which 41 were stored in liquid nitrogen, enabling the analysis of intrahepatic IP-10 expression by RT-qPCR. Results: CR was achieved in 14/41 HBeAg-positive and 17/45 HBeAg-negative patients. Mean base plasma IP-10 levels were significantly higher in HBeAg-positive patients with CR than NR (3.20 vs 3.00 log pg/mL p=0.023). This difference was not observed in HBeAg-negative patients. Base IP-10 levels correlated with ALT-levels in HBeAg-positive (r0.66 p<0.001) and -negative patients (r0.55 p<0.001). Plasma IP-10 levels were associated with intrahepatic IP-10 expression, however more strongly in HBeAg-positive (r0.72 p<0.001) than in HBeAg-negative patients (r0.51 p=0.015). Similarly, IP-10 only correlated with HAI scores in HBeAg-positive patients (r0.44 p=0.014). Mean plasma IP-10 levels at D3 increased significantly compared to base (+0.30 log pg/mL p<0.001), and declined subsequently at W1 to a level still significantly higher than base (+0.14 log pg/mL p<0.001). The increase of IP-10 was significantly higher in HBeAg-positive patients with NR than in CRs (+0.35 versus +0.11 log pg/mL p=0.003). Conclusions: Base plasma IP-10 levels correlated with IP-10 liver expression and reflect intrahepatic immune activity. IP-10 levels at base are associated with CR in HBeAg-positive, but not in HBeAg-negative CHB patients treated with peginterferon/-nucleotide combination therapy.

Hepatitis E infection in a tertiary referral center in The Netherlands: evaluating its clinical course and treatment outcome

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Autochthonous Hepatitis E virus (HEV) infections can have important clinical consequences in patients with underlying (liver) diseases and immunocompromised patients. To evaluate patients at risk and optimize treatment strategies, we studied the clinical course and treatment outcome in patients diagnosed with HEV infections in our hospital. All patients with HEV genotype 3 (HEV-3) infections diagnosed by means of reverse transcription polymerase chain reaction test (RT-PCR) between January 2008 and March 2015 were included. We evaluated clinical data on the course of infection, therapeutic interventions and their effect on outcome. Mortality data were analyzed by means of Kaplan Meier analysis. In total 79 patients were included: 41% of patients were tested as part of screening before or after transplantation, the other 59% in case of unexplained hepatitis. Sixty-two percent of the study population was male and median age of patients was 52 years (range 13 - 79). Seventy-five percent of patients was immunocompromised: 47% (37/79) were solid-organ-transplant (SOT) recipients, 23% (18/79) had haematological malignancies and 5% (4/79) were immunocompromised for other reasons. Three patients had only transient viremia whereas 32% (25/79) cleared the infection spontaneously within six months and 30% (24/79) developed chronic hepatitis. Eighteen patients (23%) cleared the infection within six month with interventions. All patients developing chronic hepatitis were immunocompromised. Overall, 13 patients within this cohort died of which 7 related to their underlying diseases. Three patients had pre-existent liver diseases and died of liver-related causes. Four patients died of infections due to haematological malignancies. Time between diagnosis and death was shorter for patients with pre-existent liver diseases (p = 0,028). One-year cumulative mortality in HEV infected patients was 3,8%. Twenty-eight percent of patients on immunosuppressive medication achieved viral clearance after reducing therapy dose. Thirty patients were treated with off-label ribavirin, with a median dose of 10,40 mg/kg (1,96 - 25,04), for a median of 94 days (10 - 560). We found a good response to ribavirin in 25 patients, with a median time to HEV clearance of two months. Viral relapse of HEV after ribavirin treatment was observed in one patient.

Conclusion: Autochthonous HEV infections mainly affect patients with underlying chronic liver diseases or impaired immune systems. Patients with pre-existent liver diseases who acquire an acute HEV infection are at high risk for complications and even death. The off-label use of ribavirin can cure HEV infections.

Effects of preventive versus "on-demand" nutritional support on paid labour productivity, physical exercise and performance status during PEG-interferon- containing treatment for chronic hepatitis C

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PEG-interferon-containing therapy for chronic hepatitis C (CHC) has significant side effects, including (often severe) weight loss and induction of catabolic state. Deterioration of nutritional status during PEG-interferon-containing therapy for CHC can be ameliorated by preventive nutritional support. We aimed to explore whether such support also affects paid labour productivity, physical exercise and performance status. In this prospective randomized controlled trial, 53 patients with CHC had been allocated to “on demand” support (n=26: nutritional intervention if weight loss >5%) or preventive support (n=27: regular dietary advice plus energy- and protein- rich evening snack) during PEG-interferon-containing therapy. Paid labour productivity, physical exercise and performance status were evaluated at baseline, after 24 and (if applicable) 48 weeks of treatment. Decreases of paid labour activity and physical exercise are expressed as % of basal, based on those patients with any paid labour activity or physical exercise at baseline.At baseline, 46% of patients performed paid labour: 15% full time white collar labour, 19% full time blue collar labour, 6% part time white collar labour and 6% part time blue collar labour. Many patients (38%) performed no physical exercise at all, 9% had 60 to 150 minutes of low intensity exercise per week, 30% had >150 minutes of low intensity exercise per week, 4% had 60 to 150 minutes of high intensity exercise per week and 19% had >150 minutes of high intensity exercise per week. Most patients were able to carry out normal activity with only minor symptoms of disease (mean Karnofsky performance score: 94). At baseline, there were no differences between both groups in paid labour productivity, physical exercise or performance status. In patients who reached the primary endpoint of 24 weeks of antiviral treatment (n=22 in both groups), decrease of paid labour productivity (-70% vs. -21% compared to basal, p=0.003), physical exercise activity (-87% vs. -43%, p=0.005) and Karnofsky performance score (-24% vs. -12% compared to basal, p<0.001) were significantly less in the preventive than in “on demand” group after 24 weeks of treatment. Effects of dietary support were even more pronounced after 48 weeks: decrease of paid labour productivity (-89% vs. -17% compared to basal, p=0.023), physical exercise activity (-90% vs. 0% compared to basal, p=0.027) and Karnofsky performance score (-28% vs. -15% compared to basal, p=0.017).
Conclusions: Preventive nutritional support markedly reduces loss of paid labour productivity, physical exercise activity and performance status during PEG-interferon-containing treatment for CHC.

MLDS-voordracht:
FGF1, an old newcomer in the battle against Metabolic Syndrome

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Overeating and a sedentary lifestyle are major contributors to metabolic syndrome and ultimately the diabetes epidemic. Several members of the Fibroblast Growth Factor family (FGF19,21) have shown great promise for treatment of different aspects of the metabolic syndrome. We recently discovered that the classic growth factor FGF1 is induced in white adipose tissue in response to high-fat-diet through a PPAR-gamma dependent mechanism, and thus is also responsive to PPARg drugs such as Actos and Avandia. Next to upregulation by feast, famine represses FGF1, pointing to an unexpected metabolic function. Indeed FGF1 treatment of obese diabetic mice resulted in acute normoglycemia and insulin sensitizing effects. Subsequently we determined here whether FGF1 has pharmaceutical potential against non-alcoholic fatty liver disease, the hepatic manifestation of metabolic syndrome. Effects on lipid metabolism was analyzed in vitro in hepatocyte cell lines and primary hepatocytes. In vivo analysis of hepatic lipid metabolism was performed in diabetic ob/ob mice and wild type mice, complemented with whole-body calorimetric measurements. Chronic FGF1 treatment of ob/ob mice resulted in normalization of glucose levels. Hepatic steatosis was largely reversed and accompanied by an increased hepatic glycogen content. Hepatic insulin resistance was also restored in these mice as indicated by increased repression of hepatic glucose production by insulin in the treated mice during a hyperinsulinemic euglycemic clamp after prolonged FGF1 treatment. Conclusion: FGF1 holds great promise for therapeutic treatment of fatty liver disease.

Treatment of (decompensated) cirrhotic hepatitis C patients with direct acting antivirals: first experience in 76 patients

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Background: Treatment of chronic hepatitis C virus (HCV) infection with all-oral, interferon-free combinations of direct acting antivirals (DAAs) can be expected to cure more than 90% of infections and are generally well tolerated. However, data concerning patients with liver cirrhosis is limited. Since January 2015 second generation DAAs are available for treatment of HCV patients in the Netherlands. This single-center cohort study aimed to assess virological efficacy, clinical outcome and safety of DAA treatment in patients with severe cirrhosis. Methods: All consecutive HCV patients with cirrhosis who started treatment with sofosbuvir based combination therapy with or without ribavirin (RBV) were included. Efficacy of antiviral treatment was assessed by undetectable viral load 4 weeks after the cessation of antiviral therapy (SVR 4). Clinical outcome was examined by evolution of Child-Pugh and MELD scores. Safety assessment was based on serious adverse events reporting. Results Between January and May 2015 76 patients started DAA treatment. Mean age was 56,9 years (SD 8,9) and 56 (73,7%) were male. Compensated cirrhosis (Child-Pugh A) was present in 59 (78,7%) of patients, 16 (21,4%) patients had decompensated cirrhosis (Child Pugh B and C). HCV genotype 1 was found among 48 patients (63,2%), genotype 2, 3 and 4 was present in 2 (2,6%), 18 (23,7%) and 8 (10,5%) patients, respectively. The treatment regimens given were sofosbuvir-RBV in 26,3%; sofosbuvir-simeprevir (SIM) ± RBV in 42,1%; sofosbuvir-daclatasvir (DAC) ± RBV in 31,5%. Treatment duration was 12, 16 or 24 weeks. Per June 1st, nine patients completed 12 weeks of therapy and reached week 4 of follow-up: eight patients attained SVR4. One patient experienced viral break through at 12 weeks of treatment. Both Child-Pugh (CP) and MELD scores remained stable at SVR4 (median: 0,0). In total 5 (6,6%) patients experienced a serious adverse event. Two patients required a blood transfusion because of ribavirin induced haemolytic anaemia, two patients were hospitalised because of hepatic encephalopathy and one patient died of fulminant pneumonia.
Conclusions: The preliminary data strongly suggest that interferon free, sofosbuvir based combination therapy in a population of patients with (decompensated) cirrhosis is highly effective and with a low rate of serious adverse events. SVR12 data of all 75 patients will be available in October.

A single subcutaneous dose of 2mg/kg or 4 mg/kg of RG-101, a galnac-conjugated oligonucleotide with antagonist activity against miR-122, results in significant viral load reductions in chronic hepatitis C patients

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MicroRNA-122 (miR-122) is an important host factor for hepatitis C virus (HCV) replication. Binding of miR-122 to the HCV 5'-UTR RNA protects the genome from degradation and prevents induction of an innate immune response against the virus. RG-101 is a hepatocyte targeted carbohydrate conjugated oligonucleotide with potent antagonist activity against miR-122. The aim of this study was to evaluate the safety and efficacy of RG-101 in chronic HCV patients with various genotypes. In this multicenter phase 1 study, we included 32 chronic HCV patients with genotype 1, 3 or 4 infection. The first cohort of 16 patients received a single subcutaneous injection of 2 mg/kg RG-101 (n=14) or placebo (n=2), the second cohort received a single subcutaneous injection of 4 mg/kg (n=14) or placebo (n=2). Both cohorts were followed until 57 days after randomization, and patients with HCV RNA levels below the limit of quantification (BLOQ) at day 57 were included in an extended follow-up study. HCV RNA levels were measured using Roche COBAS AmpliPrep/COBAS Taqman HCV v2.0 assay, with a reported LLOQ of 15 IU/mL. Thirty-two patients infected with HCV genotype 1 (n=16), genotype 3 (n=10) or genotype 4 (n=6) were included. Twenty-three patients were treatment naïve and 9 patients were virological relapsers to a prior interferon-based therapy. None of the patients had cirrhosis. At baseline, mean HCV RNA levels were comparable between RG-101 dosed patients versus placebo (6.2 versus 6.4 log 10 IU/mL, p=0.53). The mean viral load reduction at day 29 was 4.1 log10 IU/mL (range 2.3-5.8) in patients dosed with 2 mg/kg, and 4.8 log10 IU/mL (range 3.0-5.8) in patients dosed with 4 mg/kg RG-101, as compared with a reduction of 0.0 in the placebo group ($p<0.001$). At day 57, 15/28 patients (gt 1 n=6, gt 3 n=5, gt 4 n=4) dosed with RG-101 had HCV RNA levels BLOQ, and 12 of these 15 patients had HCV RNA levels that could not be detected. In 10/15 patients (gt 1 n=3, gt 3 n=3, gt 4 n=4) HCV RNA levels remained BLOQ at day 85. No dose-limiting adverse events were observed and none of the patients discontinued the study.

Conclusions: A single administration of 2 mg/kg or 4 mg/kg RG-101 was well tolerated and resulted in significant reductions in HCV RNA levels in patients infected with various chronic HCV genotypes and prior treatment history. Patients with HCV RNA levels BLOQ will be followed up to six months to assess if viral cure can be established with one single administration of RG-101.

A low skeletal muscle mass is independently associated with elevated baseline troponin levels in patients at risk for coronary artery disease undergoing abdominal cancer surgery

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Background: Up to 80% of patients with advanced cancer is affected by cachexia. Animal studies suggest that cancer cachexia leads to heart failure, as not only skeletal muscle wasting (sarcopenia) but also cardiac muscle wasting may occur. The aim of this study was to assess the association between skeletal muscle mass and preoperative high-sensitive cardiac troponin T (hs-cTnT) release.Methods: This study is a post hoc analysis of a subgroup of 130 abdominal cancer patients of the MICOLON study. Preoperative hs-cTnT was measured. Troponin levels ≥0.014 µg/L were considered as elevated. Cross-sectional skeletal muscle area was assessed on preoperative abdominal computed tomography scans and corrected for height (L3 muscle index [cm^2/m^2]). Patients were classified as sarcopenic or non-sarcopenic according to previously defined cut-off values. Results: In total, 45 (35.7%) patients had elevated preoperative hs-cTnT levels and 82 (65.1%) were sarcopenic. Preoperative cTnT and L3 muscle index showed a significant negative correlation (R^2=0.038; p=0.029). Patients with elevated hs-cTnT levels had a significantly lower L3 muscle index (44.2 versus 48.5 cm^2/m^2; p=0.001) and higher rate of sarcopenia (91.1 versus 8.9%; p<0.001) compared with patients with normal preoperative hs-cTnT levels. Moreover, the incidence of hs-cTnT ≥0.020 µg/L was significantly higher in sarcopenic patients compared with non-sarcopenic patients (23.2 vs. 4.5%; p=0.007). Besides higher age, a history of congestive heart failure and low eGFR, sarcopenia was independently associated with elevated preoperative troponin levels (OR 11.8 [95% CI 2.6-53.1]; p=0.001) in multivariable analysis.
Conclusion: In this cohort of patients at risk for coronary artery disease, low skeletal muscle mass is independently associated with elevated preoperative troponin levels. These findings support the hypothesis of a bilateral effect of cancer cachexia and heart failure in humans.

Skeletal muscle quality predicts postoperative morbidity after neoadjuvant chemo-radiation and resection for rectal cancer

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In patients with locally advanced rectal cancer treated with neoadjuvant chemoradiation and rectal resection, postoperative morbidity is a significant clinical problem. Identification of preoperative prognostic factors for postoperative outcome is required to better select patients. There is increasing evidence that sarcopenia is associated with poor clinical outcomes. This retrospective study investigated the relation between skeletal muscle mass and quality, and postoperative morbidity after neoadjuvant chemoradiation followed by resection for rectal cancer. Therefore, 99 consecutive patients with locally advanced rectal cancer who underwent neoadjuvant chemoradiation followed by surgery between 01-2007 and 05-2012 were identified. Skeletal muscle mass was measured as total psoas area (TPA) and total abdominal muscle area (TAMA) at three anatomical levels on the preoperative CT scan. Skeletal muscle quality was measured using corresponding mean Hounsfield Units (HU) for TAMA. Postoperative complications were graded according to the Clavien-Dindo classification. Postoperative complications occurred in 68 patients (69%) and grade 3-5 complications in 25 patients (25%). A lower skeletal muscle quality independently predicted overall (p=0.007) and severe complications (p=0.009).
Conclusions: skeletal muscle quality predicts overall and severe postoperative morbidity after neoadjuvant chemoradiation and resection for rectal cancer.

Predictors of severe morbidity after cytoreductive surgery and HIPEC in patients with colorectal peritoneal carcinomatosis

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Aim: This study aims to develop a preoperative prediction model by identifying risk factors for severe morbidity in patients with colorectal peritoneal carcinomatosis (PC) undergoing cytoreductive surgery (CRS) and hyperthermic intraperitoneal chemotherapy (HIPEC). Background: Severe morbidity after CRS+HIPEC is, besides the obvious short-term consequences, associated with impaired long-term outcomes. Risk factors for severe morbidity in patients with PC of colorectal origin are poorly defined. Methods: Patients with colorectal PC who underwent CRS+HIPEC between 2007 and 2015 were categorized and compared between those with and without severe morbidity. Risk factors were determined using logistic regression analysis. Morbidity was graded according to the Clavien-Dindo Classification, with grade≥3 indicating severe morbidity. Results: A total of 211 patients were included, of whom 53 patients (25.1%) developed morbidity Clavien-Dindo≥3. Identified risk factors for severe morbidity were extensive prior surgery (Odds Ratio (OR) 4.3), a positive recent smoking history (OR 4.0), a poor physical performance status (OR 2.9) and extensive cytoreduction (OR 2.5). Patients with an increased number of risk factors more often had severe morbidity as well as higher reoperation, readmission and mortality rates. Furthermore, a preoperative prediction model for severe morbidity with an area under the curve of 71% was constructed.
Conclusions: The current study identified risk factors for severe morbidity after CRS+HIPEC in colorectal PC patients. Patients with a combination of risk factors have a substantial risk of severe morbidity and therefore should be carefully selected for CRS+HIPEC. The preoperative decision model can be a valuable tool in this process of patient selection.

Cytoreductive surgery and HIPEC in patients with peritoneal carcinomatosis from rectal cancer is feasible and provides long-term survival

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Aim: In the non-metastasized setting, colon and rectal cancer are considered as different entities requiring different treatment strategies. However, in colorectal peritoneal carcinomatosis (PC) this difference is less evident and the effect of cytoreductive surgery (CRS) and hyperthermic intraperitoneal chemotherapy (HIPEC) in patients with rectal PC is not clear. This retrospective cohort study aims to assess the feasibility of and outcome after CRS+HIPEC in patients with rectal PC. Methods: Patients with colorectal PC treated with CRS+HIPEC resulting in complete macroscopic cytoreduction between 2005 and 2014 were analyzed. A prospective database was collected and relevant patient and treatment-related characteristics were compared between two groups based on the primary tumor location, being either the rectum or the colon. Results: A total of 306 patients underwent CRS+HIPEC, of whom 31 patients (10.1%) had rectal PC and 275 patients (89.9%) had colonic PC. Major postoperative morbidity occurred in 22.6% of the rectal cancer patients and in 26.5% of the colon cancer patients (p=0.634). The overall recurrence rate was 64.5% in the rectal cancer group and 52.7% in the colon cancer group (p=0.226). Overall survival was 30.6 and 35.4 months in the rectal and colon cancer group respectively (p=0.825). Disease-free survival was similar in both groups (16.3 months, p=0.719).
Conclusion: This study shows that CRS+HIPEC in patients with rectal PC is feasible and safe. The overall survival, the disease-free survival and recurrence patterns in these patients are comparable to those of patients with colonic PC. Patients with rectal PC should not be excluded from treatment with CRS+HIPEC.

Timing of systemic treatment in patients undergoing cytoreductive surgery and HIPEC for colorectal peritoneal carcinomatosis

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Background: Cytoreductive surgery combined with hyperthermic intraperitoneal chemotherapy (CRS + HIPEC) may result in long-term survival in selected patients with peritonitis carcinomatosis (PC) from colorectal cancer. The role of systemic chemotherapy is unknown and timing (adjuvant versus neo-adjuvant) varies between countries. CRS + HIPEC is usually followed by adjuvant chemotherapy. The impact of neoadjuvant chemotherapy in these patients is unknown. The aim of this study was to compare both short and long-term outcomes in patients with synchronous colorectal PC undergoing CRS and HIPEC who received adjuvant or neoadjuvant chemotherapy. Methods: Patients with synchronous colorectal PC that underwent a macroscopically complete CRS + HIPEC (R1-resection) were included in this study. Data was collected from a prospective database containing all patients opted for CRS + HIPEC between April 2007 and December 2014. Survival and perioperative outcomes were compared between patients receiving neoadjuvant or adjuvant chemotherapy. Results: A total of 88 patients with synchronous colorectal PC were included of whom 24 patients (27.3%) were treated with neoadjuvant chemotherapy prior to CRS + HIPEC. The most commonly used chemotherapeutic regimen consisted of Capecitabine/Oxaliplatin (62.5%). PCI-score and operation length were significantly lower in patients receiving neoadjuvant chemotherapy (p=0.04). Complication rates were comparable for both groups. Median survival since diagnosis was 38.6 months in patients receiving treatment with adjuvant chemotherapy, whereas median survival was not reached in patients receiving neoadjuvant chemotherapy (p=0.01). Three-year overall survival rates were 51.1% and 88.7% respectively.
Conclusion: In this study, neo-adjuvant chemotherapy seems to result in improved long-term survival after CRS + HIPEC in patients with synchronous colorectal PC. Ideally, a randomized controlled trial should be performed to investigate the optimal timing of systemic chemotherapy in these patients. By doing so, the survival of these patients may be further improved.

Quality of life in rectal cancer patients undergoing neo-adjuvant therapy followed by low anterior resection or abdominoperineal resection

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Introduction: Patients with rectal cancer undergoing (chemo)radiation followed by low anterior resection (LAR) or abdominoperineal resection (APR) may experience substantial morbidity and poor quality of life (QoL) after treatment. In this study quality of life is compared between patients undergoing LAR or APR at diagnosis, during and after treatment. Methods: This study was performed in a prospective cohort of rectal cancer patients. QoL was standardly measured with the EORTC-C30 and CR29 questionnaires at pre-defined intervals: diagnosis and at 3, 6 and 12 months thereafter. All patients received neo-adjuvant treatment. Informed consent to fill-out QoL questionnaires was mandatory for inclusion. Patients enrolled between February 2013 and March 2015 were included. Results: In total, 143 patients were included. Questionnaires were received from 122 (85.3%), 97 (67.8%), 97 (67.8%), and 73 (51.0%) patients at T0, 3, 6, and 12 respectively. Sixty-nine patients underwent LAR (48.3%), whereas 74 patients received APR (51.7%). Most base characteristics were not significantly different between LAR and APR patients, including neo-adjuvant treatment which consisted of short (49.3% vs. 40.5%) or long course (chemo-)radiation (50.7% vs. 56.8%). Only tumor location (lower third: 20.3% vs. 85.1%, p=0.001) and tumor stage (T2: 4.3% vs. 18.9%, T3: 58.5% vs. 66.2%, T4: 0% vs. 2.7%, p=0.017) differed significantly between LAR and APR respectively. Global health was significantly lower at diagnosis in APR patients compared to LAR (66.6 vs. 74.8, p=0.027), as were physical function (81.4 vs. 90.7, p=0.002) and role function (71.8 vs. 83.9, p=0.013). At 3 months, a comparable downward trend in QoL was observed for both groups. However, between 3 and 6 months APR patients showed a better recovery compared to LAR patients. At 12 months, both groups were comparable and reached their base scores or higher. Defecation pattern in LAR patients remained unchanged at 3, 6 and 12 months (71.8, 68.7, 65.4 respectively) compared to diagnosis (67.9), whereas APR patients showed improvement (83.8, 83.3, 88.9 respectively) after diagnosis (68.1). Fecal incontinence in LAR patients at 6 months was reported to be nonexistent, mild, moderate or severe in 40.7%, 42.6%, 14.8% and 1.9% of the patients respectively. At 12 months, these complaints reduced to 50.0%, 42.1%, 7.9% and 0%.
Conclusion: Patients undergoing APR showed a significantly lower QoL at diagnosis than LAR, however faster recovered was observed between 3 and 6 months. Both reached comparable levels at 12 months. Gastro-intestinal symptoms were present in LAR patients during all intervals but improved at 12 months.

3D-HRAM and Peranal fistulas: pressure profiles are promising

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Perianal fistula as well as surgery can damage the anal sphincters. Conventional anal manometry has shown that this can lead to lower sphincters pressures with soiling (S) and fecal incontinence (FI), but there is no good correlation between complaints and sphincters pressures. With 3 Dimensional (3D) High Resolution Anal manometry (HRAM) regional pressures can be measured and a 3D construction can be made, providing a pressure profile map. With 3D Endoanal Ultrasound (EUS) an anatomic profile map is obtained. Aim was to evaluate the 3D HRAM pressure profile and compare that with the 3D EUS anatomy in patients with active and previous fistulas. In patients with active primary (APF), recurrent (RF) or previous fistulas (PF), both 3D HRAM (Manoview, Given Image) and 3D EUS (BK Medical) were performed. Rest pressure (RPr) <50 mmHg was considered low. A defect with 3D HRAM was defined as a pressure difference between the concordant defect area with 3D EUS and the remaining area (âˆ†P). Concordance was coded as good (âˆ†P>30 mmHg), moderate (10<âˆ†P<30 mmHg) and poor (âˆ†P<10 mmHg).> There were 31 patients (6 men), age 53, range 28-77, 14 APF, 4 RF and 13 PF. Complaints were in patients with APF: 2 FI, 3 S, 8 P and 1 other; with RF: 1 S, 1 P and 2 other; with PF: 6 FI, 3 S, 3 P and 1 other. Patients with APF compared to RF and PF, showed a trend of higher RPr (66, 59 and 56 mmHg), but the âˆ†P was significant higher between APF and RF+PF (37 vs 30 mmHg, p=0.05). Squeeze pressures (SPr) showed the same, a trend for APF, RF and PF (117,126 and 84 mmHg) and significant higher âˆ†P (52 vs 38 mmHg, p=0.05). In the 8 patients with FI, RPr was low in 6 and 2 had dyssynergia. In the 7 patients with S, RPr was normal in 5, but only 5-30 mmHg in the area of the defect and 2 had dyssynergia. Concordance between defects with 3D HRAM Rpr and 3D EUS was good for APF in 64%, RF in 25% and PF in 38%. With SPr, in 8 (32%) patients no âˆ†P was visible; concordance was good for AFP in 50%, RPF 75% and RF 38%. Concordance in APF seems better, probably due to larger and sometimes multiple defects in PF. Although the RPr was within the normal range except for 8 of 31 patients, in many the pressure profile showed profound low pressures in certain regions.
Conclusion: In APF local pressure drops with 3D HRAM in the fistula tract correlate good with 3D EUS. In RF and PF more complex pressure drops were found, with moderate correlation with 3D EUS. In patients with S, local RPr is low. The 3D HRAM pressure profile obtained more detailed information on the functionality of the anal sphincter in patients with (previous) perianal fistula and is a promising tool.

Long term follow up of patients treated for enterocutaneous fistula

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The mortality rate of patients with an enterocutaneous fistula has been reduced by improved surgical techniques and by the introduction of treatment guidelines. Surgical repair has a success rate of closure of the fistula up to 75-90%. Preferably, the abdominal wall should be closed by primarily closure of the fascia. If the fascia cannot be closed primarily, closure of the abdominal wall can be achieved by bridging. Before the introduction of biomeshes this bridging was often achieved by using vicryl meshes. A disadvantage of vicryl meshes is that they are absorbable and may result in an incisional hernia. The aim of this study was to evaluate the incidence of incisional hernias and the effect of having an incisional hernia on the quality of life in patients treated for enterocutaneous fistula. A database of 263 patients was created retrospectively between 1990 and 2008 and prospectively between 2008 and 2014. All patients treated for an enterocutaneous fistula were included. Exclusion criteria for the database were patients with peri-anal fistula and fistula from oesophagus, gastro, duodenum and pancreas to the skin. Exclusion criteria for this study were patients who underwent major abdominal surgery after being treated for ECF, unrelated to the ECF and patients currently admitted to the hospital. All patients were asked to visit the outpatient clinic for an physical examination to determine the existence of an incisional hernia and to complete three questionnaires; the SF-36, HerQLes and BIQ. A total of 36 out of 130 potential eligible patients gave their informed consent (respons rate: 27,7%). Eight patients were treated conservative, 19 patients had primary abdominal wall closure, 9 patients were bridged by vicryl meshes. In patients with primary abdominal wall closure, the incidence of incisional hernia was 36,8%. In patients who were bridged with vicryl mesh, the incidence was 88,9%. Regarding the quality of life, there was no significant difference between patients with and without incisional hernia. There was a significant difference in body image (p=0,007) and cosmetic score (p=0.024) as measured by the BIQ in disadvantage of patients with incisional hernia. A trending towards significant difference is seen in physical functioning as measured by the HerQLes. No difference was found in quality of life as measured by the SF-36.
Conclusion: This study shows an incidence of 88,9% of incisional hernia in patients treated for enterocutaneous fistula with a vicryl mesh. Biomeshes may be the solution for bridging, as they are not-absorbable, but more research is required.

Catheter drainage versus relaparotomy for severe pancreatic fistula after pancreatoduodenectomy: a multicentre propensity-matched analysis

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Postoperative pancreatic fistula (POPF) after pancreatoduodenectomy is a potentially life threatening complication. Treatment consists of catheter drainage or relaparotomy. We compared these treatment strategies in a multi-centre study. In a retrospective observational cohort study all patients with severe POPF (grade B/C) following pancreatoduodenectomy between January 2005 and September 2013 in 9 centres of the Dutch Pancreatic Cancer Group were analysed. Patients were divided in two groups based on the initial intervention for POPF: catheter drainage or relaparotomy. We preformed propensity score matching based on sex, age, Association of Anaesthesiologists [ASA] score, disease severity 24h before first intervention (i.e. APACHE-II score, presence of Systemic Inflammatory Response Syndrome [SIRS] and organ failure) and previous undergone interventions for other postoperative complications. Primary endpoint was mortality. Secondary endpoints included new onset single- and multiple-organ failure. Out of 2196 of pancreatoduodenectomies, 309 patients underwent an intervention primarily for a severe POPF: 227 patients (73%) underwent primary catheter drainage and 82 (27%) underwent primary relaparotomy. Of all patients treated with primary catheter drainage, 83% was treated with catheter drainage only. A total of 64 patients undergoing primary relaparotomy were successfully matched to 64 patients undergoing primary catheter drainage. Mortality was significantly lower after primary catheter drainage than after primary relaparotomy (14% vs. 36%, risk ratio [RR] 0.39, 95% confidence interval [CI] 0.20-0.75, P=0.007), as was new-onset single- (3% vs. 20%, RR 0.15, 95%CI 0.03-0.60, P=0.007) and multiple-organ failure (16% vs. 39%, RR 0.40, 95%CI 0.20-0.77, P=0.008).
Conclusion: Primary catheter drainage is associated with better clinical outcomes, including lower mortality, compared to primary relaparotomy in patients with severe pancreatic fistula after pancreatoduodenectomy.

Is there a difference in laparoscopic cholecystectomy performed by a resident or a surgeon in Dutch clinics?

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Laparoscopic cholecystectomy (LC) can run a complicated course with severe complications akin bile duct injury. We conducted a prospective analysis in a non-residency and a (STZ) top-clinical hospital to examine whether a resident can perform the operation safely in comparison to a surgeon. Operational experience, degree of conversions to laparotomy and complications were analyzed. Foreign studies report ambivalent results regarding the influence of a residency program on safety, efficacy and financial consequence. All the more reasons to take a closer look at the Dutch situation. We undertook a prospective study in a top-clinical hospital (STZ) and a laparoscopic hospital without surgical residents. All consecutive (laparoscopic) cholecystectomy were included between September 2014 and March 2015. Patient characteristics, operative procedure, level of experience (resident vs. surgeon), operation time, intra- and postoperative complications, mortality, length of hospital stay, re-admittance and conversions to laparotomy were analyzed. All 294 consecutive (laparoscopic) cholecystectomies preformed in both clinics (top-clinical hospital = 50%, non-residency hospital = 50%) show a statistical significant (p = <0,001) increase in operation time. On average a resident needed 25 minutes more to complete the surgery compared with a surgeon (non-residency setting 47 minutes and residency program 72 minutes). The number of conversions did not increase significant (p=0.283) and the number of re-admissions were comparable in both clinics (p=0.375). The residency program showed statistical significant more postoperative complications (p=0.042) among with more peroperative liver lesions (p<0.001). Both the increase in operation time and the liver lesions were not associated with an increase in complication rate. While surgery performed by residents demonstrated more complications. Thus we are looking for advanced training methods to prevent these specific complications such as liver injury in the future.

Influence of the use of decision tools for appendicitis and diverticulitis on diagnostic certainty in the Emergency Department

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Rationale: Correctly identifying patients with acute appendicitis or diverticulitis is a diagnostic challenge. The majority of these patients is referred for additional imaging. Decision tools can be used to prevent over-utilisation of imaging by selecting patients for diagnostic imaging. Several decision tools have been developed and validated, however their influence on the use of hospital resources and certainty of diagnosis has not yet been evaluated. The objective of current study was to assess the influence of the use of decision tools on clinical practice. Methods: Between 2009 and 2013 adult patients with acute abdominal pain (AAP) were included in a multi-center prospective cohort study (AAP study). Immediately after clinical evaluation surgical residents recorded their diagnosis and its certainty (VAS score). A decision tool had to be completed in case of suspected acute appendicitis or diverticulitis. Upon completion, residents were provided with the outcome and recorded their diagnosis and certainty once more. An expert panel assigned the final diagnosis after three months of follow up. Results: A total of 294 patients were enrolled in three hospitals. The clinical diagnosis was correct in 81 of the 143 patients (56.6%) suspected of appendicitis. A combined clinical diagnosis with decision tool use was registered in 132 patients suspected of appendicitis and correct in 72 patients (54.5%). The clinical diagnosis was correct in 11 of the 20 patients (55%) suspected of diverticulitis. The level of certainty of residents increased after completion of the decision tool for only 19.2% of patients with final diagnosis appendicitis and 13.6% patients without appendicitis. For diverticulitis these proportions were 36.4% and 37.5%, respectively. In only 18% of patients with diverticulitis the decision tool was reported to influence the utilization of imaging, and in none of the patients with an alternative final diagnosis.
Conclusion: This multi-center prospective cohort study demonstrates that use of decision tools for acute appendicitis and diverticulitis has limited influence on the modest accuracy and certainty of a clinical diagnosis. Currently, decision tools are unlikely to influence utilization of hospital resources. The diverticulitis decision tool has some potential to influence daily practice.

Acute laparoscopic and open sigmoidectomy for perforated diverticulitis; a propensity score-matched cohort

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Hartmann's procedure for perforated diverticulitis can be characterised by high morbidity and mortality rates. While the scientific community focuses on laparoscopic lavage as an alternative for laparotomy, the option of laparoscopic sigmoidectomy seems overlooked. This study aims to show a possible reduction in morbidity and hospital stay following acute laparoscopic sigmoidectomy (LS) compared to open sigmoidectomy (OS) for perforated diverticulitis. Between July 2010 and July 2014, patients from 28 Dutch teaching hospitals were included in this a retrospective cohort. Patients with LS were matched 1:2 to OS using the propensity score for age, gender, previous laparotomy, CRP level, gastrointestinal surgeon and Hinchey classification. The propensity score was calculated using multivariable logistic regression analysis using open or laparoscopic surgery as dependent variable. The cohort consisted of 39 patients with LS and 78 patients with OS, matched from a total of 307 patients. In both groups, 66% of the patients had Hartmann's procedure and 34% had primary anastomosis. The hospital stay was shorter (LS 7 vs OS 9 days; P=0.016), and the postoperative morbidity rate was lower following LS (LS 44% vs OS 66%; P=0.016). Mortality was low in both groups (LS 3% vs OS 4%; P=0.685). The probability of being stoma-free at 12 months after Hartmann's procedure was 88% and 62% in the LS and OS groups respectively (P=0.019). After primary anastomosis, the probability of reversal was 100% in both groups.
Conclusions: In this propensity score matched cohort, laparoscopic sigmoidectomy is superior to open sigmoidectomy for perforated diverticulitis with regard to postoperative morbidity and hospital stay. Although the groups are matched, the results should be interpret with caution as the cohort consist of selected patients and surgery was performed by experienced gastrointestinal surgeons.

Patterns of care and overall survival in elderly patients with resectable esophageal cancer in The Netherlands: a population-based study

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Introduction: According to the Dutch guidelines, patients with resectable esophageal cancer (EC) should be treated with neoadjuvant chemoradiation followed by subsequent esophagectomy. Definitive chemoradiation (dCRT) can be an alternative treatment option in patients not eligible for surgery, such as some elderly. The objective of this study was to determine the use of surgery and dCRT in the elderly and their influence on overall survival. Methods: All 3711 patients with an age of 75 years or older with resectable EC (cT2-3, cN0-1, cM0-1A) diagnosed in the Netherlands between 2003-2012 were selected from the Netherlands Cancer Registry. Multivariable Cox regression analysis were performed to examine factors influencing survival. Results: Thirty-three percent of the elderly patients received treatment with a curative intent (22% surgery with or without neo-adjuvant CRT and 11% dCRT). Patients received palliative treatment in 45% and no treatment at all in 23%. There was a strong increase in the use of dCRT from 3% in 2003 to 20% in 2012. The use of surgery slightly decreased from 21% to 18%. Multivariate cox regression survival analysis showed that patients who received surgery and dCRT had a better overall survival compared with patients who received palliative treatment or no treatment. Elderly patients receiving dCRT had a worse survival compared to surgery (HR=1.19, P=0.018. Subgroup analysis revealed that in elderly patients with a squamous cell carcinoma no significant difference was observed in survival between patients undergoing surgery or dCRT (HR=1.29, P=0.131). In elderly patients with an adenocarcinoma however, dCRT had a significant worse survival compared to surgery (HR=1.29, P=0.003). Conclusion: Only one-third of the elderly patient with resectable oesophageal cancer receive treatment with a curative intent. There is a strong increase in use of dCRT among eldery patients. Definitive chemoradiation seems to be an reasonable alternative treatment in elderly patients with squamous cell carcinoma who are not eligible for surgery as there is no survival difference between these two treatment options. However in elderly patients with adenocarcinoma surgery is still the standard of care.

Aortic calcifications increase the risk of anastomotic leakage after Ivor-Lewis esophagectomy

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Goal: Anastomotic leakage is a feared complication after esophagectomy and is associated with postoperative morbidity, mortality and increased length of hospital stay. Calcification of the arteries supplying the gastric tube is an independent risk factor for anastomotic leakage after esophagectomy with cervical anastomosis. However, this has not yet been investigated in esophagectomy with an intrathoracic anastomosis, in which the shorter length of the gastric tube might relatively cause less ischemia. Therefore, the aim of this study was to evaluate the relation of atherosclerotic calcifications of the supplying arteries of the gastric tube, as determined by scoring calcifications, and the occurrence of leakage of the intrathoracic anastomosis after esophagectomy for cancer. Materials and methods: This retrospective study included all patients who underwent minimally invasive Ivor-Lewis esophagectomy for esophageal cancer from April 2012 until March 2015. The preoperative computed tomographic images were used to detect artery calcifications of the gastric tube. Presence and severity of calcifications (0: no calcifications, 1: minor calcifications, 2: major calcifications) were scored according to anatomic location; aorta (score of 0–2), celiac axis (score of 0–2), right postceliac arteries (score of 0–1), and left postceliac arteries (score of 0–1). The extracted base and procedure-related characteristics together with the calcification scores were compared between patients with leakage and without leakage by multivariable logistic regression analysis. Results: Overall 167 patients were included in this study of which 40 (24%) developed anastomotic leakage. No base characteristics were significantly associated with anastomotic leakage. At univariable analysis leakage was most frequent in patients with calcification of the aorta (score 2; 37% [16 of 43] and score 1; 32% [18 of 56] versus score 0; 9% [6 out of 70], P=<0.001). Calcifications of the celiac axis, right or left postceliac arteries were not significantly associated with anastomotic leakage. Minor (odds ratio [OR] 5.7, 95% confidence interval [CI] 1.8–17.7), and major aortic calcifications (OR 7.1, 95% CI 1.9–26.9) remained associated with anastomotic leakage after multivariable analysis.
Conclusions: Atherosclerotic calcification of the aorta is an independent risk factor for leakage of the intrathoracic anastomosis after esophagectomy for cancer. This calcification scoring system can help in selecting patients who might benefit from interventions to optimize the condition of the anastomosis.

The prognostic value of a modified tumor regression grade after neoadjuvant chemoradiotherapy and resection of esophageal carcinoma

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The tumor regression grade (TRG) is used to define the response to preoperative chemoradiotherapy for esophageal carcinoma. The aim of this study was to determine whether inclusion of the postoperative pathological nodal status could improve the prognostic value of TRG. All patients who underwent an esophagectomy after chemoradiotherapy between 2003 and 2013 were included in this retrospective study. Patients were classified according to a modified TRG consisting of the TRG by Mandard et al (TRG 1 = complete response in the esophagus; TRG>1 = incomplete response) and the postoperative node category (N0 = no lymph node metastases; N+ = at least 1 lymph node metastasis). Based on the TRG by Mandard and this modified TRG Kaplan-Meier survival analyses were performed and compared. 411 patients underwent neoadjuvant chemo-radiotherapy followed by esophagectomy. After exclusion due to non-specific histology (n=2), unknown TRG (n=3), intraoperative detection of distant metastases (n=3), salvage procedures (n=17) and in-hospital mortality (n=15) 371 patients were analyzed (289 adenocarcinoma, 82 squamous cell carcinoma). A significantly improved median disease free survival was observed in patients with TRG 1 compared to patients with TRG>1 (90.3 vs. 30.8 months, P=0.004). After implementation of the modified TRG significant differences in median disease free survival were found between the four categories: TRG 1-N0 (n=76) 90.3 months; TRG 1-N+ (n=10) 20.8 months; TRG >1-N0 (n=146) 81.3 months; TRG >1-N+ (n=139) 18.1 months (P<0.001).
Conclusion: The TRG, determined in the primary tumor, provides insufficient information about the prognosis after chemoradiotherapy followed by resection of esophageal cancer. It is advisable to use a modified classification in which the postoperative pathological nodal status is considered.

The unfounded poor reputation of surgical treatment of GERD in The Netherlands

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Gastroesophageal reflux is a common complaint in the Dutch population. Over 25% of the entire adult population has monthly, 12% weekly and 5% daily complaints. Primary treatment is often pharmacological treatment by the patients' general practitioner (GP). Surgical intervention is currently only indicated for patients with refractory GERD, those with complaints of (acid) regurgitation or extra-esophageal manifestations of reflux disease. Historically, surgical treatment of GERD has had a very poor reputation. In a nationwide survey polling general practitioners and gastroenterologists in 2004, most vastly underestimated success-rates and overestimated complication rates. Surgical treatment of GERD has evolved in last few decades. Where in the past most patients underwent Nissen fundoplication via laparotomy, nowadays most if not all patients receive a partial fundoplication via a minimal-invasive technique: laparoscopy. The aim of this study was to repeat the aforementioned survey to determine whether knowledge of, and the opinions on antireflux surgery have improved. And to correlate these data with the current state of affairs as reported in medical literature and guidelines. In 2014, a digital questionnaire was sent to 2053 general practitioner and 414 gastroenterologists. This questionnaire contained questions ranging from estimates of success and complication rates to questions polling the opinion on maximum age limits, indications for surgery and personal experiences. 240 (12%) of the general practitioners and 73 (18%) of gastro-enterologists completed the questionnaire. While a majority (88%) treated patients with reflux disease on a regular basis, only 17% of the GPs and 68% of gastroenterologists reported to be fully knowledgeable about antireflux surgery. Success rates are estimated at 55% and 75% by GPs and gastroenterologists, respectively. In current literature, reported success rates are at 85-95%. The majority of GPs reported to have either no (58%) or negative (19%) experiences with antireflux surgery. Gastroenterologists, however reported positive experiences in 58%, 37% negative-, and 5% reported no experience.
This study shows that the poor reputation of surgical treatment remains. There is a discrepancy between the experiences and estimates of GPs and gastroenterologists, but neither resemble the reported results in medical literature. Many patients that might benefit from antireflux surgery currently are denied surgical treatment based on its (unfounded) poor reputation.

Recreating the physiological intussusception at the GE-junction to control refractive GERD: The gastro-esophageal valvuloplasty

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In the debate over the etiology of gastroesophageal reflux disease, most emphasis has been laid on the role of the LES function. In 1996, Hill et al. renewed interest in the GE-valve by publishing a grading system of this valve using its endoscopic appearance and concluded that a defunct valve was a strong predictor of GERD. Currently, many treatment options exist. Most reduce acid reflux by creating a mechanical barrier via fundoplication. The Belsey Mk IV procedure attempts to recreate the GE-valve yet results in an insufficient valve. Further development of the Belsey Mk IV, a true gastroesophageal valvuloplasty might be the next step in anti-reflux surgery by recreating normal anatomy. Between November 2012 and September 2014, we performed 58 robot-assisted laparoscopic hiatal hernia repair followed by a gastroesophageal valvuloplasty. Gastro-esophageal Valvuloplasty was performed by three sutures, one at the greater curve, the second at the lesser curve and one in between. Each suture was placed 2cm from the GE junction onto the stomach, 2cm from the GE Junction onto the esophagus, and finally to the diaphragmatic crus. After tying the sutures the esophagus was intussuscepted into the stomach forming a flap valve and the entire valve mechanism was suspended onto the hiatal closure. Patients were retrospectively analyzed and suffered from refractory GERD due to none or a small sliding hernia in 21% or para-esophageal and mixed type or giant hiatal hernia in 38% and 40%, respectively. In all cases surgery was completed successfully. There were no conversions. Five procedures were complicated by the need to insert a chest tube due to a pleural defect while dissecting the hernia sac. During recovery there were no major complications. All patients had a postoperative intact GE-valve (Hill I). 86% of all patients reported none or easily manageable minor complaints, 10% reported mild symptoms, often delayed gastric emptying. Two patients reported no improvement of complaints, one suffered from gastroparesis, the other dysphagia.
The gastroesophageal valvuloplasty is a viable option to treat GERD and is based on recreating normal anatomy instead of creating a mechanical barrier to control acid reflux.

Different approaches for redo antireflux surgery: The robot-assisted minimal invasive Abdominal route versus the open thoracic approach

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Hiatal hernia repair and fundoplication for therapy refractive GERD is often successful however in distinct percentage of cases, patients suffer from recurrence or severe dysphagia. Redo antireflux procedures are known for its difficulties, higher mortality- and complication rates as well as poor outcome. Surgery can be performed by and abdominal or a thoracic approach. Robotic technology has shown to be of support in a minimal invasive abdominal approach. We aim to describe and compare the minimal invasive abdominal approach to the open thoracic procedures. In 2013 and 2014, all patients that underwent a redo antireflux or hiatal hernia surgery at two hospitals - each with its own unique approach - were retrospectively analyzed. 18 patients were treated using a robot-assisted laparoscopic approach, 12 via thoracotomy. All patients suffered from either severe dysphagia, recurrence of a hiatal hernia or slipped fundoplication. The mean time to redo surgery was 2 years. In the abdominal group, there was 1 conversion to laparotomy due to the inability to safely proceed. Three complications occurred in the abdominal group; one gastric perforation, one pleural defect requiring chest tube and one minor bleeding. There were no complications in the open thoracic group. Median hospital stay was 4 [2–5] and 7 [5–8] in the abdominal and thoracic groups, respectively. The hospital stay was without complications in 89% of all abdominal patients, yet 50% in the thoracic group, the common most being pneumonia. At follow-up, all patients had a Visick score of 1 or 2.
Both approaches have distinct advantages and disadvantages. We aim to develop a minimally invasive robot-assisted thoracic approach to allow optimal opportunities in a patient tailored approach.

Laparoscopic adjustable gastric banding (LAGB) after failed gastric bypass: is the additional weight loss worth the risks?

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Roux-en-Y gastric bypass (RYGB) is associated with 15% weight loss failure, resulting in insufficient weight loss or weight regain. Strategy of surgical revision focuses on alteration of limb length, pouch size or stoma size. Altering pouch size by adding LAGB might be an alternative technique to initiate further weight loss. The aim of this study was to review the safety and efficacy of LAGB after failed RYGB. Between May 2012 and January 2015, patients with inadequate weight loss or weight regain after RYGB were selected by their surgeon for secondary LAGB (n=44). Demographics, effects on weight loss and complications were analysed retrospectively. Mean age and body mass index (BMI) at time of LAGB was 45,8±8,2 years and 37,2±5,4 kg/m^2 respectively. The mean interval between RYGB and LAGB was 2,6±1,3 years. Mean follow-up was 14±7,9 months. Due to LAGB, patients lost an additional excess weight of average 12,7±20,3% and mean BMI was 36,3±6,3 kg/m^2 at 12 months. Combining RYGB and LAGB resulted in 34,6±27,2% excess weight loss at 12 months follow-up. Overall complication and reoperation rates were 29,5% and 20,5% respectively. Reoperation was performed due to port flip (n=1) or band removal (n=6). Reasons for removal included band migration (n=2), persistent dysphagia despite complete desufflation (n=3) and postoperative chronic abdominal pain (n=1). One case of band leakage and one fatality due to septic shock following band erosion were observed.
In conclusion, the results of secondary LAGB after failed RYGB in this cohort are disappointing with only moderate weight loss. Adequate multidisciplinary screening prior to this procedure is necessary to determine in which patients the potential benefits outweigh the serious complications that might occur.

Introduction of laparoscopic gastrectomy for gastric cancer in a Western tertiary referral centre: a prospective cost analysis pilot study during the learning curve

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Background: Evidence suggests the equivalence and short term superiority of laparoscopic surgery for gastric cancer compared to an open procedure. Financial aspects of new techniques remain important due to expanding health care costs. Therefore, a cost analysis was performed during the introduction of laparoscopic gastrectomy for gastric cancer. Methods: All consecutive patients treated with laparoscopic surgery for gastric cancer with curative intent in 2013 and 2014; open procedures were also prospectively included and partially retrospectively identified to obtain equal size groups. Primary outcomes were costs regarding surgery and hospital stay. Secondary outcomes were blood loss, duration of surgery, length of hospital and ICU stay, (major) complications, anastomotic leakage and oncological safety (lymph node harvest and R1 resections). Results: The laparoscopic approach was used in 52 patients (mean age 68 years [±9, range 50 to 87] years). The open approach was used in 55 patients (mean age 70 years [±11, range 46 to 87]). Mean costs (in euro's) of surgical instrumentation were significantly higher for laparoscopic surgery: mean 2270 (±670) vs. 800 (±598) in the open approach ($p<0.001$). Costs of theatre use were higher in the laparoscopic group: mean 3818 (±864) vs. 2504 (±986) in the open surgery ($p<0.001$). Total costs of hospitalization (i.e., costs of surgery and admission) were not different between laparoscopic and open surgery, 8187 (±4864) and 7915 (±8653) respectively ($p=0.843$). Mean length of hospital stay was 8.8 [±11.6, range 2 to 84] days in the laparoscopic group versus 16.6 [±16.8, range 5 to 78] days in the open group ($p = 0.006$).
Conclusion: The introduction of laparoscopic gastrectomy for gastric cancer coincided with higher costs for theatre use and surgical instrumentation compared to the open technique. Total costs were not significantly different due to shorter length of stay and less ICU admissions and shorter ICU stay in the laparoscopic group.

The 'bariatric' Roux-en-Y reconstruction in laparoscopic gastrectomy for advanced gastric cancer

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Over the past decades, laparoscopic surgery for gastric cancer has evolved rapidly. Compared to the open approach, laparoscopic gastrectomy appears to result in faster return of gastrointestinal function, a shorter length of hospital stay and comparable oncological outcomes. However, since this procedure is technically demanding, the optimal laparoscopic anastomotic reconstruction technique remains to be elucidated. In bariatric gastric bypass surgery, the antecolic, antegastric Roux-en-Y bypass reconstruction with linear staplers is a widely used anastomotic technique. In an attempt to decrease perioperative morbidity and shorten operation time, we introduced and standardized this bariatric laparoscopic Roux-en-Y reconstruction after (sub)total gastrectomy for advanced gastric cancer. Aim of this study was to describe our technique and retrospectively evaluate our first short-term results. Primary outcomes were perioperative morbidity, mortality and oncological outcome (i.e. resection margin, amount of harvested lymph nodes and recurrence rate). Secondary outcomes were operation time, length of hospital stay and postgastrectomy sequelae (i.e. dysphagia, dumping syndrome and malnourishment). From August 2012 until March 2015 51 patients underwent a bariatric laparoscopic Roux-en-Y reconstruction after a (sub)total gastrectomy for either stage I-II (22 patients (43%)) or stage III-IV (29 patients (57%)) gastric cancer. In 22 patients (43%) a subtotal gastrectomy was performed and in 29 patients (57%) a total gastrectomy. Conversion rate was 3.9% (n=2). Postoperatively, 7 patients (13.7%) developed one or more major complications (Clavien-Dindo ≥ III). Two patients needed radiologic drainage for an intra-abdominal abscess. Four patients (7.8%) developed anastomotic leakage of which two needed an intervention. Two other patients needed an intervention because of bleeding (splenic injury) and one because of a jejunal perforation. In-hospital mortality rate was 5.9%. R0 resection was achieved in 84.3%. Median lymph node count was 23. Median operation time was 160 minutes (range 100-244). Median length of hospital stay was 9 days (range 5-44). During follow-up, benign anastomotic stenosis requiring endoscopic dilatation and placement of a stent occurred in 3 patients (5.9%). Five patients (9.8%) suffered from dumping symptoms and 3 patients (5.9%) needed additional enteral feeding because of malnourishment.
Conclusion: Laparoscopic gastrectomy with a bariatric Roux-en-Y reconstruction appears to be a safe and feasible procedure in the treatment of advanced gastric cancer.

LINE1-PCR: a new, clinically applicable sequencing tool for the detection of genomic instability in oesophageal adenocarcinoma

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The progression from Barrett's oesophagus (BO) to oesophageal adenocarcinoma (OAC) involves the development of genomic instability. Genomic instability, as reflected by copy number aberrations (CNAs), has been proposed as a progression biomarker for this disease. Although technologies exist to recognize CNAs they may not give sub-chromosomal resolution, are too expensive to implement clinically and/or require technical expertise and therefore are still not automatable. We sought to define a clinically applicable genomic technique to define CNA's. LINE1 retrotransposons are ubiquitous throughout the genome. They are repetitive yet contain a small degree of diversity. We hypothesised that these features would allow LINE1 sequences to be uniquely aligned to a reference genome having undergone PCR using only a single primer pair. Because they are ubiquitous the sequencing could allow delineation of CNAs on all chromosomes, offering a novel, reliable and simple test for measuring genomic instability. A LINE1 consensus sequence was used to perform a two-round barcoding PCR, optimized for next generation sequencing. Fifteen germ blood samples that had already undergone whole genome sequencing (WGS) were obtained to establish criteria for the optimal number of reads with minimal variation. 17 OAC samples then underwent LINE1-PCR and the detected CNAs were compared to WGS. A score for genomic instability, derived from the total number of 0.5 Mb CNAs detected by LINE1-PCR, was calculated for the 17 OAC samples and 8 blood control samples. The CNA detection rate of LINE1-PCR was 89% for CNAs covering > 0.5Mb when compared to WGS. The score for genomic instability was able to distinguish OAC samples from the control samples (mean CNA score of tumour samples and control samples: 64.5 (range 4-162) and 4.25 (range 0–8.0), respectively; AUC: 0.91). The tumour samples expressing low CNA scores (n=3) also revealed few CNAs according to WGS. The preparation for all samples from tissue collection to sequencing submission took 3.5 hours and required a minimum DNA input of 1-2ng for archival tissue and 0.5ng for frozen tissue. The costs per sample for the entire workflow are an estimated €17.

Conclusions: LINE1-PCR provides a robust and simple method for the detection of genomic instability. Its ability to accurately detect CNAs at a comparable resolution as WGS and to give an overall index of genomic instability, whilst being cheaper and faster than conventional methods, makes the technique attractive for clinical use. Further work will involve its application to premalignant Barrett's oesophagus and other (pre)malignant diseases associated with genomic instability.

Hospital of diagnosis affects the probability of curative treatment for oesophageal and gastric cancer in The Netherlands; a nationwide study

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Introduction: In the Netherlands, surgical treatment for oesophageal cancer has been centralized in expert centres, while the centralization of gastric cancer surgery is ongoing. In contrast, the diagnosis of oesophageal and gastric cancer is often made in hospitals where these surgical procedures are not performed. The aim of this study was to assess whether the hospital of diagnosis affects the probability of undergoing a potentially curative treatment for oesophagogastric cancer and its impact on overall survival. Methods: All patients with potentially curable oesophageal (cT2-4a, N0-3, M0-M1a) or gastric cancer (cT1-4a, cN0-2, cM0) diagnosed between 2005 and 2013 were selected from the Netherlands Cancer Registry (NCR). Multivariable multi-level logistic regression was used to examine the probability to receive curative treatment according to the hospital of diagnosis. Furthermore, the effect of the hospital of diagnosis on overall survival was examined by using multivariable Cox regression analysis. Results: A total of 16682 patients with potentially curable oesophagogastric cancer diagnosed in 91 hospitals was included. The observed proportion of oesophageal cancer patients that underwent potentially curative treatment (surgery or definitive chemoradiotherapy) ranged from 43 to 82%(P<0.01) between hospitals of diagnosis. After multivariable adjustment for patient- and tumour-related characteristics this percentage ranged from 49% to 76% (P<0.01). Among gastric cancer patients, the percentage of patients that underwent surgery ranged from 53% to 84% (P<0.01) between hospitals of diagnosis and after multivariable adjustment for patient- and tumour-related characteristics this percentage ranged from 57% to 78% (P<0.01).Multivariable Cox regression analysis showed that oesophageal and gastric cancer patients diagnosed in hospitals with a low probability of referral for potentially curative treatment had a worse overall survival compared with patients diagnosed in hospitals with a high probability of referral (respectively HR=1.12 and HR=1.20; P<0.01).
Conclusion: The large variation in probability of receiving a potentially curative treatment between hospitals of diagnosis, including its negative impact on survival, indicates that the quality of clinical treatment decision making and subsequent referral need attention. Regional multidisciplinary tumour boards may help to improve adequacy and uniformity of selecting and referring oesophageal and gastric cancer patients for curative treatment.

Serum Human Epididymal protein 4 (HE4) as biomarker for the differentiation between epithelial ovarian cancer and ovarian metastases of gastrointestinal origin

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About 5-15% of all malignant ovarian tumors are metastases from other malignancies such as gastrointestinal tumors, breast cancer or melanoma. Also other gynecological tumors can metastasize to the ovaries. It is crucial to differentiate between primary epithelial ovarian cancer (EOC) and ovarian metastases because different treatment is required. The clinical value of Human Epididymal secretory protein 4 (HE4) as a serum biomarker in primary ovarian cancer has been established. The use of HE4 in the differentiation between primary ovarian cancer and ovarian metastases from other malignancies has never been investigated. Therefore, we performed a retrospective study. HE4, CA125 and CEA were measured in 192 patients with EOC (n=147) or ovarian metastases (n=40). Univariate and multivariate logistic regression analyses were done. Sensitivity, specificity and area under the curve (AUC) were calculated for all markers and ratios hereof using receiver operating characteristics methodology. Median serum HE4 concentration was significantly higher in patients with EOC compared to patients with ovarian metastases (431 pmol/L vs 68 pmol/L, $p<0.001$). HE4 and CEA were independent factors in differentiating between EOC and ovarian metastases (both $p<0.001$) while CA125 was not ($p=0.33$). The $HE4^{2.5}$/CEA ratio demonstrated the highest discriminative value (ROC-AUC 0.94) compared to HE4, CEA, CA125 or CA125/CEA ratio (0.88, 0.78, 0.80 and 0.89 respectively) and showed a specificity of 82.5% at set sensitivity of 90% in discriminating EOC from ovarian metastases.
In conclusion, HE4 can be used in combination with CEA to make the distinction between EOC and ovarian metastases from gastrointestinal origin.

HE4 immunohistochemistry in ascites for the differentiation between ovarian cancer and gastrointestinal malignancies

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An accurate cytological or histological diagnosis of ovarian cancer is required before initiation of primary treatment. In the majority of cases, diagnosis can be based on clinical, histological and imaging studies. However, an overlap in features with other non-gynecological malignancies often occurs. Therefore, specific immunohistochemistry panels are used for further determination of the tumor origin. HE4 has been shown to be a sensitive and specific marker for ovarian cancer in serum, and to be of value in the differentiation between ovarian cancer and ovarian metastases of gastrointestinal (GI) tumors. In this study we evaluated the value of HE4 immunostaining of ascites for the differentiation between epithelial ovarian cancer and other adenocarcinomas. In total, we collected 123 cell blocks of cytology specimens that were all stained with HE4. After HE4 staining eight slides were excluded because of the lack of tumor cells (n=5) or a lack of definitive pathological diagnosis (n=3). Of the remaining 115 slides, there were 44 cytology samples from ovarian cancer, 47 from gastric cancer and 24 from colorectal cancer. Both men and women were included. Among the 44 ascites samples of ovarian cancer, 40 (91%) serous adenocarcinomas, mostly high grade, were HE4 positive. The four negative tumors were a clearcell carcinoma, a low grade serous adenocarcinoma, an undifferentiated adenocarcinoma and a neuroendocrine carcinoma. In contrast, in gastric cancer only 25% (n=12) of samples stained positive for HE4 of which the majority was a diffuse type adenocarcinoma (n=10). Twenty-one percent (n=5) of colorectal cancer ascites samples were HE4 positive; four intestinal type and one mucinous adenocarcinoma. There was no difference in HE4 staining between gender. In conclusion, HE4 is an useful addition to the current panel of immunohistochemistry markers for the diagnosis of serous ovarian cancer and for the differentiation from GI-derived adenocarcinomas.

Effectiveness and safety of transarterial embolization in patients with liver metastases of a neuroendocrine tumour

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Introduction: Transarterial embolization (TAE) is an effective treatment for liver metastases from neuroendocrine tumour (NET). It reduces arterial blood flow to the tumour resulting in ischemia and necrosis. In this single centre study the effectiveness and safety of TAE was evaluated. Patients and Methods: Patients with histological confirmed gastro-entero-pancreatic NET with liver dominant metastases were retrospectively investigated. Adverse events, tumour response, dec in symptomatic carcinoid syndrome and overall survival were evaluated. Results: A total of 30 patients (15 male, median age 61,5 years), underwent 47 TAE procedures between 2009 and 2014. The primary NET site was ileum (n=16; 53.3%), colon (n=6; 20%), pancreas (n=1; 3.3%), lung (n=1; 3.3 %) and unknown (6; 20%). Almost all patients (97%) received octreotide treatment for symptomatic NET, prior to TAE. Twenty two patients (73.3%) were also diagnosed with extrahepatic metastases. The median time from primary metastatic NET diagnosis to first TAE was 36.5 months. After TAE procedures a transient elevated level of bilirubin, gamma GT, ASAT, ALAT and LDH was seen in all patients. Two patients had major TAE related complications. No TAE related death occurred. CT scan was performed 1 and 3 month after TAE; 80.9% of the patients had a decrease of neuroendocrine liver metastases volume. This decrease was significantly higher when liver metastatic involvement before TAE was <50%. There was a significant decrease in chromogranin A both 1 and 3 months after TAE (p=0.001 and p=0.017,resp.). Of the 30 patients who had a carcinoid syndrome before TAE, 88% had a decrease in clinical symptoms at 1 month follow up and 69.6% at 3 months follow up. Sixteen patients underwent 2 or 3 TAE procedures for progression of carcinoid symptoms. The overall survival at 1-year follow up was 86.7%.
Conclusion: TAE is a relative safe treatment for liver metastasized NET which can be done multiple times within 1 patient. It reduces carcinoid syndrome in the majority of patients and shows a significant reduction in tumour marker. Radiological decrease rate is significantly higher in patients who have <50 % liver involvement.

Mismatch repair deficiency in radiotherapy- and chemotherapy-associated colorectal cancer

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Hodgkin lymphoma (HL) survivors who were treated with infradiaphragmatic radiotherapy and/or high dose procarbazine have an approximately 5-fold increased risk to develop colorectal cancer (CRC) compared with the age-matched general population. The mechanism behind the transformation of normal colonic mucosa into CRC after exposure to radiotherapy or chemotherapy remains unknown. This study aims to provide insight into the development of treatment-induced CRC by evaluating the histopathological and molecular characteristics of treatment-induced CRC. Formalin-fixed paraffin-embedded (FFPE) material from CRCs diagnosed in HL survivors was requested through the Nationwide Pathology Database (PALGA). Histopathological revision and immune-histochemical staining for mismatch repair (MMR) proteins were performed. Microsatellite stability status (pentaplex PCR) and CpG island methylator phenotype (CIMP, multiplex ligation-dependent probe amplification) status were assessed in all CRCs. Microsatellite instable (MSI) CRCs were additionally evaluated for promoter methylation of MMR genes. FFPE material of 51/64 (80%) cases was obtained, including 3 cases with 2 synchronous CRCs. The median age at CRC diagnosis was 57 years (range 30-79), 65% were male and the median latency between HL and CRC was 22 years (range 7-39). 13/54 (24%) CRCs were MSI and loss of staining was displayed for MLH1 and PMS2 (5/13) or MSH2 and MSH6 (7/13). One MSI tumor showed normal levels of all four MMR proteins. MLH1 promoter methylation was found in 3 MSI CRCs that showed loss of MLH1 and PMS2 protein staining. One MSS tumor showed loss of PMS2 staining; all the other MSS tumors stained positive for the four MMR proteins. 21/53 CRCs were CIMP (Ogino 5/8 gene positivity). The incidences of MSI and CIMP did not vary between different treatment groups (RT alone, procarbazine alone or RT + procarbazine).
In this study we demonstrated a high frequency of MSI among radiotherapy- and chemotherapy-associated CRCs, which surprisingly cannot be explained by promoter hypermethylation. Normal tissue and tumor DNA sequencing of MLH1, PMS2, MSH2 and MSH6 is in progress.

Accuracy of preoperative diagnosis and surgical management of patients with pancreatic cysts

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Optimal preoperative diagnosis of pancreatic cysts improves decision making. In premalignant pancreatic cysts, surgery prevents malignant progression. However, the natural history of pancreatic cysts is not well characterized and cysts with dysplasia do not always develop invasive malignancy. Therefore, it is unclear in which patients the benefits of surgery outweigh the risks. The aim of our study was to determine the accuracy of the preoperative diagnosis in patients with pancreatic cysts who underwent resection and to evaluate the proportion of patients in whom surgery was retrospectively justified. From our prospective database (2006-present) of patients with pancreatic cysts, we extracted all patients who underwent pancreatic surgery. The decision for surgical treatment was made in our multidisciplinary pancreatic and hepatobiliary meeting based on the international guidelines (Tanaka et. al 2012 and Del Chiaro et al. 2013). Surgery was considered justified for cysts with high-grade (HG) dysplasia or invasive malignancy, neuroendocrine tumors (NET), solid pseudopapillary neoplasm (SPN) and for symptomatic cysts (i.e. recurrent pancreatitis, weight loss or abdominal pain likely caused by the cyst). From the 113 patients who underwent resection, data were incomplete for 3 patients. Therefore 110 patients were included in our analysis (median age 62.5 years (IQR 48.75-71), 58% female). Patients underwent surgery median 3 months (IQR 2-6) after identification of the cyst. Only 11 patients (10%) were referred for surgery after initial surveillance, because of suspicion of malignancy (8%) or presence of symptoms (2%). Preoperative classification of the type of cyst was correct in 71% of patients and in 86% of patients the correct differentiation between benign and (pre)malignant was made. In hindsight, surgery was justified in 46% of patients: resection of a neoplastic pancreatic cyst with invasive malignancy (22%) or HG dysplasia (5%), pancreatic malignancy (7%), SPN (4%), NET (2%), acinar cell carcinoma (1%), sarcoma of the stomach (1%) or a symptomatic cyst (5%). In the remaining 54% of patients surgery could be seen as overtreatment: resection of a premalignant cyst without HG dysplasia or invasive malignancy in 42% and of a pancreatic cyst with no malignant potential in 13%.
Conclusion: In most patients with pancreatic cysts preoperative differentiation between benign and (pre)malignant is correct. Nevertheless, when following the current guidelines, overtreatment is inevitable.

Preoperative biliary drainage in patients undergoing pancreatoduodenectomy in The Netherlands

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Objective: As demonstrated by a recent Dutch randomized controlled multicenter trial[1], patients presenting with obstructive jaundice in periampullary tumors with bilirubin levels below 250 µmol have a higher rate of complications after preoperative biliary drainage (PBD) as compared to early surgery without PBD. Therefore, the preferred treatment in these patients is currently early surgery without PBD. The current study investigated the adherence to these recommendations by analyzing patients operated for suspected periampullary tumors regarding PBD. Furthermore, reasons for PBD prior to pancreatoduodenectomy in the Netherlands were analyzed. Methods: A retrospective multicenter cohort study in patients undergoing pancreatoduodenectomy for suspected pancreatic and periampullary malignancy in 2013 and 2014. Data were collected from seven Dutch high-volume hospitals (≥20 procedures/year). Patient characteristics, preoperative procedures and postoperative outcomes were extracted from hospital charts. Reasons for PBD were recorded and the use of plastic PBD was further analyzed. Differences between groups were analyzed using chi-square tests. Time differences were examined for statistically significance using Mann-Whitney U test. Results: Of 609 patients undergoing pancreatoduodenectomy, 401 (66%) presented with preoperative obstructive jaundice, of which 263 (66%) underwent PBD. A plastic stent was used in 70% of patients undergoing PBD and in 19% a metal or metal-covered stent (11% missing). The rate of PBD varied from 58.8%-77.2% between centers (p=0.005). The rate of plastic-stent-PBD varied from 32% to 63% (p=0.003). In 64% of these plastic-stent-PBD patients the procedure was performed prior to referral to a pancreatic center. Cholestasis was the most commonly mentioned reason for plastic-stent-PBD (70%). However, in 44% of these patients the bilirubin level was below 250 µmol prior to PBD and in only 32% bilirubin level was above 250 µmol (24% missing). Severe complications occurred in 51% of the patients undergoing PBD by plastic stent, compared to 55.3% of patients undergoing metal-stent-PBD and 464% of patients without PBD, p=0.451.
Conclusion: About half of the patients presenting with obstructive jaundice still underwent PBD prior to surgery using a plastic stent. There is a clear practice variation between pancreatic centers, although most stents are placed in referring hospitals. Optimizing logistics in the referral for pancreatic surgery and expending the awareness of early surgery without PBD as the preferred treatment might result in improvement in care.

Prognostic value of pretreatment tumor extent in patients treated with neoadjuvant chemoradiotherapy plus surgery for esophageal or junctional cancer

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Purpose: An update of the TNM staging system is needed for esophageal or junctional cancer, suited for the era of neoadjuvant treatment. More specifically, an improved estimation of the pretreatment stage is needed. Here we introduce and evaluate a novel method of determining pathological pretreatment tumor extent, based on the location of viable tumor cells and regressional changes in the resection specimen. Methods: Patients were included with potentially curable esophageal or junctional cancer, who were treated with neoadjuvant chemoradiotherapy plus surgery between 2003 and 2011. Pretreatment pathological T-stage (prepT-stage) and N-stage (prepN-stage) were estimated based both on the extent of regressional changes (e.g. fibrosis, mucous lakes, keratin pearls, and/or foreign body giant cell reactions) and on the presence of residual tumor cells in the resection specimen. Interobserver agreement of prepT-stage and prepN-stage was determined between three pathologists. PrepT-stage, prepN-stage, pretreatment clinical T-stage and N-stage (cT-stage and cN-stage) and posttreatment pathological T-stage and N-stage (ypT-stage and ypN-stage) were determined and their prognostic performance was compared using the likelihood ratio chi-squared test (LR χ^2) and the Akaike information criterion (AIC). PrepN-stage and ypN-stage were combined to determine the effect of nodal sterilization on prognosis. Results: The intraclass correlation (ICC; i.e. overall concordance) for prepT-stage and prepN-stage was 0.69 (substantial) and 0.84 (near perfect), respectively, while the ICC for ypT-stage and ypN-stage was 0.92 and 0.93 (both near perfect), respectively. Goodness of fit for cT-stage was better than for prepT-stage, (LR χ2 6.02 vs. 5.31 and AIC 792.7 vs. 793.4, respectively), while goodness of fit for prepN-stage was better than for both cN-stage and ypN-stage (LR χ^2 23.88 vs. 12.22 vs. 23.15 and AIC 776.8 vs. 788.5 vs. 777.5, respectively). Patients without residual disease in resected nodes (ypN0), could be separated based on prepN-stage, into a better prognosis group (prepN0) and worse prognosis group (prepN+) (five year overall survival 68% vs. 51%, p=0.019).
Conclusion: The pretreatment pathological T-stage (prepT-stage) and N-stage (prepN-stage) can be reliably estimated. Pretreatment pathological N-stage predicts overall survival better than posttreatment pathological N-stage. Patients who have pretreatment nodal involvement, but become node-negative after nCRT have a worse survival compared to patients without pretreatment nodal involvement. Especially prepN-stage should be considered as a new parameter in the next edition of the TNM classification system.

Chronic anaemia due to gastrointestinal bleeding, when do gastroenterologists transfuse? A nationwide survey in The Netherlands

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Transfusion strategies have become more restricted over the past decade. Most guidelines state that in patients with chronic anaemia, symptoms are the most essential trigger to transfuse. This might differ for acute gastrointestinal bleeding, where prophylactic transfusions might be necessary at an earlier stage. Our hypothesis is that decision-making for transfusion among gastroenterologists varies considerably. Our aim was to identify preferences and predictors of transfusion decision-making in chronic anaemia due to gastrointestinal bleeding.To assess this aim, a computerized adaptive choice-based conjoint survey was administered between February and April of 2015 to gastroenterologists in the Netherlands. The survey quantified the relative importance of 7 patient attributes, including haemoglobin levels, haemoglobin stability, age, iron indices, the presence of anaemia related symptoms, cardiovascular comorbidities and the number of transfusions in the past half year. Triggers of transfusion were studied in a scenario of chronic anaemia due to bleeding from angiodysplasias. A total of 112 gastroenterologists completed the survey (response rate = 28%; mean age = 47 years; 24% women). Of 7 attributes assessed, absolute haemoglobin level was the most important incentive of transfusions, accounting for 42% of decision-making, followed by age (15%), haemoglobin stability (12%), anaemia related symptoms (10%), cardiovascular comorbidities (10%), the number of transfusions in the past half year (6%) and iron indices (5%). An inflection point was found at a haemoglobin level of 5.0 mmol/L, above this value gastroenterologists would not prescribe a transfusion. The average part-worth utilities for the different haemoglobin levels (6.0-7.0 mmol/L, 5.0-5.9 mmol/L, 4.0-4.9 mmol/L, < 4.0 mmol/L) were respectively -161 (SD 23), -27 (SD 19), 55 (SD 20), and 133 (SD 23).In conclusion, independent of all other factors absolute haemoglobin level was found as the most important clinical factor to transfusion decision-making. In contrast, the presence of anaemia related symptoms and iron indices was of relatively little importance. This contradicts the current Dutch transfusion guideline.

Quality of life in coeliac disease: do patients and doctors agree?

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This aim of this study was to compare the self-assessed coeliac disease (CD) specific health related quality of life (HRQoL) in a group of children and young adults with CD with the assessment provided by the physician during a regular follow-up consultation for CD at the outpatient clinic. Patients with CD for >1 year and with ages <25 years were included in this cross-sectional study. In addition to the regular clinical consultation for disease control, they completed a CD-specific HRQoL questionnaire, the CDDUX. The physicians were unaware of the purpose of the study or the results of the CDDUX. Primary outcome: the agreement between the physician-assessed and self-assessed HRQoL. Secondary outcomes: patient variables predicting a discrepancy between assessments, or a lower HRQoL. The physician-assessed and self-assessed HRQoL were discrepant in 40/70 cases (K=0.093), all with a poor self-assessed HRQoL. The discrepancy occurred significantly more frequently in patients with a disease duration <9 years (32/40 children with discrepant assessments were diagnosed less than 9 years ago versus 17/30 in whom the physician-assessed HRQoL was correct, p=0.001) and in females (35/40 children with discrepant assessments were girls versus 16/30 in whom the physician-assessed HRQoL was correct, p=0.001). Both factors predicted a poorer HRQoL.
Conclusions: During regular consultations, the physicians did not recognize a self-assessed poor HRQoL in 51% of the patients. They overestimated the HRQoL of children and young adults with CD during disease follow-up. This is consistent with previous studies in other chronic diseases. Our study supports the implementation of a self-assessed CD-specific HRQoL measurement in the clinical follow-up of the patients.

Illness perceptions, mediated by coping, impact on quality of life, activity and work impairment in patients with IBD

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Living with IBD is complex and patients often experience severe impairment in different life domains. Psychological factors, such as illness perceptions and coping, may play a role in adjustment to IBD. Illness perceptions are personal perspectives that patients create when they try to make sense of and obtain control over a disease. Besides, illness perceptions predict how patients cope and, therefore, impact on quality of life. Different domains of illness perceptions are: Illness identity (symptoms patients associate with IBD), Chronic time (expected duration of IBD), Cyclical time (expected cyclical symptomatology of IBD), Consequences (effects of IBD on the patients' lives), Personal control (perceived control over IBD), Treatment control (perceived efficacy of a treatment), Coherence (understanding of IBD) and Emotional representations (emotions resulting from IBD). Applying the Common Sense Model (CSM), the present study investigated the impact and interplay of illness perceptions and coping on a variety of outcomes in a sample of patients suffering from IBD. In a cross-sectional design, 211 patients (73% Crohn's disease, 40% male, mean age 42.9±12.9 years) attending an outpatient clinic completed questionnaires assessing illness perceptions (IPQ-R), coping (CORS), mental and physical health (SF-36) as well as daily activity and work impairment (WPAI). Multiple regression analyses yielded a number of significant direct associations of illness perception dimensions with illness outcomes. For example, Consequences had a significant negative association with physical health ($p < .01$) and a positive association with activity and work impairment ($p < .05$). Emotional representations ($p < .001$) had a negative and Coherence ($p < .05$) had a positive significant association with mental health. Additionally, multiple mediation analyses with bootstrapping revealed a number of significant indirect associations between illness perceptions and illness outcomes via coping. Consequences, Personal control and Coherence were significant indirectly associated with mental and physical health as well as activity impairment through the use of the negative coping strategy 'decreasing activity'. Illness perceptions and coping were shown in this study to have an important impact on quality of life and adjustment to IBD. Gastroenterologists should be aware of this impact and should pay careful attention to exploring, understanding, and, if maladaptive illness perceptions seem present, addressing patients' perceptions of IBD. Assessing illness perceptions, therefore, is part and parcel of quality health care.

Brain involvement in quiescent Crohn's disease patients with fatigue – a pilot study

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Crohn's disease (CD) is characterized by an increased level of pro-inflammatory cytokines, which is called systemic inflammation. Previous studies suggest that systemic inflammation can contribute and accelerate brain diseases, and thereby hypothesized that systemic inflammation possibly have effects on the brain. Although in other chronic diseases such as Rheumatoid Arthritis (RA) structural brain changes have been shown, no research have been performed to evaluate the effect of systemic inflammation on the cerebral mechanism in CD patients. The aim of our study was to assess brain involvement in quiescent CD patients with fatigue using quantitative Magnetic Resonance Imaging (MRI) and relate these data to neuropsychological scores. Multiple MRI acquisitions were used to assess cerebral abnormalities in 20 quiescent CD patients with fatigue (defined with at least 6 points out of an 11-point numeric rating scale (NRS)) compared with 17 healthy age and gender matched controls. Furthermore, neuropsychological data was obtained by conducting the Hospital Anxiety and Depression Scale (HADS) and Neuropsychological Inventory (NPI) including the different domains global cognitive functioning, memory and executive functioning. CD patients encountered significantly more depressive symptoms ($p < 0.001$). Results of the NPI showed differences between the groups regarding the different domains; the memory ($p = 0.007$) and executive domain ($p = 0.02$) showed significant differences, while the score on global cognitive functioning in CD patients was reduced but not significantly ($p = 0.08$). Generally, CD patients made more mistakes and more time was needed to complete the NPI. Subcortical atrophy was found in the Amygdala, Accumbens, Putamen, Thalamus and the right Caudate, right Hippocampus and right Pallidus ($p < 0.01$). Reduced Glutamate + Glutamine units ($p = 0.02$) and ratios to total Creatine ($p = 0.02$) were found compared with controls. Furthermore significant increased Cerebral Blood Flow (CBF) values ($p < 0.05$) were found in CD patients (53.08 ± 6.14 ml/100g/min) compared with controls (47.60 ± 8.62 ml/100g/min).

To our knowledge, this pilot study is the first one that investigates the changes in the brain due to Crohn's Disease with multiple MRI techniques. Preliminary evidence for structural brain changes is shown, enhancing the hypothesis that systemic inflammation could influence the brain and the association with cognitive tests results. This is the first step in the understanding of the brain involvement in CD patients.

Multiplex serum analysis in newly diagnosed and still untreated Crohn's Disease patients

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Background: Crohn's disease is a complex and dynamic disease in which the initiation and perpetuation of inflammation is driven by a complex network of cytokines and chemokines produced by a diverse set of cells. The cytokine/chemokine profiles may thus provide valuable insights into the ongoing mechanisms of disease and even hold value as diagnostic and/or prognostic purposes. However, our current knowledge of cytokines/chemokines in CD has been limited to analyses of small sets of these proteins in murine models or patients with prolonged disease duration on immunosuppressive therapy. This study concerns an analysis of a broad-spectrum of cytokines and chemokines in the serum of newly diagnosed, untreated CD patients. This may help identify better starting points in predicting disease course at diagnosis. Methods: Serum samples were prospectively collected at the time of the primary diagnosis of CD and before the start of immunosuppressive therapy. Disease location and behaviour were assessed according to the Montreal classification. Disease activity was assessed by endoscopy using the Simple Endoscopy Score in CD (SES-CD). Serum levels of 36 analytes (mostly cytokines and chemokines) were measured by Luminex-based multiplex testing. Results: Twenty CD patients were included. Data from a validated healthy cohort were used as control. In CD patients, IL-6, IL-8, IL-18, chemokine (C-C motif) ligand 2 (CCL-2) and vascular cell adhesion molecule 1 (VCAM-1) were 5-10 fold higher when compared to healthy controls. When comparing severe disease activity (SES-CD>19) with mild disease activity (SES-CD 4-10), a difference was found in the serum value of matrix metalloproteinase-1 (MMP-1) between mild and severe disease activity ($p=0.039$). CCL2, CCL5, TNFR1, TNFR2, MMP1, soluble IL2-receptor (sIL2r) and S100 calcium-binding protein A8 (S100A8) levels were associated with the disease location (Montreal classification). IL-37 levels were higher ($p=0.003$) in patients with penetrating disease behaviour, when compared to non-stricturing and non-penetrating disease. In CD patients with perianal fistula (n=5), VCAM-1 was lower ($p=0.013$) than in patients without perianal fistula.

Conclusion: This study identified potential distinctive cytokine and chemokine levels in serum correlating with disease activity, location, behaviour and perianal phenotype in newly diagnosed, yet untreated CD patients. Combining the immunologic phenotype and the clinical one, at primary diagnosis, could be more accurate in predicting course of disease and response to immunosuppressive therapy in CD patients.

Clinical consequences for white blood cell monitoring in IBD patients with a normal TPMT genotype

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Current guidelines in inflammatory bowel disease (IBD) strongly recommend prior to treatment thiopurine S-methyltransferase (TPMT) genotyping before thiopurine treatment to prevent life-threatening leucopenia. It is unclear which frequency of white blood cell (WBC) count monitoring is indicated in patients without a TPMT variant. A previous study in a subset of patients of the TOPIC-trial already identified week one metabolite levels, 6-mercaptopurine and concomitant use of biologicals as risk factors for leucopenia.[1] In this study, we focused on patients without three common genetic variants in the TPMT gene to see which factors predispose to leucopenia and see if the frequent routine laboratory controls are still indicated.We performed a post-hoc analysis of data from the TOPIC-trial ("Thiopurine response Optimization by Pharmacogenetic testing in IBD Clinics"). In this multicentre trial, 769 thiopurine naïve IBD patients were randomized for thiopurine dosing based on TPMT genotype (three common genetic variants were tested) versus standard thiopurine dosing. Patients were followed for 20 weeks and WBC was obtained at weeks 0, 1, 2, 4, 6, 8 and 20. Leucopenia was defined by leucocyte levels ≤ $3.0*10^9$/L and severe leucopenia by ≤ $2.0*10^9$/L. For this analysis, patients with a known TPMT variant (n=73) were excluded. Kaplan-Meier curves were used to illustrate time to leucopenia. Characteristics of patients with and without leucopenia were compared and multivariate analysis with a Cox-proportional hazard model was performed to identify factors associated with leucopenia. In the TOPIC-trial, 695 patients (90%) had no genetic variants in the TPMT gene. Leucopenia was reported in 49 patients (7%), with four patients (0.6%) having severe leucopenia. Median time to leucopenia was 56 days (IQR 28 -110 days). Leucopenia occurred in 30 patients (60%) in the first eight weeks of treatment. In eight patients (16%) leucopenia was complicated with an infection. Use of 6-mercaptopurine compared to azathioprine (Hazard ratio 2.68; 95% CI 1.52-4.75) and concomitant use of biologicals (Hazard ratio 2.07; 95% CI 1.03-4.16) were also identified as risk factors for leucopenia in patients with no TPMT variant. Despite an absence of genetic variants in the TPMT gene leucopenia is frequently observed in the first five months after starting a thiopurine, with most cases in the first two months. Since leucopenia can still be severe, current routine monitoring of WBC count is still indicated in this group.

Colorectal cancer risk in patients with both Lynch syndrome and inflammatory bowel disease

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Introduction: Lynch Syndrome (LS) and inflammatory bowel disease (IBD) are associated with an increased colorectal cancer (CRC) risk due to genetic (LS) and inflammatory (IBD) factors. Reported lifetime risks of CRC development for patients with LS range from 22 to 74%. IBD patients bear a 1.5 to 2 times greater CRC risk compared to the general population. The increased CRC risk has resulted in recommendations for surveillance and treatment in both patient groups. Although relevant for surveillance and treatment strategies, it is unknown whether CRC risk is further increased in patients that suffer from both LS and IBD. We therefore aimed to establish CRC risk in patients with both LS and IBD. Methods: We established a cohort of LS patients assembled from two LS referral centers in The Netherlands. Patients with confirmed mutations in the mismatch repair genes associated with LS, including MLH1, MSH2 (and EPCAM deletion-mediated MSH2 methylation), MSH6 or PMS2 mutations, were eligible for inclusion. We linked the established LS cohort to PALGA (Dutch Pathology Registry with nationwide coverage) to identify patients with both IBD and LS. Subsequently, we compared patients with both LS and IBD (cases) and LS patients without IBD (controls) by adopting a retrospective cohort study approach in order to establish CRC risk. Results: 15/1046 (1.4%) LS patients also carried a diagnosis of IBD, including 8 (53.3%) patients with ulcerative colitis (UC), 6 (40.0%) with Crohn's disease (CD) and 1 (6.7%) with indeterminate colitis. Disease extent in UC involved the total colon in 62.5% (5/8) and the left-sided colon in 37.5% (3/8). CD patients had either ileal involvement (50%, 3/6) or ileocolonic involvement (50%, 3/6). Despite a younger age at study inclusion in the case group (median 38.0 y versus 52.0 y, p=0.001), the rate of CRC development was not significantly different between cases (4/15, 26.7%) and controls (313/1045, 30.4%). The 4 cases developed CRC at a younger age compared to controls (median 36.0 y versus 46.0 y, p=0.042). However, cumulative CRC incidence was similar between both groups (p=0.124). All CRC patients in the case group concerned UC patients resulting in a higher cumulative CRC incidence for the UC subgroup (4/8, 46.4% at age of 38) compared to controls (313/1031, 7.0% at age of 38, p<0.001).
Conclusions: Patients with both IBD and LS developed CRC at a younger age compared to LS patients without IBD, although cumulative CRC incidence was similar. In our unique cohort, CRC only developed in patients with UC and LS. Patients with UC showed a higher cumulative CRC incidence compared to LS patients without IBD.

Reduction of anti-infliximab antibody formation in paediatric Crohn's patients on concomitant immunomodulators

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Objective: Evaluation of the effect of concomitant immunomodulator use on formation of antibodies to infliximab (ATI) in paediatric patients with Crohn's disease (CD) and the association of ATI appearance and loss of response. Methods: In this retrospective nationwide multicentre observational study we collected clinical and biochemical data of children diagnosed with CD treated with infliximab between 2009 and 2014. ATI formation was analysed with Chi-square test and time to ATI formation with Kaplan-Meier and log rank test. Loss of response was defined as need for either surgery or switch to other medical therapy than infliximab. Results: In total, 229 children were identified (138 men, median 25 months on infliximab). Eighty-six patients (38%) received continuous combined immunosuppression (CCI) with infliximab, 115 patients (50%) early combined immunosuppression (ECI) (median 6.2 months), followed by infliximab monotherapy, and 28 patients (12%) infliximab monotherapy (IFX). Overall 25 of 229 patients (11%) developed ATIs: 6 on CCI (7%), 11 on ECI (10%) and 8 on IFX (29%) after respectively 6, 25, and 11 months (median). Antibodies were measured in 162 patients (70.7%). The incidence of ATI formation was higher in patients receiving IFX compared to CCI (p=0.006) and ECI (p=0.01), while no significant difference was found between CCI and ECI (log rank overall 0.004). Sixteen out of 25 patients (64%) developing ATIs had loss of response, versus 32 of 204 patients (16%) without ATIs (p=0.0001, log rank 0.01). When focusing on the group early combined immunosuppression, 10 out of 80 patients (12.5%) developed ATIs when receiving less than 12 months combination therapy, compared to 1of 35 (2.8%) patients receiving more than 12 months combination therapy.
Conclusion: Combination therapy is superior to infliximab monotherapy as it significantly reduces antibody formation and loss of response in children with CD. Concerns about the lymphoproliferative risk of long-term use of thiopurines make that early combined immunosuppression for at least 12 months, followed by infliximab monotherapy, might be a safer and equally effective alternative to continuous combined immunosuppression. KEYWORDS: biological; infliximab, immunomodulator; antibodies; inflammatory bowel disease

Rectal enema of MSC spheroids alleviates experimental colitis

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Mesenchymal stromal cells (MSCs) have emerged as a promising therapeutic option for various diseases due to their immunomodulatory properties and ability to actively participate in tissue repair processes. However, these abilities are not intrinsic and therefore different strategies to induce and enhance their beneficial effects are currently under investigation. Recently, we observed that intraperitoneally injected MSCs settled as spherical shaped clusters, i.e. spheroids, onto the serosal fat surrounding the colon in experimental colitis. In the present study we assessed whether luminal administration of MSCs in spheroids has a therapeutic effect. We infused 200 or 800 in vitro generated MSC spheroids, each consisting of 2,500 MSCs, intraluminally in C57BL/6 mice with established dextran sulphate sodium (DSS)-induced colitis. Body weight was measured daily and disease score consisting of the presence of loose stool, visible faecal blood and macroscopic inflammation was determined at sacrifice. Endoscopy was performed to evaluate mucosal damage and subsequent healing. Mucosal cytokine levels were measured in the homogenates of distal colon by a cytometric bead array system. In addition, myeloperoxidase activity in the homogenates of distal colon was measured as an index for neutrophil infiltration. Furthermore, we counted the number of macrophages in the lamina propria of the distal colon. MSC spheroids alleviated DSS-induced colitis when given in an enema resulting in less body weight reduction (9.2% after treatment with 800 MSC spheroids versus 16.4% and 15.9% after treatment with 200 MSC spheroids and PBS-treated mice, respectively; both $p = 0.02$), a lower endoscopic activity score and lower disease activity scores at sacrifice, related to the dose of MSC spheroids infused. Mucosal cytokine levels of interleukin-6 and interferon-gamma as well as numbers of macrophages and neutrophils in the distal colons were decreased particularly after intraluminal infusion of the high dose MSC spheroids.
Conclusion: Intraluminally infused MSC spheroids promote mucosal wound healing and attenuate experimental colitis, accompanied by less phagocytes and proinflammmatory cytokines in the mucosa.

Clinical and endoscopic predictors of neoplastic progression for risk-stratification in Barrett's oesophagus surveillance: a multi-centre community based prospective cohort study.

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The absolute risk to develop esophageal adenocarcinoma (EAC) from Barrett's esophagus (BE) is low, however, once diagnosed it is an often fatal disease. Aim of this study was to assess the risk of neoplastic progression in BE and identify endoscopic and clinical predictors for neoplastic progression, to enable risk-stratification in BE patients and improve current surveillance strategies. In 2003 a prospective surveillance study was initiated in 6 community-based hospitals, coordinated by a tertiary BE referral center. Patients with known BE identified using the Dutch pathology registry (PALGA) and patients newly diagnosed with BE were asked consent to enter a prospective surveillance program. Exclusion criteria were no intestinal metaplasia, history of EAC and prevalent high-grade dysplasia (HGD)/EAC (defined as diagnosed at index endoscopy or within 6 months thereafter). All surveillance endoscopies were scheduled and performed according to international guidelines, using Seattle protocol biopsies. In each center, all endoscopies were performed by a single endoscopist. Two research nurses coordinated the surveillance program and attended all procedures. Questionnaires for demographic and clinical information were completed at each endoscopy. Endoscopic and histological data from gastroscopies prior to inclusion were collected retrospectively. Endpoint of the study was progression to HGD/EAC during endoscopic follow-up. Univariate logistic regression was used to identify predictors of progression. 1003 patients were included: 726 men, mean age at diagnosis 55 ±12 yrs, median BE length 3 cm (IQR 1-5), median surveillance time 7.1 yrs (IQR 3.4-11.1). A total of 52/1003 patients (5%) developed HGD (24/52) or EAC (28/52); median time to progression was 7.9 yrs (IQR 3.9-11.6). Annual risk of neoplastic progression was 0.64% per patient year. Presence of low-grade dysplasia (LGD) (OR 2.47, 95% CI 1.01-5.85)), age at base endoscopy (OR 1.03, 95% CI 1.00-1.05) and BE length (OR 1.22 per cm, 95% CI 1.13-1.31) were predictive for neoplastic progression. Male sex (OR 1.29, 95% CI 0.67-2.49), BMI (OR 1.05, 95% CI 0.99-1.10), PPI use (OR 0.67,95% CI 0.38-1.17) and total surveillance time in years (OR 1.04,95% CI 1.13-1.31) were not predictive for progression.

Conclusion: This large prospective BE surveillance cohort is unique for its community based setting (avoiding referral bias) and long term optimal surveillance circumstances. We found an annual risk of progression to HGD/EAC of 0.64% per patient year. BE length, presence of LGD and age at diagnosis were predictive for neoplastic progression and may therefore be used to tailor surveillance in BE patients.

The surgical outcome of one-year colorectal cancer screening in a single centre academic hospital: much surgery for benign lesions

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In January 2014 the Netherlands started a national screening programme for colorectal cancer using an immunochemical faecal occult blood test. The aim of screening for colorectal cancer is to improve prognosis by early detection and treatment of colorectal cancer and its precursor lesions. Our aim is to assess the short-term surgical outcome of patients referred to the surgical team via the screening programme. Data from patients in an academic centre who underwent colorectal surgery following a positive faecal occult blood test and subsequent colonoscopy in the period 2014-2015 were prospectively collected in a database. One year after the first screening cohort, ninety-eight patients were discussed in a multi disciplinary team of whom eighty-five patients underwent a colorectal resection. Using the principles of shared decision making four patients with pT1 carcinoma did not undergo surgery. At time of diagnosis eight patients were found to have metastatic disease and one patient was referred for transanal endoscopic microsurgery.
The pathology reports showed that seventy-four patients were treated for colorectal cancer (75%). However, in eleven patients (11%) no malignancy was found in the resected specimen. One patient died of aspiration and three patients developed anastomotic leakage for which they required re-operation. This analysis shows that a significant proportion of patients referred for surgery by the national screening programme undergo surgery for a benign lesion. Colorectal cancer surgery bares a substantial risk of postoperative complications, as is shown in our data. Remarkably the surgical treatment is not a registred part of the screening programme. In 2009, the nationwide Dutch Surgical Colorectal Audit (DSCA) was initiated by the Association of Surgeons of the Netherlands to monitor, evaluate and improve colorectal cancer care. However, patients undergoing surgery for benign lesions are excluded from this registry. In order to assess the potential risks of overtreatment in colorectal cancer screening, registration of the surgical management of these patients is mandatory since one out of nine patients undergo colorectal surgery in the absence of a malignancy. We expect that our results will contribute to the continuing debate on the (cost)-effectiveness and risks of colorectal screening.

Comparison of OC-sensor and FOB-Gold in population based colorectal cancer screening based on FIT

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Colorectal cancer (CRC) screening programs are implemented worldwide and many are based on fecal immunochemical testing (FIT). Data on participation and yield over consecutive rounds of FIT screening are limited. In the Netherlands, pilot-studies have been performed with OC-sensor (Eiken, Japan) and the recently started nationwide program is using FOB-Gold (Sentinel, Italy). Yet, little evidence is available about how these two tests compare. The aim of this study was to evaluate the two tests on usability, participation and diagnostic yield. The comparison was performed in the 4th round of a population-based FIT-screening cohort in the Netherlands. Demographic data of randomly chosen 20.000 individuals between 50-74 years living in the Amsterdam and Rotterdam regions of the Netherlands were obtained from municipal population registers (March 2014 to December 2014). All invitees in previous biennial rounds were re-invited except for those who tested positive in earlier rounds or those passing the upper age limit. Invitees were randomized to receive an OC-sensor or an FOB-Gold test. The test was considered positive if hemoglobin concentration was ≥10 µg Hb/g feces. Participation rate, positivity rate, and positive predictive value (PPV) for advanced neoplasia (AN) and CRC were calculated. The detection rate was defined as the proportion of participants being diagnosed with AN. Overall 19290 eligible persons (median age 61, IQR 57-67; 48% males) were invited; 9669 invitees received the OC-sensor and 9621 received the FOB-Gold test: 62.4% returned the OC-sensor and 62.5% the FOB-Gold test (n.s.). Inappropriate use of the test or unanalyzable tests occurred in 0.7% invitees using the OC sensor vs. 1.9% invitees using FOB-Gold test ($p < 0.001$). For OC-sensor, 7.9% were positive (95% CI: 7.2-8.6), compared to 6.5% for FOB-Gold (95% CI: 5.8-7.1; p=0.002). The PPV for AN in the OC-sensor group was 31.2% (95% CI:27.1-38.5), versus 31.9% in the FOB-Gold group (95% CI: 27.2-38.0). The detection rate was slightly higher for OC-sensor 2.2%, than for the FOB-Gold 1.9% (n.s.). Conclusion: In this fourth round of biennial population based FIT-screening, both FITs OC-sensor and FOB-Gold seemed comparable for participation rate and positive predictive value. Significant differences between the tests were found on unanalyzable tests, with more additional FOB-Gold tests needed to be sent to invitees due to inappropriate use, and positivity rate, resulting in more colonoscopies to be performed for a positive OC-sensor.

Diagnostic risk factors for colorectal cancer in patients with serrated polyposis syndrome: a multicentre cohort study

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Serrated polyposis syndrome (SPS) is characterized by multiple serrated polyps (SP) throughout the colon and accompanied by an increased life-time risk of colorectal cancer (CRC). SPS is diagnosed based on clinical criteria, which includes a very heterogeneous group of patients with a wide variation in CRC risk. We aimed to assess CRC risk factors in a large cohort of patients with SPS and to evaluate the risk of CRC during surveillance. Patients were retrospectively enrolled from 7 centers in the Netherlands and 2 in the United Kingdom. Data were retrieved from medical charts, pathology and endoscopy reports. Anonymized data were collected in a centralized database. Criteria from the World Health Organization of 2010 were used to diagnose SPS. Patients that only fulfilled WHO criterion 2, with inflammatory bowel disease and/or a known hereditary CRC syndrome were excluded from analysis. Multivariate logistic regression was used to calculate adjusted risk factors for CRC. Incidence rate and cumulative risk were calculated to evaluate the risk of CRC during surveillance after resection of all lesions >5mm. In total 435 patients with SPS were included for analysis. The mean age at diagnosis was 58 years (SD 14), 49% were male and 57% of patients had a history of smoking. Of all patients, 27% fulfilled WHO criterion 1, 41% WHO criterion 3 and 32% WHO criteria 1&3. In total 128 (29%) patients were diagnosed with CRC. Patients with ≥1 SP with dysplasia (OR 2.1; 95%CI 1.3-3.3), ≥1 advanced adenoma (OR 2.3; CI 1.5-3.7) and patients that fulfilled WHO criteria 1&3 (OR 1.7; CI 1.1-2.6) were at increased risk of developing CRC, adjusted for age at SPS diagnosis. SPS patients with a history of smoking had a decreased risk of developing CRC (OR 0.4; CI 0.2-0.6). A total of 261 patients underwent surveillance after clearing of all lesions >5mm with a median follow up of 3.2 years (IQR 1.6-5.7) and a median interval between colonoscopies of 1.2 years (IQR 1.0-1.6). In total 3 patients were diagnosed with CRC during surveillance (incidence rate: 2.9 events/1000 person years; CI 0.7-7.9. 5-year cumulative risk: 1.7%; CI 0.2-3.3). Conclusion: SPS patients with advanced adenomas, SPs containing dysplasia and/or a combined WHO 1&3 phenotype are at an increased risk of developing CRC. Patients with a history of smoking show a markedly lower risk of developing CRC, possibly due to the fact that the pathogenesis of disease is different in these patients. The risk of developing CRC during surveillance and after clearing of all relevant lesions is lower than earlier assessed in literature, which may reflect a more mature multi-centre cohort with less selection bias.

Prospective, quantitative assessment of pain reduction and quality of life improvement following vascular intervention in chronic mesenteric ischemia; a pilot study.

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There is a lack of knowledge of the quantitative effects of treatment of chronic mesenteric ischemia (CMI) on pain and health related quality of life (HRQOL). This prospective pilot-study was designed to determine the mid-term change of pain intensity and HRQOL in CMI treatment. Patients with mesenteric ischemia, treated with endovascular intervention for luminal stenosis or endoscopic release of the diaphragm crux in celiac artery compression syndrome between August and December 2013 were enrolled. For pain we used the visual analogue scale for pain intensity (VAS-PI, graded 0-100 mm). For HRQOL we used the 36-item Short Form Health Survey (SF-36). All parameters were obtained before and three months after the intervention. We included 29 patients; mean age 55,9 years (SD 20.0), 79.3 % female. Single-vessel (n=7), multi-vessel (n=15) atherosclerosis and celiac artery compression syndrome (n=7). The VAS for pain improved following treatment: for the average pain from median 60 (IQR: 48 – 72) to 2 (IQR: 0 – 40, $p < .001$), for postprandial pain from median 74 (IQR: 63–84) to 2 (IQR: 0–40, $p < .001$), and for post-exercise pain from median 63 (IQR: 50–80) to 4 (IQR: 0–30, $p < .001$). The number of painful days per week decreased from median 7 days (IQR: 5–7) to 1 day (IQR 0–6,8 days, $p < .001$). The HRQOL measured with SF-36 improved for five of eight dimensions (role physical (p .005), bodily pain (p .001), vitality (p .004), social functioning (p .001) and mental health (p .001)) and the both component summary scores (physical (p .008) and mental (p .009)). Conclusion: This pilot study showed that three months after vascular intervention for CMI the pain is significantly reduced and quality of life for patients improved. The magnitude of effects exceeded our expectations, but larger studies with longer follow-up are needed to confirm this observation.

Preoperative episodic abdominal pain characteristics are not associated with clinically relevant improvement of health status after cholecystectomy

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Cholecystectomy is the therapy of first choice in patients with uncomplicated symptomatic cholecystolithiasis, but it remains unclear which patients truly benefit in terms of health status improvement. Patients generally present with episodic abdominal pain of varying frequency, duration and intensity. We designed a prospective multi-centre cohort study to assess whether characteristics of abdominal pain episodes are determinants of clinically relevant improvement of health status after cholecystectomy. Patients of ≥ 18 years of age with uncomplicated symptomatic cholecystolithiasis subjected to cholecystectomy were included. Patients received a structured interview and a questionnaire consisting of the visual analogue scale (VAS, ranging 0-100) and gastrointestinal quality of life index (GIQLI) preoperatively. The GIQLI was also administered at 12 weeks after cholecystectomy. Logistic regression analyses were performed to determine associations. Questionnaires were sent to 262 and returned by 166 (63.4 per cent) patients (128 females, mean(s.d.) age at surgery 49.5(13.8)). A clinically relevant improvement of health status was reported by 131 (78.9 per cent) patients. The median(i.q.r.) frequency, duration and intensity of abdominal pain episodes were 0.38 (0.18-0.75) a week, 4.00 (2.00-8.00) hours and 92 (77-99), respectively. None of the characteristics were associated with a clinically relevant improvement of health status at 12 weeks after cholecystictomy.Characteristics of episodic abdominal pain do not predict benefit of cholecystectomy in terms of improvement in overall health status. The timing of optimal benefit of this procedure for patients with uncomplicated symptomatic cholecystolithiasis remains unclear and to be individualized.

A comparison of IBS patients according to healthcare setting

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The majority of patients with Irritable Bowel Syndrome (IBS) is treated in primary care and only a subset of patients is referred for specialized treatment by a gastroenterologist. Limited data are available on differences between patient characteristics according to referral status. The aim of this study was to evaluate clinical, psychosocial and demographic factors between IBS patients according to healthcare setting. We hypothesized that patients referred to secondary/tertiary care have higher symptom severity scores, a lower quality of life (QoL) and more psychosocial comorbidities than patients from primary care. This study was part of a larger prospective cohort study. Participants (ROME-III) between the age of 18 and 75 years were recruited via a secondary/tertiary care clinic and general practices in the same area. Subjects had no evidence of organic disease. All participants were asked to complete questionnaires on demographics and lifestyle. In addition, they filled in the Gastrointestinal Symptom Rating Scale (GSRS), the Hospital Anxiety and Depression Scale (HADS), the State-Trait-Anxiety Inventory (STAI) and the Short Form health survey (SF-36). A binary logistic regression analysis was performed. In total, 291 secondary/tertiary care and 87 primary care IBS patients were included. Secondary/tertiary care patients reported significantly higher symptom scores for abdominal pain ($p<0.05$) and diarrhea ($p<0.005$), had a higher percentage of increased depression scores ($p<0.05$) and lower physical health related QoL ($p<0.01$) compared to primary care patients. Moreover, the secondary/tertiary group contained significantly younger patients ($p<0.001$), fewer smokers ($p<0.005$) and consumed less alcohol ($p<0.05$). Overall, this referral group reported a shorter total duration of symptoms ($p<0.001$). No differences were found in anxiety scores and IBS subtypes. Logistic regression analysis found that female gender (OR 0.46;CI 0.24-0.91), age (OR 0.97, CI 0.95-0.98), duration of symptoms (OR 0.98;CI 0.96-0.99) and physical health related QoL (OR 0.96; 0.94-0.99) are lower in the secondary/tertiary group versus the primary group. Conclusions: Male gender, younger age, shorter duration of symptoms and lower QoL are associated with secondary/tertiary care setting. These patients also report higher symptom and depression scores. Results from studies performed in secondary/tertiary care setting can therefore not be generalized to primary care patients.

Food intake in IBS patients versus healthy controls: a case-control study

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The majority of irritable bowel syndrome (IBS) patients report their symptoms to be triggered by food and therefore exclude specific food items from their diet without professional guidance. However, evidence on inadequate food intake in IBS patients is limited. Moreover, little is known about habitual dietary intake in IBS patients. We aimed to evaluate the habitual dietary intake in IBS patients and to compare it to the diet in controls. We collected data on participant characteristics, gastrointestinal symptoms and habitual dietary intake of IBS patients (Rome III criteria) and healthy controls. All participants completed the self-administered food frequency questionnaire, resulting in the generation of data on 19 nutrients and 139 food items based on the Dutch food composition table. Data analysis was corrected for energy intake, age and gender. In a first analysis of 98 IBS patients and 159 controls we found that the diet of IBS patients was significantly lower in fiber ($p=0.01$) and fructose ($p=0.001$) content. In addition, the intake of 11 specific food items was found to be significantly different. IBS patients, for example, had a decreased consumption of apples ($p<0.001$) and pasta ($p<0.01$), whereas the consumption of soda ($p<0.01$) was increased compared to controls. Moreover, analysis of food items combined into relevant food groups showed a significant lower intake of whole meal bread ($p<0.05$) and a significant higher intake of processed meat ($p<0.01$) in IBS patients versus controls. We did not find significant differences in macronutrient composition. In conclusion, we showed that the habitual diet of IBS patients differs from the diet of controls in specific nutrient content as well as in the content of specific food items. These findings support the idea that IBS patients tend to alter their food intake, possibly based on their self-perceived food intolerances. Our next step is to further investigate the associations between food intake and IBS subtypes as well as gastro-intestinal complaints.

Developing a Patient Reported Outcome Measure for symptom assessment in Irritable Bowel Syndrome by Experience Sampling Method: outcome of focus groups

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There is growing need to assess symptoms of irritable bowel syndrome (IBS) and factors contributing to its disease burden, including the patient's perspective. Retrospective end-of-day questionnaires are currently used to assess abdominal pain and other gastrointestinal (GI) symptoms in IBS. However, these assessments are influenced by recall bias and psychosocial factors. The Experience Sampling Method (ESM) may overcome these limitations by assessing symptoms randomly and repeatedly in the natural state and environment of the subject. An explorative study from our group demonstrated more accurate measurements of IBS symptom patterns when comparing ESM to retrospective questionnaires. Aim of the current study was to develop a short and balanced patient-reported outcome measure (PROM) for symptom assessment using ESM. Focus group interviews were conducted to obtain patient input in order to develop an ESM questionnaire, to be administered randomly ten times a day. Participants, meeting Rome III criteria for IBS, were asked to suggest every item they consider relevant. Additionally, they were instructed to criticize the ESM questionnaire that was used in our previous pilot study. After reaching saturation, the relevance of the items identified was discussed by experts in neurogastroenterology. Four focus group meetings were organized with 4-8 participants attending each session (76.5% female; 54 ± 12.6 years). These revealed seven relevant categories: abdominal pain, defecation, provoking and relieving factors, dietary factors, other gastrointestinal symptoms, mood and psychological factors, comorbidities and medication use. This resulted in 43 specific questions, which experts reduced to 25 in order to decrease the time and burden associated with completing the questionnaire. In this study, a PROM, suitable for momentary symptom assessment in IBS, was developed. This tool has the advantage to assess possible triggers (e.g. psychological, dietary and environmental factors) in addition to GI symptoms and reflects the patient's perspective of relevant items. ESM needs further validation in a large, heterogeneous IBS population and offers a suitable approach to identify daily life triggers for symptoms with potential implications for individualized therapeutic strategies.

Retrograde rectal cleansing is a moderate effective long-term treatment in patients with constipation or fecal incontinence

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Retrograde rectal cleansing (RC) is one of the few options left in patients with chronic constipation or fecal incontinence when life-style measures, medical therapy and biofeedback exercises fail. We wanted to establish the success rate of RC, quality of life and predictive factors for success in these patients. In this retrospective study, all patients who started with RC between January 2010 and March 2014 in our hospital were sent questionnaires in August 2014 concerning actual RC, SF-36, Fecal Incontinence Quality of Life (FI-QoL) and the Beck Depression Inventory (BDI). When no response was obtained, patients were approached by telephone about their actual RC status and received a second mailing. All patients who continued therapy were contacted by telephone in May 2015 for further follow-up information. Fifty-four patients (41 women, 13 men) were included, and 41 (76%) responded to the questionnaires. Median time of complaints was 4 years. Classification in 3 groups was made: 40 (74%) constipation, 7 (13%) incontinence and 7 (13%) both constipation and incontinence. Underlying disorders were characterized as neurological problems (23), previous gynaecological (11), colorectal (8), urological (5), anal (3), and other abdominal surgery (15). Thirty- two (59%) patients stopped RC after a median time of 6 months because of ineffectiveness and side effects. Twenty-two (41%) continued with a median time of 12 months. Seventeen patients (31%) were still performing RC in May 2015, prolonging median continuation to 21 months. No significant difference was found between patients who stopped and continued RC concerning age, sex, defecation disturbance, underlying disorders, anorectal function, colon-transit time, FI-QoL or BDI-score. SF-36 showed that patients still using rectal cleansing have more energy and are less fatigued than patients who discontinued therapy and underwent subsequent surgical procedures. Other areas showed no difference.
Conclusions: RC is a moderate effective alternative in patients with chronic constipation or fecal incontinence who are not responding to medical therapy and biofeedback exercises. There is a high dropout in the first months, but a substantial rate of continuation in the period hereafter. In this study, no significant difference in demography or medical history was found between patients who stopped and continued. Those who continue RC perform better on SF-36 subscale energy and fatigue.

Diagnosis and management of eosinophilic esophagitis: a 13-year retrospective review in a pediatric population in the Netherlands.

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Eosinophilic esophagitis (EE) is a chronic, immune/antigen-mediated disease characterized clinically by symptoms related to esophageal dysfunction and histologically by eosinophil-predominant inflammation (>15 eosinophils per high power field). EE is increasing in incidence and prevalence, and is a major cause of gastrointestinal morbidity among children and adults. In young children the symptoms vary from frequent vomiting to food refusal as older children and adolescents present with refractory gastroesophageal reflux symptoms, dysphagia or even food impaction. In 2007, an international consensus recommendation was published, providing clinical and histopathologic guidance for the diagnosis and treatment of EE. The aim of our was to determine the diversity in diagnosis and management of EE in pediatric patients in the Netherlands in comparison to the international consensus recommendations. The medical records of 151 children younger than 18 years old with biopsy proven EE treated from 2000 to 2013 by pediatric gastroenterologists in the Netherlands were reviewed. Patient characteristics, clinical, endoscopic, and histologic findings were recorded and analysed using SPSS. EE diagnoses have risen from one in 2000 to 24 in 2013, the majority being diagnosed after 2008. 69% were male and the median age at diagnosis was 9.3 years (range 3 months to 18 years). In 67.5% symptoms of refractory GE reflux or dysphagia was the indication for endoscopy, in 18.5% was this even food impaction. In 74% macroscopic findings as granular mucosa, longitudinal furrows, white plaques and trachealization were present. In 51% the location (distal, mid, or proximal esophagus) of the biopsies were recorded and in 31% the average count of eosinophils per HPF was reported. The initial treatment consisted of, with or without a protonpump inhibitor, local (42%) or systemic (6%) corticosteroids, elemental or elemination diet (31%), a combination of diet and corticosteroids (15%) or no treatment (6%). The amount of endoscopies during the diagnostic process varied from 1 to 12 per patient.

Conclusions: eosinophilic esophagitis is increasingly diagnosed in the pediatric population of the Netherlands. The diagnostic process and treatment varies significantly. An even better recognition and more uniformity in the management of EE is necessary.

Effects of gut microbiota manipulation by antibiotics on plasma amino acid levels in obese subjects

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Gut bacteria have been implicated in the pathogenesis of metabolic disease and can alter the bioavailability of amino acids. Obesity and type 2 diabetes are associated with elevated systemic concentrations of aromatic and branched-chain amino acids (BCAA). Here, we investigated the effects of gut microbiota knock-down on arterial amino acid levels in humans. Obese male subjects (BMI 31.2±2.6kg/m^2, age 59±7y, HOMA-IR 4.5±0.2, n=38) with impaired fasting glucose and/or impaired glucose tolerance were included in a randomized double-blind placebo-controlled trial. Subjects were orally treated with either 1500mg/day amoxicillin (AMOX; broad-spectrum antibiotic), 1500mg/day vancomycin (VANCO; aimed at Gram-positive bacteria), or placebo (PLA; microcrystal cellulose) for 7 days. Before and after treatment, arterial concentrations of 21 amino acids were measured using liquid chromatography. All groups showed high base BCAA concentrations: 445.0±35.9µmol/L (VANCO), 423.3±42.7µmol/L (AMOX), and 440.6±44.7µmol/L (PLA), P=0.406. AMOX treatment specifically increased BCAA levels in comparison to PLA (464.3±60.7µmol/L vs. 434.6±66.5µmol/L; P=0.042), whilst VANCO treatment did not (441.9±30.3µmol/L; P=0.867). Within treatment groups, concentrations of isoleucine (one of the BCAA) increased significantly upon both AMOX (from 68.4±8.1µmol/L to 79.3±10.9µmol/L; P=0.003) and VANCO treatment (from 70.3±7.7µmol/L to 78.3±9.6 µmol/L; P=0.001), but not in the PLA group (from 75.6±10.5µmol/L to 78.1±12.3µmol/L; P=0.305). Besides, arginine concentrations increased significantly only upon AMOX treatment (from 89.9±20.1µmol/L to 101.5±21.2µmol/L; P=0.025). Other amino acids were not affected by any treatment.

In conclusion, the broad-spectrum antibiotic AMOX increases plasma BCAA concentrations in obese subjects with impaired glucose tolerance. Currently ongoing analyses will shed light on the nature of the gut microbiota alterations provoked by AMOX in relation to these specific amino acid aberrations, parameters of insulin sensitivity, as well as substrate metabolism.

Starting enteral nutrition at target rate is more efficient than a supervised nutrition protocol in increasing nutritional adequacy in critically ill patients.

D.M.P.H. Miseré, D.C.J.J. Bergmans, M.C.G. van de Poll, Maastricht University Medical Center, Maastricht, The Netherlands

Objective: Providing sufficient energy and protein to ICU patients has been shown to prevent infectious complications and improve clinical outcome. Despite existing recommendations, widespread suboptimal nutritional support has been reported, potentially leading tot malnutrition. The objective of this study was to assess current nutritional support practice in our ICU and to evaluate whether supervised implementation of two different nutrition protocols could improve the nutrition status of mechanically ventilated patients. MethodsWe retrospectively collected data from mechanically ventilated patients admitted in the ICU between January 2014 and march 2015. Patient files were reviewed for amongst others time of initiation of nutrition, time of reaching energy target, energy deficit and gastric residues. In addition we identified reasons for energy provision not meeting requirements. Prospectively we assigned a different nutrition protocol to each of our two ICU's and a researcher was appointed to monitor and adjust administration of nutrition. The protocols were drafted according to the ESPEN guidelines recommending gradual increment of delivery of enteral nutrition and the Canadian Clinical Nutrition guidelines recommending initiation of enteral nutrition at target rate. Results on energy provision were compared to the historical control group from the retrospective analysis reflecting standard care.Results In the historical control group nutrition (n=261) was started at a median of 13 hours (IQR = 4-22) after start of mechanical ventilation. 205 patients (78,5%) were being fed after 24 hours. Target rate was achieved at a median of 42 hours (IQR = 24-80) after start of nutrition. Only 69 patients (26,4%) were fed at target rate within 24 hours after start of nutrition. Hitherto we submitted 28 patients to a supervised nutrition protocol. This led to trend towards a decrease of the time until start of nutrition. This decrease however did not reach statistical significance (median 5 hours, IQR = 2,3-16,2, p=0.167 vs control, log-rank-test). Starting enteral nutrition at target rate did lead to a significant improvement in time between starting nutrition and reaching energy target (p=0.001 vs control, log-rank). When starting nutrition at target rate, no increase in gastric residual volume was seen compared to the control group. (p=0.62, 2-way ANOVA)ConclusionsAdequate provision of energy and protein in mechanically ventilated ICU patients can be achieved by starting enteral nutrition at target rate. This led to achieving energy and protein requirements significantly earlier without an increase in the occurrence of gastric residual volume.

Perioperative intravenous glutamine supplementation restores the disturbed arginine synthesis after open repair of an abdominal aortic aneurysm, a randomized clinical trial

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Background: Arginine plays an important role in many different pathways in multiple cell types and enhances the function of the immune system, which is important for recovery after surgical injury. Arginine is formed in the kidneys from its precursor citrulline, which in its turn is derived from glutamine in the intestines. It is known that arginine plasma levels are diminished after clamping of the aorta during surgery, probably due to renal ischemia and reperfusion. We hypothesized that arginine production is diminished after ischemia-reperfusion injury by clamping and that parenteral glutamine supplementation, the ultimate source for de novo synthesis of arginine, may compensate this impaired arginine synthesis. Objective: The aim of this study was to quantify arginine production from glutamine after renal ischemia caused by clamping of the aorta in patients with or without glutamine supplementation. Design: Two groups of patients who underwent clamping of the aorta during open abdominal aortic surgery were randomized to this open label randomized clinical trial, to receive a perioperative supplement of intravenous alanyl-glutamine (0,5 g·kg-1·day-1) (group A, n=5) or no supplement (group B, n=5). Metabolism and conversion of glutamine, citrul and arginine were analyzed one day after surgery using stable isotopes and tracer methodology. Results: Mean whole-body plasma turnover rates of glutamine, citrulline, and arginine in group A were significantly higher compared to B, by almost twice the amount ($p<0,01$). Estimated whole body citrul synthesis from plasma glutamine was significantly higher in group A compared to B ($p<0,01$, 4,8±0,7 versus 1,6±0,3 µmol·kg-1·h-1, representing 85% and 56% of whole body citrul turnover, respectively). Whole body arginine synthesis from plasma citrul was significantly higher in group A compared to B ($p<0,01$, 2,3±0,3 versus 0,96±0,1 µmol·kg-1·h-1, representing 40% and 35% of whole body citrul turnover, respectively). Likewise, whole body turnover of arginine from glutamine was higher in group A than in group B ($p<0,001$). Discussion: Glutamine and citrul are important sources for de novo arginine synthesis. Whole body plasma turnover and production of citrul and arginine are diminished after supra- or infrarenal clamping during aortic surgery compared to previous results of our group. This study shows that a perioperative supplement of glutamine enhances de novo production of citrul and arginine and neutralizes the inhibitory effect of ischemia-reperfusion injury.

Pediatric SBS in the Netherlands: a 25 year review

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Introduction: Massive bowel loss in pediatric patients remains a therapeutic challenge with high mortality. Those surviving the initial surgical intervention usually develop short bowel syndrome and require lengthy and costly treatment, often with months to years of hospitalization and parenteral nutrition. There is a lack of basic epidemiologic knowledge of this disease as nationwide figures are unavailable. We sought to identify and analyse all pediatric SBS patients occurring over the last 25 years in the Netherlands. Our aims were 1. to generate nationwide epidemiology data for this disease and 2. To investigate the results and outcome of paediatric short bowel syndrome in the Netherlands. Methods: We identified all pediatric patients (<17 years at time of diagnosis) developing SBS between the 1st of June 1987 and the 31st of May 2012, using patient records from all Pediatric Surgical Centers in the Netherlands (Amsterdam, Groningen, Maastricht, Nijmegen, Rotterdam, Utrecht). Inclusion occurred based on verified massive small bowel loss (≤25% of vital small bowel remaining as stated in the operative reports). We collected multiple clinical parameters such as gestational age and weight in neonates, remaining small bowel length, operations, TPN duration, hospitalization length, mortality. Results: We identified 210 children (120 boys, 90 girls) with SBS over 25 years in the Netherlands. Mean intestinal length 27.8cm (R0-90cm), Mean percentage small bowel length 17.4%(R 0-25.4%). Mean length jejunum 15cm(R0-70), and ileum 2cm(R0-70). 196 patients developed massive bowel loss below the age of one year of age. 103 of these young children died, of which 59 within 1 week. Mean gestational age: AD34 4/7(R172-294); Mean birth weight: 2000grams(R650-4780). Aetiology: NEC 82, Atresia 47, volvulus 53, gastroschizis 16, other 16 (some patients multiple diagnosis). Mean hospitalization duration 92 days (R 1-3200).14 children older than one year of age developed massive bowel loss. 8 died, of which 5 died within 1 week following resection. Mean age children >1 year: 4.6years(R1.2-16.8years). Aetiology: volvulus 8, other 6. Mean hospitalisation duration 90 days(R1-1570). Conclusion: Following massive small bowel loss, half of pediatric patients do not survive. The majority of deaths occur within the first week after operation and resection. Both neonates and older children that do survive require lengthy hospitalisation and TPN treatment due to SBS manifestation; usually persisting for many years. Incidence and prevalence is low; but the impact on patient and hospital resources remains high.

pInformatie over de expositie treft u op de volgende bladzijden aan.

Lijst van standhouders, najaarscongres NVGE, 8 en 9 oktober 2015 te Veldhoven

G = Genderzaal, D = Diezezaal, K = Kempenhal	*Standnummer*
AbbVie B.V.	K1
Almirall B.V.	G15
Aquilant Nederland B.V.	G11
Boston Scientific Nederland B.V.	D1
Bristol Myers Squibb	G6
Cablon Medical b.v.	D5
Cobra Medical B.V.	G12
Cook Nederland B.V.	D8
Covidien	D9
Crohn en Colitis Ulcerosa Ver. Nederland	K18
Dr. Falk Pharma Benelux B.V.	G1
Endotechniek	K5
Erbe Nederland B.V.	G8
Ferring B.V.	K8
FMH Medical B.V.	D12
Fresenius Kabi Nederland B.V.	D4
GE Healthcare B.V.	G10
Gilead Sciences Netherlands B.V.	K4
Hitachi Medical Systems	K6
Hospira Benelux BV	G5
IKproductions	K21
Janssen-Cilag B.V.	G3
Lamepro B.V.	K11
Medical Measurements Systems B.V.	K16
Mediphos Medical Supplies B.V.	D7
Medivators B.V.	G9
Merck Sharp & Dohme B.V.	K3
Mermaid Medical	D10
Mundipharma Pharmaceuticals B.V.	G2
Norgine B.V.	G4
Olympus Nederland B.V.	K2
Pentax Medical	K7
RMS Medical Devices	K10
RVC B.V.	K9
Selinion Medical	K13
Skills Meducation B.V.	D3
Stichting MijnIBDcoach	K17
Stichting Opsporing Erfelijke Tumoren	K20
Stomavereniging	K19
Stöpler Instrumenten & Apparaten B.V.	D2
Surgical Technologies B.V.	G13
Synageva BioPharma Corp.	K12
Takeda Nederland BV	G7
Tramedico B.V.	D6
Van Vliet Medical Supply B.V.	G14
Vifor Pharma Nederland B.V.	D11
Will Pharma	K15
Zambon Nederland B.V.	K14

plattegrond expositie, in te voegen door drukkerij.

plattegrond Koningshof (zelfde als in boekje najaar 2014, in te voegen door drukkerij)

Nederlandse Vereniging voor Gastroenterologie

Aanmeldingsformulier lidmaatschap *(doorhalen wat niet van toepassing is)*

naam en voorletters		m / v
voornaam		geb. datum:
titel		
specialisme / functie		
doctoraal examen	neen / ja d.d.	zo ja, studierichting:
arts examen	n.v.t. / ja d.d.	
assistent i.o. voor		einde opleiding:
inschrijving MSRC	neen / ja d.d.	BIG registratie nr.
huisadres		
postcode en plaats		
telefoonnummer		
werkinstelling		
afdeling		
adres		
postcode en plaats		
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e-mail adres		
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Tevens wil ondergetekende zich aansluiten bij:

□ Sectie Gastrointestinale Endoscopie
□ Netherlands Society of Parenteral and Enteral Nutrition
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□ Sectie Experimentele Gastroenterologie
□ Sectie Kindergastroenterologie
□ Sectie Inflammatoire Darmziekten
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n.b. Aanvullende lidmaatschappen van secties zijn kosteloos

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Aanvullende informatie: De contributie van de Nederlandse Vereniging voor Gastroenterologie bedraagt € 50,00 per jaar.

Dual membership NVGE - ESGE

aanmeldingsformulier voor leden, ingaande 2016 van de Nederlandse Vereniging voor Gastroenterologie

Ondergetekende, lid van de Nederlandse Vereniging voor Gastroenterologie, geeft zich per 1 januari 2016 op voor het dual membership in combinatie met het lidmaatschap van de Sectie Gastrointestinale Endoscopie
(doorhalen wat niet van toepassing is)

naam en voorletters		m / v
voornaam		geb. datum:
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werkinstelling		
afdeling		
adres		
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Voordelen
- toegang tot de website van Endoscopy;
- informatie over nieuwe richtlijnen die door de ESGE worden opgesteld;
- kortingsmogelijkheden op door de ESGE georganiseerde activiteiten en workshops

Voorwaarden
- uitsluitend voor NVGE-leden in combinatie met het lidmaatschap van de Sectie Gastrointestinale Endoscopie (u wordt automatisch lid van de sectie, het sectielidmaatschap is kosteloos)
- alleen mogelijk bij afgeven van automatische incasso voor het innen van contributie NVGE *gelijktijdig* met het dual membership ESGE in januari 2016
- lidmaatschap geldt voor het hele jaar en wordt stilzwijgend verlengd
- aanmelden voor **15 december 2015**; opzeggen kan daarna steeds per kalenderjaar (voor 1 december) via het NVGE-secretariaat.

□ Hierbij machtig ik de penningmeester van de Nederlandse Vereniging voor Gastroenterologie om de verschuldigde contributie van het Dual Membership t.w. € 200,- (d.w.z. € 50,- contributie NVGE en € 150,- contributie ESGE) **met ingang van 2016** tot wederopzegging automatisch jaarlijks van mijn bankrekening af te laten schrijven.

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NEDERLANDSE VERENIGING VOOR HEPATOLOGIE

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naam en voorletters		m / v
voornaam		geb. datum:
titel		
specialisme / functie		
doctoraal examen	neen / ja d.d.	zo ja, studierichting:
arts examen	n.v.t. / ja d.d.	
assistent i.o. voor		einde opleiding:
inschrijving MSRC	neen / ja d.d.	BIG registratie nr.
huisadres		
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