Programma najaarsvergadering 9 en 10 oktober 2014
NH Conference Centre Koningshof Veldhoven

NEDERLANDSE VERENIGING VOOR GASTROENTEROLOGIE

Sectie Gastrointestinale Endoscopie
Netherlands Society for Parenteral and Enteral Nutrition
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 ledenvergaderingen donderdag:

Nederlandse Vereniging voor Gastroenterologie	9 oktober, 11.30 uur – Brabantzaal
NVMDL i.o.	9 oktober, 12.00 uur – Zaal 63-64
Nederlandse Vereniging voor Hepatologie	9 oktober, 15.00 uur – Baroniezaal

INHOUDSOPGAVE **pag**

Vrijdag 10 oktober 2014

Tijdstippen ledenvergaderingen vrijdag:

Nederlandse Vereniging van Maag-Darm-Leverartsen	10 oktober, 08.00 uur – Zaal 81-82-83
Sectie Inflammatoire Darmziekten	10 oktober, 14.00 uur – Brabantzaal

Belangrijke mededeling
over de aanwezigheid van farmaceutische industrieën

Aan alle deelnemers aan het najaarscongres op 9 en 10 oktober 2014

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 congres 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 9 en 10 oktober a.s. in NH Conference Center Koningshof te Veldhoven. Zoals gebruikelijk wordt ons congres vooraf gegaan door het cursorisch onderwijs op woensdag 8 oktober, waarvan u het programma aantreft op bladzijde 6 en 7.

Op donderdag 9 oktober zijn er in het Auditorium gedurende de dag meerdere symposia van de Nederlandse Vereniging van Gastrointestinale Chirurgie, deels in samenwerking met de Sectie Inflammatoire Darmziekten van de NVGE. In de Brabantzaal vindt in de middag een symposium plaats van de Nederlandse Vereniging voor Hepatologie over de nieuwe ontwikkelingen in de behandeling van Hepatitis C en aansluitend van de Sectie Gastrointestinale Endoscopie een symposium over de endoscopische behandeling van complicaties.
Daarnaast op donderdag vrije voordrachten van de Nederlandse Vereniging voor Gastro-enterologie, de Nederlandse Vereniging voor Gastrointestinale Chirurgie en de Nederlandse Vereniging voor Hepatologie in respectievelijk de Brabantzaal, de Parkzaal en de Baroniezaal.
Aan het eind van de middag vindt om 17.00 uur in de Brabantzaal de President Select sessie plaats, met aansluitend de uitreiking van de NVGE Gastrointestinale Research Award en een erevoordracht van de prijswinnaar.
Van 18.00 tot 18.30 verzorgt prof. dr. H.G. Gooszen een State of the Art Lecture getiteld: "De Stand van het Land" – Chirurgisch onderzoek op de weegschaal. Met deze voordracht wordt het programma van de donderdag afgesloten. In de avond zijn er geen lezingen meer inge-pland, zodat er gelegenheid is voor diner en ontspanning.

Ook op vrijdag, zoals tijdens het najaarscongres gebruikelijk, meerdere symposia.
De dag gaat van start met symposia van de Pancreatitis Werkgroep Nederland en de Sectie Neurogastroenterologie en Motiliteit in respectievelijk Auditorium en Baroniezaal. Daarna is er in de Brabantzaal een symposium van de Sectie Gastrointestinale Endoscopie rond de richtlijn Barrett. Aansluitend aan dit symposium zijn er zonderlinge video's te zien. Een herhaling na het succes van vorig jaar.

Nieuw zijn de Meet the expert sessies. In een kleine groep kunt u interactief casuïstiek bespreken over levercirrose en IBD die door de experts is voorbereid. Voorts kunt u op vrijdagochtend vrije voordrachten volgen van de Sectie Gastrointestinale Endoscopie, de Sectie Gastrointestinale Oncologie en de Sectie Neurogastroenterologie en Motiliteit. Aan het eind van de ochtend is er in het Auditorium een State of the Art Lecture getiteld "Surveillance, diagnosis and treatment of hepatocellular carcinoma: Current practice and future challenges", verzorgd door Dr. K.J. van Erpecum. Na de lunch is er een symposium rond de update van de richtlijn IBD, georganiseerd door de Sectie Inflammatoire Darmziekten.

In de Beneluxzaal wordt door de V&VN MDL een eigen programma met lezingen verzorgd, met na de lunch een keuze uit twee subsessies.

Dr. J.J. Keller, secretaris NVGE
Dr. K. van der Linde, bestuurslid

Woensdag 8 oktober 2014

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
Dr. J. Heisterkamp, chirurg, St. Elisabeth Ziekenhuis, Tilburg
Dr. P.J.F. de Jonge, aios MDL
Mevr. dr. A.M.J. Langers, MDL-arts, LUMC, Leiden
Dr. B. Oldenburg, MDL-arts, UMC Utrecht
Dr. J. Vecht, MDL-arts, Isala Klinieken, Zwolle
Dr. B.J. Veldt, MDL-arts, Reinier de Graaf Gasthuis, Delft
Dr. R.A. de Vries, MDL-arts, VUmc, Amsterdam
Dr. P.J. Wahab, MDL-arts, Rijnstate Ziekenhuis, Arnhem

Infectieziekten I v*oorzitter: Dr. A.M.J. Langers*

14.30 – 14.45 Helicobacter pylori en zijn gevolgen
Dr. R.A. Veenendaal, MDL-arts, LUMC, Leiden

14.50 – 15.05 Cholangitis en leverabces
Prof. dr. G. Kazemier, chirurg, VU medisch centrum, Amsterdam

15.10 – 15.25 Geel bij terugkeer uit de tropen
Dr. B.J. Veldt, MDL-arts, Reinier de Graaf Gasthuis, Delft

15.30 – 15.45 Hepatitis C: een therapeutische revolutie
Prof. dr. J.P.H. Drenth, MDL-arts, Radboudumc, Nijmegen

15.50 – 16.10 Pauze

Infectieziekten II v*oorzitter: Dr. P.J. Wahab*

16.10 – 16.25 Infecties bij de immunogesupprimeerde
Prof. dr. H.J. Metselaar, MDL-arts, Erasmus MC, Rotterdam

16.30 – 16.45 Acute infectieuze diarree bij reizigers en thuisblijvers
Prof. dr. J.M. Prins, internist-infectioloog, AMC, Amsterdam

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

16.50 – 17.05	Diarree na antibiotica *Prof. dr. E.J. Kuijper, medisch microbioloog, LUMC, Leiden*
17.10 – 17.25	SOA in de tractus digestivus *Prof. J.F.W.M. Bartelsman, MDL-arts, DC Klinieken Lairesse, Amsterdam*
17.30 – 18.00	Pauze

De moeilijke vragen - Voortgangstoets 2014

Voorzitter:	*Dr. R.A. de Vries*	
18.00 – 18.10	AIOS OOR AMC	Dr. Jaap Kloek
18.10 – 18.20	AIOS OOR EMC	Dr. Lieke Hol
18.20 – 18.30	AIOS OOR LUMC	Drs. Nynke Siegersma
18.30 – 18.40	AIOS OOR MUMC	Drs. Renske Deutz
18.40 – 18.50	AIOS OOR UMCG	Drs. Marijn Visschedijk
18.50 – 19.50	AIOS OOR UMCN	Drs. Bart Opsteeg
19.00 – 19.10	AIOS OOR UMCU	Drs. Romy Verbeek
19.10 – 19.20	AIOS OOR VUmc	Drs. Thijs Grasman
19.30	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 leverings-voorwaarden van toepassing. Informatie vindt u op de onderwijspagina van www.mdl.nl en www.nvge.nl.

Programma donderdag 9 oktober 2014

Donderdag	Brabantzaal	Baroniezaal	Auditorium	Parkzaal
09.00	Ontvangst en koffie	Ontvangst en koffie	Multidisciplinair symposium I – Werkgroep coloproctologie & Sectie IBD: 'Patient tailored behandeling van maligne linkszijdige colonobstructie' gevolgd door symposium II: 'IBD: chirurg of MDL-arts aan zet?' pagina 16	Ontvangst en koffie
09.30 - 11.30	Voordrachten MLDS, gevolgd door vrije voordrachten van de Nederlandse Vereniging voor Gastro-enterologie pagina 10 en 11	Vrije voordrachten Ned. Vereniging voor Hepatologie pagina 19		Vrije voordrachten Ned. Vereniging voor Gastrointestinale Chirurgie pagina 24
11.30 - 12.00	Ledenvergadering NVGE	Geen programma i.v.m. Ledenvergadering NVGE		Geen programma i.v.m. Ledenvergadering NVGE
12.00 - 13.00	Lunch in expositiehal	Lunch in expositiehal	Lunch in expositiehal	Lunch in expositiehal
13.00 – 15.00	Symposium 'Hepatitis C – nieuwe ontwikkelingen' pagina 13		Symposium III, Upper GI tumor werkgroep: 'Behandeling van het maagcarcinoom' pagina 17	Vrije voordrachten Ned. Vereniging voor Gastrointestinale Chirurgie pagina 26
15.00 - 15.30	Theepauze	Theepauze + ALV NVH	Theepauze	Theepauze
15.30 - 17.00	Symposium Endoscopische behandeling van complicaties pagina 13	Vrije voordrachten Ned. Vereniging voor Hepatologie (einde 16.30) pagina 22	Symposium werkgroep Bariatrie: 'Op het raakvlak tussen chirurgie en gastro-enterologie ' pagina 18	
17.00 - 17.30	President Select pagina 14			
17.30 - 18.00	Uitreiking Gastrointestinale Research Award 2014 pagina 15			
18.00 – 18.30	State of the art lecture Prof. dr. H.G. Gooszen pagina 15			
18.30 - 19.30	Borrel in expositiehal			
19.30 - 22.00	Diner Beneluxhal			
22.00 - 01.00	Borrel / Muziek in foyer			

Vrijdag 10 oktober 2014

Vrijdag	Brabantzaal	Baroniezaal	Auditorium	Parkzaal / Zaal 81
09.30 – 11.00	Vrije voordrachten sectie Gastrointestinale Endoscopie pagina 29	Symposium 'New upper GI motility tests: how clinically relevant are they?' pagina 38	Mini-symposium Pancreatitis Werkgroep Nederland pagina 33	
11.00 - 11.30	Koffiepauze	Koffiepauze	Koffiepauze	Koffiepauze
11.30 - 13.00	Minisymposium 'Richtlijn Barrett' pagina 30	Vrije voordrachten Sectie Neurogastroenterologie en Motiliteit pagina 38	Vrije voordrachten Ned. Vereniging voor Hepatologie pagina 34 State of the Art Lecture Dr. K.J. van Erpecum pagina 35	Meet the Expert sessies IBD: Parkzaal Levercirrose: zaal 81 pagina 40
13.00 – 14.00	Lunch expositiehal	Lunch expositiehal	Lunch expositiehal	Lunch expositiehal
14.00 – 16.00	ALV en richtlijnsymposium Sectie Inflammatoire Darmziekten pagina 32	Geen programma in deze zaal	Vrije voordrachten Sectie Gastrointestinale Oncologie pagina 35	
16.00 – 16.30	Afsluiting in expositiehal	Afsluiting in expositiehal	Afsluiting in expositiehal	Afsluiting in expositiehal

Vrijdag 10 oktober 2014 - programma V&VN MDL

Vrijdag	Beneluxhal	Parkzaal
10.00 – 12.15	Plenair ochtendprogramma V&VN MDL pagina 41	
12.15	Lunch in expo	
13.45 – 15.15	Parallel programma Endoscopie-verpleegkundigen pagina 42	Parallel programma Lever-/IBD-/Kliniek/voeding pagina 42
15.15	Einde programma	Einde programma

MLDS voordrachten **Brabantzaal**

09.00 Inschrijving en koffie

Voorzitters: J.J. Keller en J.Ph. Kuijvenhoven

Voordrachten in het Nederlands, spreektijd 10 minuten, discussietijd 5 minuten

09.30 Effectiveness of cognitive behavioural therapy on quality of life, anxiety and depression among patients with inflammatory bowel disease: a multi-centre randomised controlled trial (p. 44)

F. Bennebroek Evertsz'[1], M.A.G. Sprangers[1], P.C.F. Stokkers[2], R. Sanderman[3], C.L.H. Bockting[4], K. Sitnikova[1], C.Y. Ponsioen[5], J.F.W.M. Bartelsman[5], A.A. van Bodegraven[6], S. Fischer[7], A.C.T.M. Depla[8], R.C. Mallant[9], H. Burger[10], [1]Dept of Medical Psychology, Academic Medical Center, Amsterdam, [2]Dept of Gastroenterology, Sint Lucas Andreas Hospital, Amsterdam, [3]Dept of Health Psychology, University Medical Center Groningen, University of Groningen, Groningen, [4]Dept of Clinical Psychology, University of Groningen, Groningen, [5]Dept of Gastroenterology, Academic Medical Center, Amsterdam, [6]Dept of Gastroenterology and Hepatology, VU University Medical Center Amsterdam, Amsterdam, Dept of Internal Medicine, Geriatrics and Gastroenterology, ORBIS Medical Centre, Sittard- Geleen, [7]Dept of Medical Psychology, Slotervaart Hospital, Amsterdam, [8]Dept of Gastroenterology and Hepatology, Slotervaart Hospital, Amsterdam, [9]Dept of Gastroenterology and Hepatology, Flevo Hospital, Almere, [10]Dept of General Practice, University Medical Center Groningen, University of Groningen, Groningen, The Netherlands

09.45 Intestinal microbiota and colorectal cancer: Towards new prevention and screening strategies (p. 45)

A. Boleij[1], E.M. Hechenbleikner[2], R. Roelofs[3], S. Hourigan[4], I. Kato[5], H. Tjalsm[4], C.L. Sears[1,6,7], [1]Dept of Medicine, [2]Dept of Surgery, [4]Dept of Gastroenterology and [6]Dept of Oncology, Johns Hopkins University School of Medicine, Baltimore, MD, USA, [3]Dept of Laboratory Medicine, Radboud University Medical Center, Nijmegen, The Netherlands, [5]Karmanos Cancer Institute, and Dept of Pathology, Wayne State University School of Medicine, Detroit, MI, USA, [7]Sidney Kimmel Comprehensive Cancer Center, Johns Hopkins University School of Medicine, Baltimore, MD, USA

10.00 Vervolg sessie met NVGE abstracts, zie volgende bladzijde

Voordrachten Nederlandse Vereniging voor Gastroenterologie — Brabantzaal

Voorzitters: J.J. Keller en J.Ph. Kuijvenhoven

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

10.00 Females are better protected from gut injury during ischemia-reperfusion than males: sex matters (p. 46)

I.H.R. Hundscheid[1], J. Grootjans[2], D.H.S.M. Schellekens[1], J.P.M. Derikx[1], R.M. Van Dam[1], W.A. Buurman[1], K. Lenaerts[1], C.H.C. Dejong[1], [1]Dept of Surgery, Maastricht University Medical Centre and NUTRIM School for Nutrition, Toxicology and Metabolism, Maastricht, The Netherlands, [2]Dept of Gastroenterology, Brigham and Women's Hospital, Harvard Medical School, Boston, MA, USA

10.10 Intergenerational change in Helicobacter pylori colonization in children living in a multi-ethnic Western population (p. 47)

W.J. den Hollander[1,2], I.L. Holster[1], A.J. van Vuuren[1], V.W. Jaddoe[2,4,5], G.I. Perez-Perez[6], E.J. Kuipers[1,3], H.A. Moll[4], M.J. Blaser[6], [1]Dept of Gastroenterology and Hepatology, [2]The Generation R Study Group, [3]Dept of Internal Medicine, [4]Dept of Pediatrics and [5]Dept of Epidemiology, Erasmus University Medical Center, Rotterdam, The Netherlands, [6]Dept of Medicine and Microbiology, New York University Langone Medical Centre, New York, USA

10.20 Gastric juice composition and acid suppression in pediatric gastroesophageal reflux disease (p. 48)

R.J. van der Pol[1], M.J. Smits[1], T. Dekker[2], D.R. de Waart[3], L. Ravanetti[2], R. Lutter[2], M.A. Benninga[1], M.P. van Wijk[1], [1]Pediatric Gastroenterology, Emma Children's Hospital/ AMC, Amsterdam, [2]Dept of Respiratory Medicine and Experimental Immunology, Academic Medical Center, Amsterdam, [3]Tytgat Institute for Liver and Intestinal Research, Academic Medical Center, Amsterdam, The Netherlands

10.30 Practice, indication and predictive factors of second look colonoscopy in a screening population (p. 49)

E.J. Grobbee[1], A. Kapidzic[1], A.J. van Vuuren[1], M.E. van Leerdam[1], I. Lansdorp-Vogelaar[2], C.W. Looman[2], M.J. Bruno[1], E.J. Kuipers[1], M.C.W. Spaander[1], [1]Dept of Gastroenterology and Hepatology, Erasmus MC University Medical Center, Rotterdam, [2]Dept of Public Health, Erasmus MC University Medical Center, Rotterdam, The Netherlands

10.40 Buccal swabs are useful for human leukocyte antigen typing in celiac disease diagnostics (p. 50)

M.P.M. Adriaanse[1], A.C.E. Vreugdenhil[1], V. Vastmans[2], L. Groeneveld[2], S. Molenbroeck[2], W.A. Schott[3], C.E.M. Voorter[2], M.G.J. Tilanus[2], [1]Dept of Paediatrics & Nutrition and Toxicology Research Institute Maastricht (NUTRIM), Maastricht University Medical Center, Maastricht,[2]Dept of Transplantation Immunology and Tissue Typing, Maastricht University Medical Center, Maastricht, [3]Dept of Paediatrics, Atrium Medical Center, Heerlen, The Netherlands

10.50 Do children screened with fecal calprotectin have less negative endoscopies than those who did not undergo this screening? (p. 51)

A. Heida[1], G.A. Holtman[2], Y. Lisman-van Leeuwen[2], M.Y. Berger[2], P.F. van Rheenen[1], [1]Dept of Pediatric Gastroenterology, University Medical Center Groningen, [2]Dept of General Practice, University of Groningen, University Medical Center Groningen, The Netherlands

11.00 Dientamoeba fragilis and abdominal pain-related functional gastrointestinal disorders in children; a case-control study (p. 52)

J.J. Korterink[1], M. de Jong[2], M.A. Benninga[1], M. Hilbink[3], J.M. Deckers-Kocken[2], [1]Dept of Pediatric Gastroenterology & Nutrition, Emma Children's Hospital / Academic Medical Center Amsterdam, [2]Dept of Pediatrics, Jeroen Bosch Hospital, 's Hertogenbosch, [3]Jeroen Bosch Academy, Jeroen Bosch Hospital, 's Hertogenbosch, The Netherlands

11.10 Timing of intervention in infected necrotizing pancreatitis: an international multidisciplinary survey and case vignette study (p. 53)

J. *van Grinsven[1, 2], S. van Brunschot[3], O.J. Bakker[3], T.L. Bollen[4], M.A. Boermeester[5], M.J. Bruno[6], C.H.C. Dejong[7], M.G.W. Dijkgraaf[8], C.H.J. van Eijck[9], P. Fockens[1], H. van Goor[10], H.G. Gooszen[11], K. Horvath[12], K.P. van Lienden[13], H.C. van Santvoort[3], M.G.H. Besselink[5] for the Dutch Pancreatitis Study Group, [1]Dept of Gastroenterology and Hepatology, Academic Medical Center, Amsterdam, The Netherlands, [2]Dept of Research and Development, St. Antonius Hospital, Nieuwegein, The Netherlands, [3]Dept of Surgery, University Medical Center Utrecht, Utrecht, The Netherlands, [4]Dept of Radiology, St. Antonius Hospital, Nieuwegein, The Netherlands, [5]Dept of Surgery, Academic Medical Center, Amsterdam, The Netherlands, [6]Dept of Gastroenterology and Hepatology, Erasmus Medical Center, Rotterdam, The Netherlands, [7]Dept of Surgery, Maastricht University Medical Center, Maastricht, The Netherlands, [8]Clinical Research Unit, Academic Medical Center, Amsterdam, The Netherlands, [9]Dept of Surgery, Erasmus Medical Center, Rotterdam, The Netherlands, [10]Dept of Surgery, Radboud University Medical Center, Nijmegen, The Netherlands, [11]Dept of OR/Evidence Based Surgery, Radboud University Medical Center, Nijmegen, The Netherlands, [12]Dept of Surgery, University of Washington Medical Center, Seattle, United States, [13]Dept of Radiology, Academic Medical Center, Amsterdam, The Netherlands*

11.30 Algemene ledenvergadering Nederlandse Vereniging voor Gastroenterologie

12.00 Lunchbuffet in de expositiehal

Hepatitis C – nieuwe ontwikkelingen — Brabantzaal

Voorzitters: R.A. de Man en J.G.P. Reijnders

13.00 Acute hepatitis C: epidemiologie en behandeling
B.J.A. Rijnders, internist-infectioloog, Erasmus MC, Rotterdam

13.30 Chronische hepatitis C: lange termijn effecten van behandeling en risico op hepatocellulair carcinoom
A.J.P. van der Meer, aios MDL, IJsselland Ziekenhuis, Capelle a/d IJssel

14.00 Chronische hepatitis C: Nieuwe middelen
S.B. Willemse, MDL-arts, Academisch Medisch Centrum, Amsterdam

14.30 HCV 2014: Start u behandeling nu of wacht u tot morgen?
Prof. dr. A.I.M. Hoepelman, internist-infectioloog, Universitair Medisch Centrum Utrecht

14.50 Einde symposium

15.00 Ledenvergadering NVH in de Baroniezaal

Symposium Sectie Gastrointestinale Endoscopie — Brabantzaal

Voorzitters: F. van Delft en J.W. Poley

Endoscopische behandeling van complicaties

15.30 Endoscopische behandeling van complicaties van bariatrische chirurgie
Dr. M.J.M. Groenen, MDL-arts, Ziekenhuis Rijnstate, Arnhem

16.00 Endoscopische drainage van abcessen
Dr. R. Timmer, MDL-arts, St. Antonius Ziekenhuis, Nieuwegein

16.30 Endoscopische behandeling van complicaties van poliepectomieën
B.A.J. Bastiaansen, MDL-arts, AMC, Amsterdam

Voordrachten President Select — Brabantzaal

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

Voordrachten in het Nederlands, spreektijd 10 minuten, discussietijd 5 minuten

17.00 Quality of life of patients with rectal cancer treated by chemoradiation therapy alone and showing clinical complete response: a comparative study with patients treated by surgery (p. 54)

B.J.P. Hupkens[1], Martens[1,2], Belgers[3], Stoot[4], Buijsen[5], Beets[1], Breukink[1], [1]Dept of Surgery, Maastricht University Medical Center, Maastricht, [2]Dept of Radiology, Maastricht University Medical Center, Maastricht, [3]Dept of Surgery, Atrium Medical Center, Heerlen, [4]Dept of Surgery, Orbis Medical Center, Sittard, [5]Dept of Radiotherapy, Maastro Clinic, Maastricht, The Netherlands

17.15 Gut directed hypnotherapy in children with irritable bowel syndrome or functional abdominal pain (syndrome): a randomized controlled trial on self exercises at home using CD versus individual therapy by qualified therapists (p. 55)

J.M.T.M. Rutten[1], A.M. Vlieger[2], C. Frankenhuis[1], E.K. George[3], M. Groeneweg[4], O.F. Norbruis[5], W. Tjon a Ten[6], H. van Wering[7], M.A. Benninga[1], [1]Dept of Pediatric Gastroenterology, Emma Children's Hospital AMC, Amsterdam, [2]Dept of Pediatrics, St. Antonius Hospital, Nieuwegein, [3]Dept of Pediatrics, Medical Center Alkmaar, [4]Dept of Pediatrics, Maasstad Hospital Rotterdam, [5]Dept of Pediatrics Isala Clinics Zwolle, [6]Dept of Pediatrics Maxima Medical Center Veldhoven, [7]Deptof Pediatrics Amphia Hospital Breda, The Netherlands

17.30 Timing of cholecystectomy after mild biliary pancreatitis: a randomised controlled multicenter trial (p. 56)

D.W. da Costa[1, 5], S.A. Bouwense[2, 30*], N.J. Schepers[1, 10], M.G. Besselink[3], S. van Brunschot[4], H.C. van Santvoort[5], O.J. Bakker[6], T.L. Bollen[7], C.H. Dejong[8], H. van Goor[9], M.A. Boermeester[3], M.J. Bruno[10], C.H. van Eijck[11], R. Timmer[12], B.L. Weusten[12], E.C. Consten[13], M.A. Brink[14], M.B. Spanier[15], V.B. Nieuwenhuijs[16], H. Sijbrand Hofker[16], C. Rosman[2], A. Voorburg[17], K. Bosscha[6], P. van Duijvendijk[18], J.J. Gerritsen[19], J. Heisterkamp[3], I.H. de Hingh[20], B.J. Witteman[21], P.M. Kruyt[22], J.J. Scheepers[23], I. Quintus Molenaar[24], A.F. Schaapherder[25], E.R. Manusama[26], L.A. van der Waaij[27], J. van Unen[28], M.G. Dijkgraaf[29], B. van Ramshorst[5], H.G. Gooszen[30], D. Boerma[5] Namens de Pancreatitis Werkgroep Nederland. [1]Dept. of Research and Development, St. Antonius Hospital, Nieuwegein, The Netherlands, [2]Dept. of Surgery, Canisius Wilhelmina Hospital, Nijmegen, The Netherlands, [3]Dept. of Surgery, Academic Medical Center, Amsterdam, The Netherlands, [4]Dept. of Surgery, Twee Steden Hospital, Tilburg, The Netherlands, [5]Dept. of Surgery, St. Antonius Hospital, Nieuwegein, The Netherlands, [6]Dept. of Surgery, Jeroen Bosch Hospital, 's Hertogenbosch, The Netherlands, [7]Dept. of Radiology, St. Antonius Hospital, Nieuwegein, The Netherlands, [8]Dept. of Surgery, Maastricht University Medical Center, Maastricht, The Netherlands, [9]Dept. of Surgery, Radboud University Medical Center, Nijmegen, The Netherlands, [10]Dept. of Gastroenterology & Hepatology, Erasmus University Medical Center, Rotterdam, The Netherlands, [11]Dept. of Surgery, Erasmus University Medical Center, Rotterdam, The Netherlands, [12]Dept. of Gastroenterology, St. Antonius Hospital, Nieuwegein, The Netherlands, [13]Dept. of Surgery, Meander Medical Center, Amersfoort, The Netherlands, [14]Dept. of Gastroenterology, Meander Medical Center, Amersfoort, The Netherlands, [15]Dept. of Gastroenterology, Rijnstate Hospital, Arnhem, The Netherlands, [16]Dept. of Surgery, University Medical Center, Groningen, The Netherlands, [17]Dept. of Gastroenterology, Diakonessenhuis, Utrecht, The Netherlands, [18]Dept. of Surgery, Gelre Hospital, Apeldoorn, The Netherlands, [19]Dept. of Surgery, Medisch Spectrum Twente, Enschede, The*

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Prijsuitreiking — Brabantzaal

17.45 **Uitreiking van de NVGE Gastrointestinale Research Award 2014**
door de voorzitter van de jury, gevolgd door een ere-voordracht van de prijswinnaar

State of the Art Lecture — Brabantzaal

18.00 **"De Stand van het Land" - Chirurgisch onderzoek op de weegschaal**
Prof. dr. H.G. Gooszen, Radboud UMC, Nijmegen

18.30 Congresborrel expositiehal

19.30 Diner in Beneluxhal

Donderdag 9 oktober 2014

Symposium I – Werkgroep coloproctologie & Sectie IBD **Auditorium**

08.30 Inschrijving en koffie

Voorzitters: P.P.L.O. Coene en P. Fockens

Patient tailored behandeling van maligne linkszijdige colonobstructie

09.00 Chirurgische behandelingsopties
Dr. E.C.J. Consten, chirurg, Meander MC, Amersfoort

09.20 DSCA en andere populatiestudies: identificeren van de hoog risico groepen
E.E. van Halsema, arts-onderzoeker MDL, AMC, Amsterdam

09.40 Colon stents: tijd voor herwaardering
Dr. F.J. ter Borg, MDL-arts, Deventer Ziekenhuis

10.00 CONSTRUCT: prospectieve registratie van een evidence based behandelingsalgoritme
Dr. J.E. van Hooft, MDL-arts, AMC, Amsterdam

Symposium II –Werkgroep coloproctologie & Sectie IBD **Auditorium**

Voorzitters: P.P.L.O. Coene en R.L. West

IBD: chirurg of MDL-arts aan zet?

10.30 Behandeling perianale fistels anno 2014
Dr. C.J. Buskens, chirurg, AMC, Amsterdam en
Dr. A.E. van der Meulen-de Jong, MDL-arts, LUMC, Leiden

11.00 Hardnekkige proctitis: (subtotale-procto-)colectomie of toch nog een medicament?
Dr. L.P.S. Stassen, chirurg, UMCM, Maastricht en
Dr. C.J. van der Woude, MDL-arts, Erasmus MC, Rotterdam

11.30 Preventie van het Chirurgisch recidief M. Crohn
Dr. E.S. Ytsma-van Loo, chirurg, UMCG, Groningen en
Prof. dr. G. Dijkstra, MDL-arts, UMCG, Groningen

12.00 Lunchbuffet in de expositiehal

Symposium III - Upper GI tumor werkgroep — Auditorium

Voorzitters: M.I. van Berge Henegouwen en B.P.L. Wijnhoven

Behandeling van het maagcarcinoom

13.00 Vroegdiagnostiek maagcarcinoom en familiair maagcarcinoom
Dr. A. Cats, MDL-arts, NKI Antoni van Leeuwenhoekhuis, Amsterdam

13.20 Profylactische maagresecties bij familiair maagcarcinoom
Prof. dr. R. van Hillegersberg, chirurg, UMC Utrecht

13.40 Targeted therapy bij het maagcarcinoom
M. Slingerland, internist-oncoloog, LUMC, Leiden

14.00 Techniek en resultaten van minimaal invasieve resectie bij het maagcarcinoom
Dr. S.S. Gisbertz, chirurg, AMC, Amsterdam

14.20 Sentinel node procedure bij maagcarcinoom
Dr. A.L. Vahrmeijer, chirurg, LUMC, Leiden

14.40 HIPEC bij het peritoneaal gemetastaseerde maagcarcinoom
Dr. J.W. van Sandick, chirurg, NKI Antoni van Leeuwenhoekhuis, Amsterdam

15.00 Koffie en thee in de expositiehal

Donderdag 9 oktober 2014

NVGIC symposium IV – werkgroep bariatrie **Auditorium**

Voorzitters: R.S.L. Liem en L.E. Perk

Op het raakvlak tussen chirurgie en MDL

15.30 Endoscopisch complicatie management: wat zit er allemaal in de gereedschap koffer?
L.U. Biter, chirurg, St. Franciscus Gasthuis, Rotterdam en Dr. L. Berk, MDL-arts, St. Franciscus Gasthuis, Rotterdam

16.00 Aspire: een oude techniek in een nieuw jasje
Dr. B.A. van Wagensveld, chirurg, St. Lucas Andreas Ziekenhuis, Amsterdam en Dr. S.D. Kuiken, MDL-arts, St. Lucas Andreas Ziekenhuis, Amsterdam

16.30 Endobarrier: metabole wonderslang of hype?
I.M.C. Janssen, chirurg, Ziekenhuis Rijnstate, Arnhem en Dr. M.J.M. Groenen, MDL-arts, Ziekenhuis Rijnstate, Arnhem

17.00 Einde symposium

Voor het vervolgprogramma (17.00 uur president select, sessie uitreiking researchprijs en ere-voordracht), alsmede de State of the Art Lecture van Prof. dr. H.G. Gooszen kunt u zich begeven naar de Brabantzaal.

Vrije voordrachten Nederlandse Vereniging voor Hepatologie **Baroniezaal**

09.00 Inschrijving en koffie

Voorzitters: M.J. Coenraad en J.P.H. Drenth

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

09.30 Inleiding door de voorzitter

09.40 Clinical impact of five large-scale screening projects for chronic hepatitis B and C in Chinese immigrants in the Netherlands (p. 57)

S. Coenen[1], J.M.Vrolijk[1], C. Richter[2], J.P.H. Drenth[3], P.P. Koopmans[4], H. van Soest[5], K.J. van Erpecum[6], J.E. Arends[7], M.A.M.T. Verhagen[8], P. Friederich[9], H.J. Flink[9], M.J. Ter Borg[10], M.C. Mostert[11], B.W.M. Spanier[1], [1]Dept of Gastroenterology and Hepatology, Rijnstate Hospital, Arnhem, [2]Dept of Internal Medicine and Infectious diseases, Rijnstate Hospital, Arnhem, [3]Dept of Gastroenterology and Hepatology, University Medical Center Nijmegen, Nijmegen, [4]Dept of Internal Medicine and Infectious diseases, University Medical Center Nijmegen, Nijmegen, [5]Dept of Gastroenterology and Hepatology, Medical Center Haaglanden, The Hague, [6]Dept of Gastroenterology and Hepatology, University Medical Center Utrecht, Utrecht, [7]Dept of Internal Medicine and Infectious diseases, University Medical Center Utrecht, Utrecht, [8]Dept of Gastroenterology and Hepatology, Diakonessenhuis Hospital Utrecht, Utrecht, [9]Dept of Gastroenterology and Hepatology, Catharina Hospital Eindhoven, Eindhoven, [10]Dept of Gastroenterology and Hepatology, Maxima Medical Center, Eindhoven, [11]Division of Infectious Disease Control, Municipal Public Health Service Rotterdam, Rotterdam, The Netherlands

09.50 Screening on hepatitis B markers before Rituximab administration in a tertiary care center in the Netherlands: the difference between guidelines and reality (p. 58)

L.M. Driessen[1], N.G.M. Hunfeld [2], R.A. de Man[1], [1]Dept of Gastroenterology and Hepatology and [2]Dept of Hospital Pharmacy, Erasmus University Medical Center, Rotterdam, The Netherlands

10.00 Estimating the probability of response to peginterferon alfa in hbeag-positive chronic hepatitis b: the epic-B predictor (p. 59)

M.J. Sonneveld[1], V.W-S Wong[2], J. Cheng[3], T. Piratvisuth[4], J-D Jia[5], S. Zeuzem[6], E. Gane[7], Y-F Liaw[8], W.P. Brouwer[1], Q. Xie[9], J. Hou[10], H.L.Y. Chan[2], H.L.A. Janssen[1,11], B.E. Hansen[1] for the EPIC-B study group, [1]Dept of Gastroenterology and Hepatology, Erasmus MC University Medical Center, Rotterdam, The Netherlands, [2]Dept of Medicine and Therapeutics and Institute of Digestive Disease, the Chinese University of Hong Kong, Hong Kong SAR, China, [3]Beijing Ditan Hospital, Capital Medical University, Beijing, China, [4]NKC Institute of Gastroenterology and Hepatology, Songklanagarind Hospital, Prince of Songkla University, Hat Yai, Thailand, [5]Liver Research Center, Beijing Friendship Hospital, Capital Medical University, Beijing, China, [6]Medical Clinic 1, Johann Wolfgang Goethe University Medical Center, Frankfurt, Germany, [7]Liver Unit, Auckland City Hospital, Auckland, New Zealand, [8]Liver Research Unit, Chang Gung Memorial Hospital, Chang Gung University College of Medicine, Taipei, Taiwan, [9]Dept of Infectious Diseases, Ruijin Hospital, Shanghai, China, [10]Dept of Infectious Diseases, Nanfang Hospital, Nanfang University, Guangzhou, China, [11]Division of Gastroenterology, University Health Network, Toronto, Canada.

10.10 Hepatitis B RNA is present in plasma before and during treatment with peginterferon-alfa or nucleos(t)ide analogues and represents a novel viral marker in chronic hepatitis B patients (p. 60)

L.. Jansen[1,2], K.A. van Dort[2] , H.L. Zaaijer[3], N.A. Kootstra[2], H.W. Reesink[1,2], Dept of Gastroenterology and Hepatology[1], Experimental Immunology[2] and Clinical Virology[3], Academic Medical Center (AMC), University of Amsterdam (UvA), The Netherlands

10.20 Hepatitis B core related antigen levels are associated with response to ETV and PEG-IFN treatment in HbeAg-positive chronic hepatitis B patients (p. 61)

W.P. Brouwer[1], M.H.C. van Campenhout[1], M.J. Sonneveld[1], Q. Xie[2], Q. Zhang[3], F. Tabak[4], A. Streinu[5], J.-Y. Wang[6], G.W. van Oord[1], T. Vanwolleghem[1], S.D. Pas[1], R.J. de Knegt[1], A. Boonstra[1], B.E. Hansen[1,7], and H.L.A. Janssen[1,8], [1]Dept of Gastroenterology and Hepatology, Erasmus MC University Medical Center, Rotterdam, The Netherlands, [2]Infectious Diseases, Ruijin Hospital, Jiaotong University, Shanghai, China, [3]Gastroenterology and Hepatology, Shanghai Public Health Center, Fu Dan University, Shanghai, China, [4]Cerrahpasa Medical Faculty, Istanbul, Turkey, [5]National Institute of Infectious Disease, Bucharest, Romania, [6]Gastroenterology and Hepatology, Zhong Shan Hospital, Fu Dan University, Shanghai, China, [7]Dept of Public Health, Erasmus MC University Medical Center, Rotterdam, The Netherlands, [8]Toronto Center for Liver Disease, Toronto Western and General Hospital, University Health Network, Toronto, Canada

10.30 Long-term Nucleos(t)ide Analogue Consolidation Therapy Reduces Risk of Relapse in Chronic Hepatitis B (p. 62)

H. Chi[1], B.E. Hansen[1], P. Arends[1], M. Abu-Amara[2], C. Yim[2], J.J. Feld[2], A.A. van der Eijk[3], R.J. de Knegt[1], D.K.H. Wong[2], H.L.A. Janssen[1,2], [1]Dept of Gastroenterology and Hepatology, Erasmus MC University Medical Center Rotterdam, Rotterdam, The Netherlands, [2]Toronto Centre for Liver Disease, Toronto Western & General Hospital, University of Toronto, Toronto, Canada, [3]Dept of Viroscience, Erasmus MC University Medical Center Rotterdam, Rotterdam, The Netherlands

10.40 Characteristics of acute hepatitis E infection in a rural population (p. 63)

M.J.A. van Heijst[1], M. van Tilborg[1], R.F. Eichhorn[1], U. de Wit[1], R.J.F. Laheij[1], [1]Dept of Gastroenterology, St. Elisabeth hospital, Tilburg, The Netherlands

10.50 Hepatitis E in clinical practice: a retrospective descriptive and serological study (p. 64)

S.Y. Lam[1], B.J. Herpers[2], A.M. Eskes[3], and E.J. van Soest[1], [1]Dept of Gastroenterology and Hepatology, Kennemer Gasthuis, Haarlem, [2]Regional Laboratory of Public Health Kennemerland, Haarlem, [3]Research Center Linnaeus Institute, Haarlem, The Netherlands

Vrije voordrachten Nederlandse Vereniging voor Hepatologie — Baroniezaal

11.00 Blood Group Non-O is a Risk Factor for Portal Vein Thrombosis (p. 65)

E.P.C. Plompen[1], S. Darwish Murad[1], M. Primignani[2], E. Elias[3], J. Trebicka[4], L. Lasser[5], B.E. Hansen[1,6], J.C. Garcia-Pagan[7], D.C. Valla[8], F.W.G. Leebeek[9], H.L.A. Janssen[1,10], [1]Dept of Gastroenterology and Hepatology, Erasmus MC University Medical Center, Rotterdam, The Netherlands, [2]Gastroenterology and Gastrointestinal Endoscopy Unit, Ospedale Policlinico, Mangiagalli and Regina Elena Foundation, Milan, Italy, [3]Liver Unit, Queen Elizabeth University Hospital, Birmingham, United Kingdom, [4]Dept of Internal Medicine I, University Hospital of Bonn, Bonn, Germany, [5]Dept of Hepatogastroenterology, Centre Hospitalier Universitaire Brugmann, Bruxelles, Belgium, [6]Dept of Public Health, Erasmus MC University Medical Center, Rotterdam, The Netherlands, [7]Hepatic Hemodynamic Laboratory, Liver Unit, Institut de Malalties Digestives, IDIBAPS and Ciberehd, Barcelona, Spain, [8]Dept of Hepatology, Hopital Beaujon, Assistance Publique-Hopitaux de Paris, Inserm U773 and University Paris-7, Clichy, France, [9]Dept of Hematology, Erasmus MC University Medical Center, Rotterdam, The Netherlands, [10]Liver Centre, Toronto Western and General Hospitals, University Health Network, Toronto, Ontario, Canada

11.10 Treatment of cyst infections: large practice variation and common failure of antibiotic therapy (p. 66)

M.A. Lantinga[1], A. Geudens[1], T.J.G. Gevers[1], J.P.H. Drenth[1], [1]Dept of Gastroenterology and Hepatology, Radboud University Medical Center, Nijmegen, The Netherlands

11.20 Development and validation of a polycystic liver disease specific questionnaire (p. 67)

M.K. Neijenhuis[1], R.C.P.M. van den Ouweland[1], T.J.G. Gevers[1], W.Kievit[2], J.P.H. Drenth[1], [1]Dept of Gastroenterology and Hepatology, Radboud University Medical Center, Nijmegen, [2]Dept of Health Evidence, Radboud University Medical Center, Nijmegen, The Netherlands

11.30 Einde abstractsessie, ledenvergadering NVGE in de Brabantzaal.

12.00 Lunch in expositiehal

13.00 Symposium Hepatitis C – nieuwe ontwikkelingen in de Brabantzaal

Nederlandse Vereniging voor Hepatologie — Baroniezaal

15.00 Algemene ledenvergadering Nederlandse Vereniging voor Hepatologie
Thee/koffie bij de zaal.

Vrije voordrachten Nederlandse Vereniging voor Hepatologie — Baroniezaal

Voorzitters: L.C. Baak en J.T. Brouwer

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

15.30 Clinical efficacy of highly effective interferon-free therapy in patients with chronic HCV infection and compensated advanced hepatic fibrosis (p. 68)

A.J.P. van der Meer[1], R. Maan[1], J.J. Feld[2], H. Wedemeyer[3], G. Fattovich[4], J-F Dufour[5], F. Lammert[6], A. Duarte-Rojo[2], M.P. Manns[3], S. Zeuzem[7], W.P. Hofmann[7], D. Ieluzzi[8], R.J. de Knegt[1], B.E. Hansen[1], B.J. Veldt[1], H.L.A. Janssen[1,2], [1]Dept of Gastroenterology and Hepatology, Erasmus MC University Medical Center Rotterdam, Rotterdam, The Netherlands, [2]Liver Centre, Toronto Western Hospital, University Health Network, Toronto, Ontario, Canada, [3]Dept of Gastroenterology, Hepatology, and Endocrinology, Medical School Hannover, Hannover, Germany, [4]Dept of Medicine, University of Verona, Verona, Italy, [5]Hepatology, Dept of Clinical research, University of Bern, Bern, Switzerland, [6]Dept of Medicine II, Saarland University Medical Center, Homburg, Germany, [7]Medizinische Klinik 1, Klinikum der Johann Wolfgang Goethe-Universität, Frankfurt am Main, Germany, [8]Dept of Surgery, University of Verona, Verona, Italy

15.40 Assessment of noninvasive hepatic fibrosis markers among patients with chronic HCV infection and advanced liver disease (p. 69)

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], W.P. Hofmann[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, 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, Dept 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

15.50 Influence of creatinine measurement methods on MELD-score in icteric patients (p. 70)

A.B. Greuter-Vroling[1], R.J.A.C. Roelofsen-de Beer[1], B. Bolman[1], B.D. van Zelst[1], C.R.B. Ramakers[1], [1]Dept of Clinical Chemistry, Erasmus MC University Medical Center, Rotterdam, The Netherlands

16.00 Current allocation system for liver transplantation benefits PSC patients (p. 71)

M. Tieleman[1], A.C. de Vries[1], B.E. Hansen[1], R.A. de Man[1], W.G. Polak[2], H.J. Metselaar[1], [1]Dept of Gastroenterology and Hepatology and [2]Dept of Surgery, Erasmus MC University Medical Center Rotterdam, Rotterdam, The Netherlands

16.10 Copeptin: a marker of circulatory derangement, is independently associated with outcome in patients admitted for acute decompensation of cirrhosis (p. 72)

H.W. Verspaget[1], A. Aamorós Navarro[2], R. Jalan[3], D. Benten[4], F. Durand[5], J.J van der Reijden[1], B. van Hoek[1], M.J. Coenraad[1], [1]Dept of Gastroenterology and Hepatology, Leiden University Medical Center, Leiden, The Netherlands, [2]Liver Unit / EASL-CLIF Data Center, Hospital Clínic de Barcelona, Barcelona, Spain, [3]Liver Failure Group, UCL Institute for Liver and Digestive Health, UCL Medical School, Royal Free Hospital, London, UK, [4]Dept of Medicine, University Medical Center Hamburg-Eppendorf, Hamburg, Germany, [5]Hepatology and Liver Intensive Care Unit, Hospital Beaujon, Clichy, France

16.20 New model to identify UDCA-treated primary biliary cirrhosis patients in need of additional therapy. Results of an international follow-up study of 4119 patients (p. 73)

W.J. Lammers[1], H.R. van Buuren[1], C.Y. Ponsioen[2], H.L.A. Janssen[3], A. Floreani[4], G.M. Hirschfield[5], C. Corpechot[6], M.J. Mayo[7], P. Invernizzi[8], P.M. Battezzati[9], A. Parés[10], F. Nevens[11], A.K. Burroughs[12], A.L. Mason[13], K.V. Kowdley[14], M.H. Imam[15], K.Boonstra[2], A. Cheung[3], T. Kumagi[3,16], N. Cazzagon[4], I. Franceschet[4], P.J. Trivedi[5], R. Poupon[6], A. Lleo[8], L. Caballeria[10], G. Pieri[12], K.D. Lindor[17], B.E. Hansen[1], [*]deceased, [1]Dept of Gastroenterology and Hepatology, Erasmus University Medical Center, Rotterdam, The Netherlands, [2]Dept of Gastroenterology and Hepatology, Academic Medical Center, Amsterdam, The Netherlands, [3]Liver Clinic, Toronto Western & General Hospital, University Health Network, Toronto, ON, Canada, [4]Dept of Surgery, Oncology and Gastroenterology, University of Padua, Padua, Italy, [5]NIHR Biomedical Research Unit and Centre for Liver Research, University of Birmingham, Birmingham, UK, [6]Centre de Référence des Maladies Inflammatoires des VoiesBiliaires, Hôpital Saint-Antoine, APHP, Paris, France, [7]Digestive and Liver diseases, UT Southwestern Medical Center, Dallas, TX, USA, [8]Liver Unit and Center for Autoimmune Liver Diseases, Humanitas Clinical and Research Center, Rozzano (MI), Italy, [9]Dept of Health Sciences, Università degli Studi di Milano, Milan, Italy, [10]Liver Unit, Hospital Clínic, CIBERehd, IDIBAPS, University of Barcelona, Barcelona, Spain, [11]Dept of Hepatology, University Hospitals Leuven, KULeuven, Leuven, Belgium, [12]The Sheila Sherlock Liver Centre, The Royal Free Hospital, London, United Kingdom, [13]Divison of Gastroenterology and Hepatology, University of Alberta, Edmonton, AB, Canada, [14]Liver Center of Excellence, Digestive Disease Institute, Virginia Mason Medical Center, Seattle, WA, USA, [15]Dept of Gastroenterology and Hepatology, Mayo Clinic, Rochester, MN, USA, [16]Dept of Gastroenterology and Metabology, Ehime University graduate School of Medicine, Ehime, Japan, [17]Arizona State University, Phoenix, AZ, USA*

16.30 Einde abstractsessie

Voor de President Select en de uitreiking van de Gastrointestinale Research prijs 2014 kunt u zich begeven naar de Brabantzaal.

Vrije voordrachten Ned. Vereniging voor Gastrointestinale Chirurgie — Parkzaal

Voorzitters: M. van Det en M.D.P. Luyer

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

09.30 The role of statines in the treatment of esophageal cancer patients (p. 74)
M.C.J. Anderegg[1], S.M. Lagarde[1], S.S. Gisbertz[1], S.L. Meijer[2], M.C. Hulshof[3], J.J. Bergman[4], H.W.M. van Laarhoven[5], M.I. van Berge Henegouwen[1], [1]Dept of Surgery, [2]Dept of Pathology, [3]Dept of Radiotherapy, [4]Dept of Gastroenterology and [5]Dept of Medical Oncology, Academic Medical Center, Amsterdam, The Netherlands

09.40 Tumor stroma ratio (TSR) in esophageal adenocarcinoma biopsies in the prediction of response to neoadjuvant therapy and overall survival (p. 75)
C.R.M. Hetterschijt[1], S.M. Lagarde[1], R.L.G.M. Blom[1], M.C.J. Anderegg[1], H.W.M. van Laarhoven[2], S.L. Meijer[3], S.S. Gisbertz[1], M.I. van Berge Henegouwen[1], [1]Dept of Surgery, [2]Dept of Medical Oncology, [3]Dept of Pathology, Academic Medical Center, Amsterdam, The Netherlands

09.50 Pathological complete responders and non-responders to neoadjuvant chemoradiotherapy in esophageal cancer (p. 76)
C.M. den Bakker[1], J.K. Smit[1], M.A. Cuesta[1], J.T.M. Plukker[2], D.L. van der Peet[1], [1]VU University Medical Center, Amsterdam, [2]University Medical Center Groningen, Groningen, The Netherlands

10.00 Surgical treatment of adenocarcinomas of the esophagogastric junction (p. 77)
K. Parry[1], L. Haverkamp[1], R. Bruijnen[2], P.D. Siersema[3], J.P. Ruurda[1], R. van Hillegersberg[1], [1]Dept of Surgery, University Medical Center Utrecht, Utrecht, [2]Dept of Radiology, University Medical Center Utrecht, Utrecht, [3]Dept of Gastroenterology and Hepatology, University Medical Center Utrecht, Utrecht, The Netherlands*

10.10 The value of amylase level measurements in drain fluid for early diagnosis of intrathoracic leakage after esophagectomy (p. 78)
G.H.K. Berkelmans[1], E.A. Kouwenhoven[2] , B.J.J. Smeets[1], T.J. Weijs[1], R.J. Eck[2], M.J. van Det[2], G.A.P. Nieuwenhuijzen[1], M.D.P. Luyer[1], [1]Dept of Surgery, Catharina Hospital, Eindhoven, [2]Dept of Surgery, Hospital group Twente, Almelo, The Netherlands

10.20 Leaving a mobilized thoracic esophagus in situ when incurable cancer is discovered intra-operatively (p. 79)
T.J. Weijs[1,2,5], E.L.A. Toxopeus[4], J.P. Ruurda[1], M.D.P. Luyer[2], G.A.P. Nieuwenhuijzen[2], M-C Schraepen[3], M.N. Sosef[3], B.P.L. Wijnhoven[4], I.R.M. Schets[1], R.L.A.W. Bleys[5], R. van Hillegersberg[1], [1]Department of Surgery, University Medical Center Utrecht, Utrecht, The Netherlands, [2]Department of Surgery, Catharina Hospital, Eindhoven, The Netherlands, [3]Department of Surgery, Atrium Medical Center, Heerlen, The Netherlands, [4]Department of Surgery, Erasmus MC University Medical Centre Rotterdam, The Netherlands, [5]Department of Anatomy, University Medical Center Utrecht, Utrecht, The Netherlands

10.30 Diagnostic performance of 18F FDG PET(-CT) for the detection of recurrent esophageal cancer after treatment with curative intent: a systematic review and meta- analysis (p. 80)

L. Goense[1], P.S.N. van Rossum[1,2], M.G.E.H. Lam[3], J.P. Ruurda[1], R. van Hillegersberg[1], [1]Dept of Surgery, University Medical Center Utrecht, Utrecht, [2]Dept of Radiotherapy, University Medical Center Utrecht, Utrecht, [3]Dept of Radiology and Nuclear Medicine, University Medical Center Utrecht, Utrecht, The Netherlands

10.40 Prophylactic gastrectomy in patients with hereditary diffuse gastric cancer: how radical are we? (p. 81)

R.T. van der Kaaij[1], A. Cats[2], P. Snaebjornsson[3], L.E. van der Kolk[4], O. Balague Ponz[3], J.W. van Sandick[1], [1]Dept of Surgery, [2]Dept of Gastroenterology, [3]Dept of Pathology and [4]Dept of Clinical Genetics, The Netherlands Cancer Institute – Antoni van Leeuwenhoek Hospital, Amsterdam, The Netherlands

10.50 Omentectomy in gastric cancer surgery: a prospective cohort study in 100 patients (p. 82)

E.J. Jongerius[1], D. Boerma[2], C.A. Seldenrijk[3], S.L. Meijer[4], J.J. Scheepers[5], F. Smedts[6], S.M. Lagarde[1], O. Balague Pons[7], M.I. van Berge Henegouwen[1], J.W. van Sandick[8], S.S. Gisbertz[1], [1]Dept of Surgery, Academic Medical Center, Amsterdam, [2]Dept of Surgery, St. Antonius Hospital, Nieuwegein, [3]Dept of Pathology, St. Antonius Hospital, Nieuwegein, [4]Dept of Pathology, Academic Medical Center, Amsterdam, [5]Dept of surgery, Reinier de Graaf Gasthuis, Delft, [6]Dept of Pathology, Reinier de Graaf Gasthuis, Delft, [7]Dept of Pathology, Netherlands Cancer Institute, Amsterdam, Netherlands, [8]Dept of Surgery, Netherlands Cancer Institute, Amsterdam, The Netherlands

11.00 Laparoscopic gastrectomy for gastric cancer: results of implementation of a new technique (p. 83)

E.J. Jongerius[1], M.I. van Berge Henegouwen[1], S.M. Lagarde[1], S.S. Gisbertz[1], [1]Dept of Surgery, Academic Medical Center, Amsterdam, The Netherlands

11.10 Laparoscopic versus open distal pancreatectomy for benign and malignant disease: a nationwide, retrospective matched-cohort study (p. 84)

T. de Rooij[1], A.P.J. Jilesen[1], G. Kazemier[2], D. Boerma[3], B.A. Bonsing[4], K. Bosscha[5], R.M. van Dam[6], S. van Dieren[7], M.G.W. Dijkgraaf[7], C.H.J. van Eijck[8], M.F. Gerhards[9], H. van Goor[10], E. van der Harst[11], I.H.J.T. de Hingh[12], J.M. Klaase[13], I.Q. Molenaar[14], E.J. Nieveen-van Dijkum[1], G.A. Patijn[15], H.C. van Santvoort[14], J.J.G. Scheepers[16], G.P. van der Schelling[17], E. Sieders[18], J.A. Vogel[1], O.R.C. Busch[1], M.G.H. Besselink[1] for the Dutch Pancreatic Cancer Group, [1]Dept of Surgery, Academic Medical Center, Amsterdam, [2]Dept of Surgery, VU University Medical Center, Amsterdam, [3]Dept of Surgery, St Antonius Hospital, Nieuwegein, [4]Dept of Surgery, Leiden University Medical Center, Leiden, [5]Dept of Surgery, Jeroen Bosch Hospital, Den Bosch, [6]Dept of Surgery, Maastricht University Medical Center, Maastricht, [7]Clinical research unit, Academic Medical Center, Amsterdam, [8]Dept of Surgery, Erasmus Medical Center, Rotterdam, [9]Dept of Surgery, Onze Lieve Vrouwe Gasthuis, Amsterdam, [10]Dept of Surgery, Radboud University Nijmegen Medical Center, Nijmegen, [11]Dept of Surgery, Maasstad Hospital, Rotterdam, [12]Dept of Surgery, Catharina Hospital, Eindhoven, [13]Dept of Surgery, Medisch Spectrum Twente, Enschede, [14]Dept of Surgery, University Medical Center Utrecht, Utrecht, [15]Dept of Surgery, Isala Clinics, Zwolle, [16]Dept of Surgery, Reinier de Graaf Gasthuis, Delft, [17]Dept of Surgery, Amphia Hospital, Breda, [18]Dept of Surgery, University Medical Center Groningen, Groningen, The Netherlands

Vrije voordrachten Ned. Vereniging voor Gastrointestinale Chirurgie Parkzaal

11.20 Preoperative Biliary Drainage in Hilar Cholangiocarcinoma: Identifying patients that benefit from immediate percutaneous instead of endoscopic drainage (p. 85)

J.K. Wiggers[1], B. Groot, Koerkamp[2], R.J. Coelen[1], M. Gonen[3], S. van Dieren[4], E.A. Rauws[5], M.A. Schattner[6], O.M. van Delden[7], K.T. Brown[8], P.J. Allen[2], O.R. Busch[1], M.I. D'Angelica[2], R.P. DeMatteo[2], D.J. Gouma[1], T.P. Kingham[2], W.R. Jarnagin[2], T.M. van Gulik[1], [1]Dept of Surgery, [4]Dept of Epidemiology and Biostatistics, [5]Dept of Gastroenterology and [7]Dept of Interventional Radiology, Academic Medical Center, Amsterdam, The Netherlands, [2]Dept of Surgery, [3]Dept of Epidemiology and Biostatistics, [6]Dept of Gastroenterology and [8]Dept of Interventional Radiology, Memorial Sloan Kettering Cancer Center, New York, USA

11.30 Ledenvergadering NVGE in de Brabantzaal

12.00 Lunchbuffet in de expositiehal

Vrije voordrachten Ned. Vereniging voor Gastrointestinale Chirurgie Parkzaal

Voorzitters: S.W. Polle en J.M. Vogten

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

13.00 A new safe and effective anti-adhesive barrier material; poly (1,3trimethyl carbonate) effectively and safely reduces adhesion formation following abdominal surgery in a rat model (p. 86)

R.R.M. Vogels[1], J.W.A.M. Bosmans[1], K.W.Y. van Barneveld[1], L. Platenkamp[1], S.O. Breukink[1], G. Beets[1], N.D. Bouvy[1], [1]Dept of General Surgery, Maastricht University Medical Center, Maastricht, The Netherlands

13.10 Body composition as risk factor for post-operative outcome after resection for colon cancer (p. 87)

B.C. Boer[1], F. de Graaff[1,2], M. Brusse-Keizer[1], D. Bouman[1], C.H. Slump[2], J.M. Klaase[1], [1]Medisch Spectrum Twente, Enschede, [2]University of Twente, Enschede, The Netherlands

13.20 The value of contrast and endoscopic evaluation of the anastomosis, prior to closure of loop ileostomy after low anterior resection (p. 88)

S.A.M. Troquay[1], M.F. Sier[1], S.A.L. Bartels[1], E.M. von Meyenfeldt[1], R.J. Oostenbroek[1], [1]Dept of Surgery, Albert Schweitzer Hospital, Dordrecht, The Netherlands

13.30 The use of routine colonoscopy after an uncomplicated conservatively treated episode of acute diverticulitis (p. 89)

W. Ramphal[1], P. Gobardhan[1], [1]Amphia Hospital, Breda, The Netherlands

13.40 Laparoscopic peritoneal lavage or sigmoidectomy for generalized peritonitis due to perforated diverticulitis; results of a multicenter randomised trial (The Ladies Trial) (p. 90)

S. Vennix[1,2], G.D. Musters[1], H.A. Swank[1], I.M. Mulder[2], E.C.J. Consten[3], M.A. Boermeester[1], S. van Dieren[4], J.F. Lange[2], W.A. Bemelman[1], Dutch Diverticular Disease (3D) Collaborative Study Group, [1]Dept of Surgery, Academic Medical Center, Amsterdam, [2]Dept of Surgery, Erasmus Medical Center – Havenziekenhuis, Rotterdam, [3]Dept of Surgery, Meander Medical Center, Amersfoort, [4]Clinical Research Unit, Academic Medical Center, Amsterdam, The Netherlands

13.50 Poor outcome after CRS and HIPEC for colorectal peritoneal carcinomatosis with signet ring cell histology (p. 91)

T.R. van Oudheusden[1], H.J. Braam[2], S.W. Nienhuijs[1], M.J. Wiezer[2], B. van Ramshorst[2], M.D.P Luyer[1], I.H.J.T. de Hingh[1], [1]Dept of Surgery, Catharina Hospital, Eindhoven, [2]Dept of Surgery, St. Antonius Hospital, Nieuwegein, The Netherlands

14.00 Severe skeletal muscle depletion is associated with reoperation in patients treated with cytoreductive surgery and hyperthermic intraperitoneal chemotherapy (p. 92)

J.L.A. van Vugt[1], H.J. Braam[1], A. Vestering[1], T.L. Bollen[2], M.J. Wiezer[1], B. van Ramshorst[1], D. Boerma[1], [1]Dept of Surgery, St. Antonius Hospital, Nieuwegein, [2]Dept of Radiology, St. Antonius Hospital, Nieuwegein, The Netherlands

14.10 Describing peripancreatic collections according to the 2013 Revised Atlanta Classification of acute pancreatitis: an international interobserver agreement study using the PANCODE system (p. 93)

S.A.W. Bouwense[1], S. van Brunschot[1,2], H.C. van Santvoort[3], M.G. Besselink[4], T.L. Bollen[5], O.J. Bakker[3], P.A. Banks[6], M.A. Boermeester[4], V.C. Cappendijk[7], R. Carter[8], R. Charnley[9], C.H. van Eijck[10], P.C. Freeny[11], J.J. Hermans[12], D.M. Hough[13], C. Johnson[14], J.S. Laméris[15], M.M. Lerch[16], J. Mayerle[16], K.J. Mortele[17], M.G. Sarr[18], B. Stedman[19], S. Swaroop Vege[20], J. Werner[21], H.G. Gooszen[1], K.D. Horvath[22], [1]Dept of OR/Clinical Surgical Research and [12]Dept of Radiology, Radboud University Medical Center, Nijmegen, The Netherlands, [2]Dept of Gastroenterology and Hepatology, [4]Dept of Surgery and [15]Dept of Radiology, Academic Medical Center, Amsterdam, The Netherlands, [3]Dept of Surgery, University Medical Center Utrecht, Utrecht, The Netherlands, [5]Dept of Radiology, St. Antonius Hospital, Nieuwegein, The Netherlands, [6]Divisions of Gastroenterology, Center for Pancreatic Disease, Brigham and Womens Hospital, Harvard Medical School, Boston, Massachusetts, USA, [7]Dept of Radiology, Jeroen Bosch Hospital, 's-Hertogenbosch, The Netherlands, [8]Dept of Surgery, Glasgow Royal Infirmary, Glasgow, United Kingdom, [9]Dept of Surgery, Freeman Hospital, Newcastle uponTyne, United Kingdom, [10]Dept of Surgery, Erasmus MC University Medical Center Rotterdam, Rotterdam, The Netherlands, [22]Dept of Surgery and [11]Dept of Radiology, University of Washington Medical Center, Seattle, Washington, USA, [18]Dept of Surgery, [20]Dept of Gastroenterology and [13]Dept of Radiology, Mayo Clinic, Rochester, Minnesota, USA, [14]Dept of Surgery and [19]Dept of Radiology, Southampton General Hospital, Hampshire, United Kingdom, [16]Dept of Gastroenterology, University Medicine Greifswald, Greifswald, Germany, [17]Dept of Radiology[17], Beth Israel Deaconess Medical Center, Boston, Massachusetts, USA, [22]Dept of Surgery[22], University of Heidelberg, Heidelberg, Germany

Vrije voordrachten Ned. Vereniging voor Gastrointestinale Chirurgie Parkzaal

14.20 Predicting success of catheter drainage in infected necrotizing pancreatitis (p. 94)

R.A. Hollemans[1,2], T.L. Bollen[3], S. van Brunschot[4], O.J. Bakker[1], U. Ahmed Ali[1], H. van Goor[5], M.A. Boermeester[6], H.G. Gooszen[7], M.G. Besselink[6], H.C. van Santvoort[1] for the Dutch Pancreatitis Study Group, [1]Dept of Surgery, University Medical Center Utrecht, Utrecht, [2]Dept of Research and Development, St. Antonius Hospital Nieuwegein, [3]Dept of Radiology, St. Antonius Hospital Nieuwegein, [4]Dept of Gastroenterology and Hepatology, Academic Medical Center, Amsterdam, [5]Dept of Surgery, Radboud University Medical Center Nijmegen, [6]Dept of Surgery, Academic Medical Center, Amsterdam, [7]Dept of Operation Rooms/Evidence Based Surgery, Radboud University Medical Center Nijmegen, The Netherlands

14.30 Exocrine pancreatic insufficiency in patients with pancreatic or peri-ampullary cancer: a systematic review (p. 95)

D.S.J. Tseng[1], H.C. van Santvoort[1], I.H.M. Borel Rinkes[1], I.Q. Molenaar[1], [1]Dept of Surgery, University Medical Center Utrecht, Utrecht, The Netherlands

14.40 Bedside electromagnetic guided placement of nasojejunal feeding tubes in patients after pancreatoduodenectomy: prospective single-center pilot study (p. 96)

A. Gerritsen[1], A. Duflou[2], M. Ramali[2], O.R.C. Busch[1], D.J. Gouma[1], E.M.H. Mathus-Vliegen[2], M.G.H. Besselink[1], [1]Dept of Surgery, Academic Medical Center, Amsterdam, [2]Dept of Gastroenterology, Academic Medical Center, Amsterdam, The Netherlands

14.50 Comparison of the Dutch and English version of the Carolinas Comfort Scale; a specific quality of life-questionnaire for abdominal hernia repairs with mesh (p. 97)

K. Nielsen[1], M.M. Poelman[1], N. van Veenendaal[1], F.M. den Bakker[2], H.J. Bonjer[1], W.H. Schreurs[2], [1]VU University Medical Center, Amsterdam, [2]Alkmaar Medical Center, Alkmaar, The Netherlands

15.00 Koffie en thee in de expositiehal

Ledenvergadering NVMDL **Zaal 81-82-83**

08.00 Ledenvergadering Nederlandse Vereniging van Maag-Darm-Leverartsen

Vrije voordrachten Sectie Gastrointestinale Endoscopie **Brabantzaal**

Voorzitters: J.J.G.H.M. Bergman en Y.C.A. Keulemans

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

09.30 Improvement of colonoscopy quality in daily clinical practice (p. 98)

E.H. Schreuders[1], T.D.G. Belderbos[2], M.A.C. Meijssen[3], R.J.T.H. Ouwendijk[4], T.J. Tang[5], F. ter Borg[6], P. van der Schaar[7], D.M. Le Fèvre[8], M. Stouten[9], E.A.M. Hassink[8], W.H. de Vos[3], P.C.J. ter Borg[4], M.J. Bruno[1], L.M.G. Moons[2], E.J. Kuipers[1], P.D. Siersema[2], M.C.W. Spaander[1], [1]Dept of Gastroenterology and Hepatology, Erasmus Medical Center, Rotterdam, [2]Dept of Gastroenterology and Hepatology, University Medical Center Utrecht, Utrecht, [3]Dept of Gastroenterology and Hepatology, Isala Hospital, Zwolle, [4]Dept of Gastroenterology and Hepatology, Ikazia Hospital, Rotterdam, [5]Dept of Gastroenterology and Hepatology, IJsselland Hospital, Capelle aan den IJssel, [6]Dept of Gastroenterology and Hepatology, Deventer Hospital, Deventer, [7]Dept of Gastroenterology and Hepatology, Antonius Hospital, Nieuwegein, [8]Achmea Health Care, Leiden, [9]Gupta Strategists, Ophemert, The Netherlands

09.40 Comparing standard colonoscopy with EndoRings™ colonoscopy: a randomized, multicenter tandem colonoscopy study – interim results of the CLEVER study (p. 99)

V.K. Dik[1], I.M. Gralnek[2,3], O. Segol[4], A. Suissa[2,3], L.M.G. Moons[1], M. Segev[5], T.D.G. Belderbos[1], D.K. Rex[6], P.D. Siersema[1], [1]Dept of Gastroenterology and Hepatology, University Medical Center Utrecht, Utrecht, The Netherlands, [2]Dept of Gastroenterology, Rambam Health Care Campus, Haifa, Israel, [3]GI Endoscopy Unit, Elisha Hospital, Haifa, Israel, [4]Dept of Gastroenterology, Lady Davis Carmel Medical Center, Haifa, Israel, [5]EndoAid Ltd, Caesarea, Israel, [6]Dept of Medicine, Division of Gastroenterology and Hepatology, Indiana University Hospital, Indianapolis, IN, United States

09.50 The 'golden retriever' study: improving polyp retrieval rates by providing competitive feedback (p. 100)

T.D.G. Belderbos[1], M.G.H. van Oijen[1], L.M.G. Moons[1], P.D. Siersema[1], [1]Dept of Gastroenterology and Hepatology, University Medical Center Utrecht, Utrecht, The Netherlands

10.00 The accuracy of real-time probe based confocal laser endomicroscopy for differentiation of colorectal polyps during colonoscopy (p. 101)

T.D.G. Belderbos[1], M.G.H. van Oijen[1], L.M.G. Moons[1], P.D. Siersema[1], [1]Dept of Gastroenterology and Hepatology, University Medical Center Utrecht, Utrecht, The Netherlands

10.10 Endoscopic gastroplication as a treatment for morbid obesity is safe and effective: it affects ghrelin response, desire to eat and caloric intake and results in significant weight loss (p. 102)

G.F. Paulus[1], M. van Avesaat[1], T. Verlaan[2], E.M. Mathus-Vliegen[2], E.A. Veldhuyzen[2], J.M. Conchillo[1], A.A. Masclee[1], P. Fockens[2], N.D. Bouvy[1], [1]Maastricht University Medical Center, Maastricht, [2]Academic Medical Center, Amsterdam, The Netherlands

10.20 Surveillance of Barrett's esophagus and mortality from esophageal adenocarcinoma: a population-based cohort study (p. 103)

R.E. Verbeek[1], M. Leenders[1], F.J.W. ten Kate[2], R. van Hillegersberg[3], F.P. Vleggaar[1], J.W.P.M. van Baal[1], M.G.H. van Oijen[1], P.D. Siersema[1], [1]Dept of Gastroenterology and Hepatology, [2]Dept of Pathology and [3]Dept of Surgery, University Medical Center Utrecht, Utrecht, The Netherlands

10.30 The SURF trial pre-assessment cohort: Spatial extent of low-grade dysplasia and extent of agreement between expert pathologists are associated with risk of malignant progression (p. 104)

L.C. Duits[1], K. N. Phoa[1], T. P. Pham[1], F. J. Ten Kate[2] , C. A. Seldenrijk[3], G. J. Offerhaus[2], M. Visser[1], S. L. Meijer[1], K. K. Krishnadath[1], R. C. Mallant-Hent[4], J. G. Tijssen[1], J. J. Bergman[1], [1]Academic Medical Center, Amsterdam, [2]University Medical Center Utrecht, Utrecht, [3]St. Antonius Hospital, Nieuwegein, [4]Flevo Hospital, Almere, The Netherlands

10.40 Stent placement for complications of bariatric surgery (p. 105)

S. Altenburg – van der Velden[1], A.B.M. Elskamp[1], L. Berk[1], L.U. Biter[2], G.H. Mannaerts[2], R.L. West[1], I. Leeuwenburgh[1], [1]Dept of Gastroenterology and Hepatology and [2]Dept of Surgery, Sint Franciscus Gasthuis, Rotterdam, The Netherlands

10.50 Risk of colon cancer after acute uncomplicated diverticulitis: is colonoscopy really necessary? An irish perspective (p. 106)

A. Moorthy[1], E.O 'Connor[1], H. Al-Chalabi[1], N. Ravi[1], [1]St. James's University Hospital, Dublin, Ireland

11.00 Koffie en thee in de expositiehal

Symposium Sectie Gastrointestinale Endoscopie **Brabantzaal**

Voorzitters: J.J.G.H.M. Bergman en P.D. Siersema

Minisymposium richtlijn Barrett

11.30 Barrettslokdarm: de belangrijkste ontwikkelingen van de laatste jaren en een blik op de toekomst

Prof. dr. P.D. Siersema, MDL-arts, UMC Utrecht

11.40 Less is more: de belangrijkste veranderingen in de komende Barrettrichtlijn
Prof. dr. J.J.G.H.M. Bergman, MDL-arts, AMC, Amsterdam

11.50 Welke Barrett behoeft welke therapie?
Prof. dr. B.L.A.M. Weusten, MDL-arts, St. Antonius Ziekenhuis, Nieuwegein

12.00 Barrett casuïstiek
Dr. B.E. Schenk, MDL-arts, Isala Klinieken, Zwolle en
Prof. dr. S. Meijer, chirurg, VU medisch centrum, Amsterdam

12.15 Einde symposium

Sectie Gastrointestinale Endoscopie **Brabantzaal**

Voorzitters: T. Römkens en B.L.A.M. Weusten

Video Sessie - Sectie Gastrointestinale Endoscopie

12.15 Een door de sectie Gastrointestinale Endoscopie georganiseerd programma met zonderlinge video's van eigen bodem

13.00 Lunchbuffet in de expositiehal

Vrijdag 10 oktober 2014

ALV en Richtlijnsymposium Sectie Inflammatoire Darmziekten **Brabantzaal**

14.00 Korte ledenvergadering Sectie Inflammatoire Darmziekten

Voorzitters: A.A van Bodegraven en G. Dijkstra

Symposium rond update IBD richtlijn

14.10 Inleiding door de voorzitter
Dr. A.A. van Bodegraven, MDL-arts, Orbis Medisch Centrum, Sittard

14.15 Behandeldoelen m Crohn en Colitis
Dr. M.J. Pierik, MDL-arts, MUMC, Maastricht

14.30 Biologicals: start, stop
Dr. M. Lowenberg, MDL-arts, AMC, Amsterdam

14.50 Therapeutic drug monitoring en farmacogenetica ter optimalisatie van IBD therapie
Dr. D.J. de Jong, MDL-arts, Radboud UMC, Nijmegen

15.10 Surveillance beleid bij IBD
Dr. B. Oldenburg, MDL-arts, UMC Utrecht

15.30 Vaccinatie en reisadviezen bij immunosuppressie
Dr. H.H. Fidder, MDL-arts, UMC Utrecht

15.50 Fertiliteit, zwangerschap en borstvoeding bij IBD patiënten
Dr. C.J. van der Woude, MDL-arts, Erasmus MC, Rotterdam

16.00 Einde programma

Mini-symposium Pancreatitis Werkgroep Nederland **Auditorium**

Voorzitter: M.J. Bruno

09.30 Opening voorzitter
Prof. dr. M.J. Bruno, MDL-arts, Erasmus MC, Rotterdam

09.35 Nieuwe Nederlandse evidence-based richtlijn Acute Pancreatitis
Dr. M.G.H. Besselink, chirurg, AMC, Amsterdam

09.50 Optimale timing en route van voeding bij acute pancreatitis. Resultaten van de PYTHON trial
O. Bakker, arts-onderzoeker PWN

09.05 Optimale timing van een cholecystectomie na biliaire pancreatitis. Resultaten van de PONCHO trial
D. da Costa, arts-onderzoeker PWN

10.20 Optimale route en timing van interventie bij geïnfecteerde pancreasnecrose. The saga continues; PANTER, TENSION en POINTER
J. van Grinsven, arts-onderzoeker PWN

10.40 What's cooking? (kort overzicht lopende en opstartende studies)
- APEC - *N.J Schepers, arts-onderzoeker PWN*
- ESCAPE en CARE - *Y. Issa, arts-onderzoeker PWN*
- FLUYT - *Dr. E.J.M. van Geenen, MDL-arts, Radboudumc*

10.55 Wrap-up en afsluiting voorzitter

11.00 Koffie en thee in de expositiehal

Vrije voordrachten Nederlandse Vereniging voor Hepatologie — Auditorium

Voorzitters: K.J. van Erpecum en D. Sprengers

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

11.30 Surveillance for hepatocellular carcinoma is associated with better survival: Results from a large cohort in the Netherlands (p. 107)

S. van Meer[1], R.A. de Man[2], M.J. Coenraad[3], D. Sprengers[2], C.M.J. van Nieuwkerk[4], M.G.H. van Oijen[1], H.J. Klümpen[5], P.L.M. Jansen[6], 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, Erasmus Medical Center, Rotterdam, [3]Dept of Gastroenterology and Hepatology, Leiden University Medical Center, Leiden, [4]Dept of Gastroenterology and Hepatology, VU University Medical Center, Amsterdam, [5]Dept of Medical Oncology, [6]Dept of Gastroenterology and Hepatology, Academic Medical Center Amsterdam, Amsterdam, The Netherlands

11.40 Sub-stratification of hepatocellular carcinoma risk in men with primary biliary cirrhosis: results of an international multicenter study (p. 108)

W.J. Lammers[1], P.J. Trivedi[2], H.R. van Buuren[1], A. Floreani[3], A. Parés[4], A. Cheung[5], C.Y. Ponsioen[6], C. Corpechot[7], M.J. Mayo[8], P. Invernizzi[9], P.M. Battezzati[10], F. Nevens[11], A.L. Mason[12], K.V. Kowdley[13], K. Li[2], T. Bruns[2], M.H. Imam[14], T. Kumagi[2,15], N. Cazzagon[3], I. Franceschet[3], L. Caballeria[4], K. Boonstra[6], R. Poupon[7], A. Lleo[9], K.D. Lindor[16], H.L.A. Janssen[5], B.E. Hansen[1], G.M. Hirschfield[2], [1]Dept of Gastroenterology and Hepatology, Erasmus University Medical Center, Rotterdam, The Netherlands, [2]NIHR Biomedical Research Unit and Centre for Liver Research, University of Birmingham, Birmingham, UK, [3]Dept of Surgery, Oncology and Gastroenterology, University of Padua, Padua, Italy, [4]Liver Unit, Hospital Clínic, CIBERehd, IDIBAPS, University of Barcelona, Barcelona, Spain, [5]Liver Clinic, Toronto Western & General Hospital, University Health Network, Toronto, ON, Canada, [6]Dept of Gastroenterology and Hepatology, Academic Medical Center, Amsterdam, The Netherlands, [7]Centre de Référence des Maladies Inflammatoires des Voies Biliaires, Hôpital Saint-Antoine, APHP, Paris, France, [8]Digestive and Liver diseases, UT Southwestern Medical Center, Dallas, TX, USA, [9]Liver Unit and Center for Autoimmune Liver Diseases, Humanitas Clinical and Research Center, Rozzano (MI), Italy, [10]Dept of Health Sciences, Università degli Studi di Milano, Milan, Italy, [11]Dept of Hepatology, University Hospitals Leuven, KULeuven, Leuven, Belgium, [12]Divison of Gastroenterology and Hepatology, University of Alberta, Edmonton, AB, Canada, [13]Liver Center of Excellence, Digestive Disease Institute, Virginia Mason, Medical Center, Seattle, WA, USA, [14]Dept Gastroenterology and Hepatology, Mayo Clinic, Rochester, MN, USA, [15]Dept of Gastroenterology and Metabology, Ehime University graduate School of Medicine, Ehime, Japan, [16]Arizona State University, Phoenix, AZ, USA

11.50 The role of the routine bone scintigraphy in detecting bone metastasis in hepatocellular carcinoma (p. 109)

J.C. Kerbert[1], I. al Younis[2], P. Dibbets-Schneider[2], H.W. Verspaget[1], B. van Hoek[1], M.J. Coenraad[1], [1]Dept of Gastroenterology and Hepatology and [2]Dept of Nuclear Medicine, Leiden University Medical Center, Leiden, The Netherlands

12.00 Long-term follow-up of patients hospitalized for alcoholic hepatitis (p. 110)

E. Wieten[1], J.T. Brouwer[1], R. Quispel[1], B.J Veldt[1], [1]Dept of Gastroenterology and Hepatology and Internal Medicine, Reinier de Graaf Hospital, Delft, The Netherlands

Vrije voordrachten Nederlandse Vereniging voor Hepatologie **Auditorium**

12.10 Polymorphisms at PRSS1–PRSS2 and CLDN2–MORC4 loci associate with alcoholic and non-alcoholic chronic pancreatitis in Europe (p. 111)
Multicentre study, presenting author M.H.M Derikx[1&], [1]Dept of Gastroenterology and Hepatology, Radboud University Medical Center, Nijmegen, The Netherlands*

12.20 Single-session aspiration sclerotherapy results in progressive regression of hepatic cysts and symptomatic relief: a prospective cohort (p. 112)
T.F.M. Wijnands[1], T.J.G. Gevers[1], J.P.H. Drenth[1], [1]Dept of Gastroenterology and Hepatology, Radboud University Medical Center, Nijmegen, The Netherlands

State of the Art Lecture **Auditorium**

12.30 "Surveillance, diagnosis and treatment of hepatocellular carcinoma: Current practice and future challenges"
Dr. K.J. van Erpecum, MDL-arts, UMC Utrecht

13.00 Lunchbuffet in de expositiehal

Vrije voordrachten Sectie Gastrointestinale Oncologie **Auditorium**

Voorzitters: J.M. van Dieren en C.C.G. van Enckevort

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

14.00 The relevance of the location (including the celiac trunk region) of involved nodes in patients with cancer of the distal esophagus or gastro-esophageal junction (p. 113)
S.M. Lagarde[1], M.C.J. Anderegg[1], S.S. Gisbertz[1], S.L. Meijer[2], M.C. Hulshof[3], J.J. Bergman[4], H.W.M. van Laarhoven[5], M.I. van Berge Henegouwen[1], [1]Dept of Surgery, [2]Dept of Pathology, [3]Dept of Radiotherapy, [4]Dept of Gastroenterology and [5]Dept of Medical Oncology Academic Medical Center, Amsterdam, The Netherlands. *SM Lagarde is supported by a Koningin Wilhelmina Fonds (KWF, Dutch Cancer Society) Fellowship, UVA 2013-5853*

14.10 FIT-based colorectal cancer screening in subjects aged 50-54 years (p. 114)
S.A.V. Nieuwenburg[1], E.H. Schreuders[1], E.J. Grobbee[1], I. Lansdorp-Vogelaar[1], M.J. Bruno[1], E.J. Kuipers[1], M.C.W. Spaander[1], [1]Dept of Gastroenterology and Hepatology, Erasmus MC University Medical Center, Rotterdam, The Netherlands

14.20 Loss of KCNQ1 expression in stage II and III colon cancer is associated with poor prognosis (p. 115)

S.H. den Uil[1], H. Bril[2], H.B.A.C. Stockmann[3], E.J.Th. Belt[4], R.T. Cormier[5], V.M.H. Coupé[6], J.A.M. Belien[1], N.C.T. van Grieken[1], G.A. Meijer[1], R.J.A. Fijneman[1], [1]Dept of Pathology, VU University Medical Center, Amsterdam, The Netherlands, [2]Dept of Pathology, Kennemer Gasthuis, Haarlem, The Netherlands, [3]Dept of Surgery, Kennemer Gasthuis, Haarlem, The Netherlands, [4]Dept of Surgery, Erasmus MC, Rotterdam, The Netherlands, [5]Dept of Biomedical Sciences, University of Minnesota Medical School, Duluth, MN, USA, [6]Dept of Epidemiology and Biostatistics, VU University Medical Center, Amsterdam, The Netherlands

14.30 Impact of surveillance for long-segment Barrett's esophagus on tumor stage and survival of patients with neoplastic progression: results of a large multicenter prospective cohort study (p. 116)

F. Kastelein[1], S. van Olphen[1,2], E.W. Steyerberg[3], M.J. Bruno[1], M.C.W. Spaander[1] on behalf of the ProBar-study group, [1]Dept of Gastroenterology and Hepatology, [2]Dept of Pathology and [3]Dept of Public Health, Erasmus University MC, Rotterdam, The Netherlands

14.40 Evaluating the current endoscopy surveillance guideline in hereditary diffuse gastric cancer (p. 117)

A. Cats[1], O. Balague Ponz[2], L.E. van der Kolk[3], C. Dommering[4], L. Saveur[1], J.W. van Sandick[5], S. Vanhoutvin[1], [1]Dept of Gastroenterology, [2]Dept of Pathology, [3]Family Cancer Clinic, The Netherlands Cancer Institute, Amsterdam, [4]Dept of Genetics, VU University Medical Center, Amsterdam, [5]Dept of Surgical Oncology, Netherlands Cancer Institute, Amsterdam, The Netherlands

14.50 Oxaliplatin related sinusoidal obstruction syndrome is correlated with down-regulation of miR-150 and miR-21 (p. 118)

J. Zhao[1], S.S. Rensen[1], C.P.H. Vreuls[2], M. van den Broek[1], C.H.C. Dejong[1], S.W. Olde Damink[1], [1]Dept of Surgery, Maastricht University Medical Centre and NUTRIM School of Nutrition, Toxicology and Metabolism, Maastricht University, [2]Dept of Pathology, Maastricht University Medical Centre, Maastricht, The Netherlands

15.00 Repeated two-sample FIT screening for colorectal cancer (p. 119)

E.H. Schreuders[1], S.A.V. Nieuwenburg[1], E.J. Grobbee[1], A. Kapidzic[1], A.J. van Vuuren[1], I. Lansdorp-Vogelaar[2], M.J. Bruno[1], E.J. Kuipers[1], M.C.W. Spaander[1], [1]Dept of Gastroenterology and Hepatology, Erasmus MC University Medical Center, Rotterdam, [2]Dept of Public Health, Erasmus MC University Medical Center, Rotterdam, The Netherlands

15.10 The protective effects of fasting on irinotecan induced side effects; a pharmacokinetic study (p. 120)

S.A. Huisman[1], P. de Bruijn[2], I.M. Ghobadi Moghaddam-Helmantel[2], J.N.M. IJzermans[1], E.A. Wiemer[2], R.H.J. Mathijssen[2], R.W.F. de Bruin[1], [1]Dept of Surgery, Laboratory for Experimental Transplantation and Intestinal Surgery, University Medical Center, Rotterdam, [2]Dept of Medical Oncology, Erasmus MC Cancer Institute, University Medical Center, Rotterdam, The Netherlands

15.20 Survival after pathologic complete response in patients with cancer of the esophagus or gastro-esophageal junction (p. 121)

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

15.30 Survival analysis of resected non-functioning pancreatic neuroendocrine tumors, does size matter? (p. 122)

A.P.J. Jilesen[1], C.H.J. van Eijck[2], F.J. van Kemenade[3], S. van Eeden[4], J.Verheij[4], K.H. in 't Hof[1], O.R.C. Busch[1], T.M. van Gulik[1], D.J. Gouma[1], E.J.M. Nieveen van Dijkum[1], [1]Dept of Surgery, Academic Medical Center, Amsterdam, [2]Dept of Surgery, Erasmus Medical Center, Rotterdam, [3]Dept of Pathology, Erasmus Medical Center, Rotterdam, [4]Dept of Pathology, Academic Medical Center, Amsterdam, The Netherlands

15.40 Follow-up of patients with T1 colorectal carcinoma is inadequate (p. 123)

A. Overwater[1], K. Kessels[1], P.D. Gobardhan[3], T.D.G. Belderbos[1], M.M. Lacle[4], G.J.A. Offerhaus[4], M.G.H. van Oijen[1], P.D. Siersema[1], T.C.J. Seerden[2], L.M.G. Moons[1], [1]Dept of Gastroenterology and Hepatology, University Medical Center Utrecht, Utrecht, [2]Dept of Gastroenterology and Hepatology, Amphia Hospital, Breda, [3]Dept of Surgery, Amphia Hospital, Breda, [4]Dept of Pathology, University Medical Center Utrecht, Utrecht, The Netherlands

15.50 Percutaneous hepatic perfusion with melphalan in treating unresectable liver metastases of colorectal cancer and uveal melanoma: a phase I/II trial (p. 124)

E.M. de Leede[1], M.C. Burgmans[2], C.H. Martini[3], J. Vuyk[3], F.G.J. Tyl[4], H.W. Kapiteijn[5], A.J. Gelderblom[5], A.R. van Erkel[2], C.J.H. van de Velde[1], C. Verhoef[6], A.L. Vahrmeijer[1], [1]Dept of Surgery, [2]Dept of Radiology, [3]Dept of Anesthesiology, [4]Dept of Extra Corporeal Circulation and [5]Dept of Medical Oncology, Leiden University Medical Center, Leiden, [6]Dept of Surgery, Erasmus Medical Center, Rotterdam, The Netherlands

16.00 Einde programma

Symposium Sectie Neurogastroenterologie en Motiliteit — Baroniezaal

Voorzitters: D.P. Hirsch en R.J.F. Felt-Bersma

Symposium New upper GI motility tests: how clinically relevant are they?

09.30 High-resolution oesophageal manometry
Dr. A.J. Bredenoord, MDL-arts, AMC, Amsterdam

09.52 Gastric motility and emptying tests
Dr. J.M. Conchillo, MDL-arts, MUMC, Maastricht

10.14 Ambulatory oesophageal impedance monitoring
Prof. dr. D. Sifrim, Professor of Gastrointestinal Physiology, Queen Mary University of London

10.38 Impedance planimetry and telemetric pH monitoring
Prof. dr. A.J.P.M. Smout, MDL-arts, AMC, Amsterdam

11.00 Einde symposium, koffie en thee in de expositiehal

Vrije voordrachten Sectie Neurogastroenterologie en Motiliteit — Baroniezaal

Voorzitters: J.M. Conchillo en A.J.P.M. Smout

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

11.30 Inleiding door de voorzitter

11.40 An expert panel-based study on recognition of gastroesophageal reflux in difficult esophageal impedance tracings (p. 125)
*M.J. Smits[1], C.M. Loots[1], M.P. van Wijk[1], T.I. Omari[2], M.A. Benninga[1], Andre Smout[3], *On behalf of the impedance GER pattern recognition consensus group, [1]Dept of Pediatric Gastroenterology and Nutrition, Emma Children's Hospital Academic Medical Center, Amsterdam, The Netherlands, [2]Centre for Paediatric and Adolescent Gastroenterology, CYWHS, Women's and Children's Hospital, Adelaide, SA, Australia, [3]Dept of Gastroenterology and Hepatology Academic Medical Center, Amsterdam, The Netherlands*

11.50 Rowing and the induction of gastro-esophageal reflux (p. 126)

W.C.E.M. Kremer[1], R.E. Verbeek[1], J.W.P.M. van Baal[1], B. Glazenburg[2], M.G.H. van Oijen[1], P.D. Siersema[1], [1]Dept of Gastroenterology and Hepatology, University Medical Center Utrecht, Utrecht, [2]Previously worked at the Dept of Ear, Nose and Throat, Bronovo, The Hague, The Netherlands

12.00 Pressure-flow characteristics of normal and disordered esophageal motor patterns: A pediatric study (p. 127)

M.M.J. Singendonk[1,2], S. Kritas[2], C. Cock[3], L. Ferris[3], L. McCall[2], N. Rommel[4,5], M.P. van Wijk[1], M.A. Benninga[1], D. Moore[2], T.I. Omari[2,5,6], [1]Dept of Pediatric Gastroenterology and Nutrition, Emma Children's Hospital Academic Medical Center, Amsterdam, The Netherlands, [2]Gastroenterology Unit, Women's and Children's Health Network, North Adelaide, Australia, [3]Dept of Gastroenterology and Hepatology, Repatriation General Hospital, South Australia, Australia, [4]Dept of Neurosciences, ExpORL, University of Leuven, Leuven, Belgium, [5]Translational Research Center for Gastrointestinal Diseases, University of Leuven, Belgium, [6]School of Medicine, Flinders University, Bedford Park, South Australia, Australia

12.10 Clinical and endoscopic characteristics can help distinguish pseudo-achalasia from achalasia (p. 128)

I.M. van Raath[1], F.A.M. Ponds[1], A.J.P.M. Smout[1], A.J. Bredenoord[1], [1]Dept of Gastroenterology and Hepatology, Academic Medical Center Amsterdam, Amsterdam, The Netherlands

12.20 IBS and over-reporting of abdominal pain in retrospective questionnaires: advantages of Experience Sampling Method as new digital tool in symptom measurement (p. 129)

Z. Mujagic[1], C. Leue[2], L. Vork[1], R. Lousberg[2], M.A. Hesselink[1], J. van Os[2], A.A.M. Masclee[1], J.W. Kruimel[1], [1]Division of Gastroenterology and Hepatology, Dept of Internal Medicine, Maastricht University Medical Center, Maastricht, [2]Dept of Psychiatry and Medical Psychology, Maastricht University Medical Center, Maastricht, The Netherlands

12.30 Are faecal chromogranin A levels increased in irritable bowel syndrome? (p. 130)

H. Rashid[2], Z. Mujagic[1,2], E.F. Tigchelaar[1,3], A. Smolinska[1,4], S. Zhernakova[1,3], A. Baranska[1,4], M.A. Swertz[1,3], F-J van Schooten[1,4], C. Wijmenga[1,3], A.A.M. Masclee[1,2], D.M.A.E. Jonkers[1,2], [1]Top Institute Food and Nutrition (TIFN), Wageningen, [2]Division of Gastroenterology and Hepatology, Dept of Internal Medicine - NUTRIM School for Nutrition, Toxicology and Metabolism - Maastricht University Medical Center, Maastricht, [3]Dept of Genetics, University of Groningen, University Medical Center Groningen, Groningen, [4]Dept of Toxicology - NUTRIM School for Nutrition, Toxicology and Metabolism - Maastricht University Medical Center, Maastricht, The Netherlands

12.40 Evaluation of the DHD-FFQ, a tool to assess diet quality, in patients with bowel related diseases (p. 131)

S. van Geel[1], J.H.M. de Vries[1], J.F.M. Huitinck[1], B.J.M. Witteman[1], [1]Wageningen University, Wageningen, and Hospital Gelderse Vallei, Ede, The Netherlands

12.50 First experience with the Low FODMAP diet in Dutch IBS patients (p. 132)

M.H.H. Wassink[1], J. Stevens[2], E.C. Kroon[2], L.A. van der Waaij[1], [1]Dept of Gastroenterology and [2]Dept of Dietetics, Martini Hospital, Groningen, The Netherlands

13.00 Lunchbuffet in de expositiehal

Meet the expert sessie **Zaal 81**

11.30 **Levercirrose**
Prof. dr. J.P.H. Drenth, MDL-arts, Radboud UMC, Nijmegen en
Dr. R.A. de Man, MDL-arts, Erasmus MC, Rotterdam

13.00 Lunchbuffet in de expositiehal

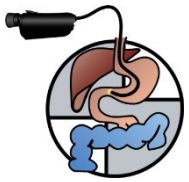
Meet the expert sessie **Parkzaal**

11.30 **IBD**
Prof. dr. G.R.A.M. D'Haens, MDL-arts, AMC, Amsterdam en
Dr. B. Oldenburg, MDL-arts, UMC Utrecht

13.00 Lunchbuffet in de expositiehal

Programma V&VN MDL **Beneluxzaal**

Beroepsvereniging van zorgprofessionals
Maag Darm Lever



Voorzitter: T. Korpershoek

09.50 *Inloop – Bestuur aanwezig voor vragen*

10.10 Opening door de voorzitter

10.15 CZO en de toekomst van het verpleegkundig beroep
K. Boonstra, directeur-bestuurder College Zorg Opleidingen

10.40 Laboratoriumdiagnostiek galwegen/lever
Dr. P.J.F. de Jonge, MDL-arts i.o., Erasmus MC, Rotterdam

11.05 Antitrombotische therapie en endoscopische procedures
Dr. F.T.M. Peters, MDL-arts, UMCG, Groningen

11.25 MDL Interventieradiologie, nieuwe technieken
H.J. Scheffer, arts-onderzoeker, VU medisch centrum, Amsterdam

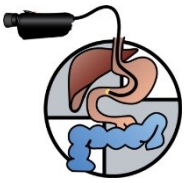
11.50 BVO Darmkanker Update
M. van Wieren, programmamedewerker RIVM,
Centrum voor Bevolkingsonderzoek

12.15 Lunchbuffet in de Kempenhal

Vrijdag 10 oktober 2014

Middagprogramma Endoscopieverpleegkundigen — Beneluxzaal

Beroepsvereniging van zorgprofessionals
Maag Darm Lever



Voorzitter: W. Kok

13.45 ERCP - bij maligniteit en de toekomst
Dr. M.E. Tushuizen, MDL-arts, Ziekenhuis Amstelland, Amstelveen

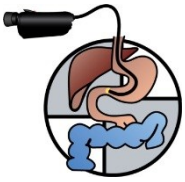
14.15 Er zit een stuk vlees klem
Dr. A.J. Bredenoord, MDL-arts, AMC, Amsterdam

14.45 Hemospray
Prof. dr. J.J.G.H.M. Bergman, MDL-arts, AMC, Amsterdam

15.15 Einde programma

Middagprogramma Lever-/IBD-/Kliniek/voeding — Parkzaal

Beroepsvereniging van zorgprofessionals
Maag Darm Lever



Voorzitters: H. Huiskamp en E. Ruiter

13.45 Hepatitis, what's new?
Prof. dr. J.P.H. Drenth, MDL-arts, Radboudumc, Nijmegen

14.15 Klinisch redeneren in de kliniek, casuïstiek
Mw. L. Komen-Biemond, PA i.o., Radboudumc, Nijmegen

14.45 Dehydratie bij ileostoma; incidentie en voorspellende factoren
Mw. W Kuin, M-ANP, Antoni van Leeuwenhoekhuis, Amsterdam

15.15 Einde programma

ABSTRACTS

Effectiveness of cognitive behavioural therapy on quality of life, anxiety and depression among patients with inflammatory bowel disease: a multicentre randomised controlled trial

F. Bennebroek Evertsz'[1], M.A.G. Sprangers[1], P.C.F. Stokkers[2], R. Sanderman[3], C.L.H. Bockting[4], K. Sitnikova[1], C.Y. Ponsioen[5], J.F.W.M. Bartelsman[5], A.A. van Bodegraven[6], S. Fischer[7], A.C.T.M. Depla[8], R.C. Mallant[9], H. Burger[10], [1]Dept of Medical Psychology, Academic Medical Center, Amsterdam, [2]Dept of Gastroenterology, Sint Lucas Andreas Hospital, Amsterdam, [3]Dept of Health Psychology, University Medical Center Groningen, University of Groningen, Groningen, [4]Dept of Clinical Psychology, University of Groningen, Groningen, [5]Dept of Gastroenterology, Academic Medical Center, Amsterdam, [6]Dept of Gastroenterology and Hepatology, VU University Medical Center Amsterdam, Amsterdam, Dept of Internal Medicine, Geriatrics and Gastroenterology, ORBIS Medical Centre, Sittard-Geleen, [7]Dept of Medical Psychology, Slotervaart Hospital, Amsterdam, [8]Dept of Gastroenterology and Hepatology, Slotervaart Hospital, Amsterdam, [9]Dept of Gastroenterology and Hepatology, Flevo Hospital, Almere, [10]Dept of General Practice, University Medical Center Groningen, University of Groningen, Groningen, The Netherlands

Inflammatory Bowel Disease (IBD) patients report poorer quality of life (QoL) and more anxiety and depressive symptoms than controls from the general population. Despite high levels of anxiety and depressive symptoms and poor quality of life, psychiatric complaints in IBD patients are undertreated. Screening for and treatment of psychiatric symptoms should become an integral part of IBD medical care. Cognitive behavioral therapy (CBT) is effective for anxiety and depression, but questionable in case of co-morbidity with IBD. Therefore, an adapted new CBT specifically designed for IBD patients was developed. The objective of this study is to evaluate the effectiveness of adapted CBT on QoL, anxiety and depression in IBD-patients with a poor QoL. In this presentation the results from a randomized controlled trial on the effectiveness of CBT in IBD patients with a poor quality of life will be presented. Patients were randomly assigned to CBT (n = 59) versus a waiting-list control condition (n = 59). The last group received CBT after 3,5 months. The Inflammatory Bowel Disease Questionnaire (IBD-Q) was used to assess primary outcome of the intervention. It measures health-related quality of life and consists of 32 items assessing four dimensions; bowel symptoms, systemic symptoms, emotional functioning, and social functioning. Secondary outcome measures were symptoms of anxiety, depression and general quality of life. CBT had a positive effect on disease-specific-QoL, depression, anxiety and generic QoL. Conclusion: IBD-specific CBT is effective in improving QoL, anxiety and depression in IBD-patients with a poor QoL. Clinicians should consider incorporating screening for poor mental QoL and consider reference to CBT. In addition, fragments of this targeted CBT for IBD patients will be demonstrated (DVD).

Intestinal microbiota and colorectal cancer: Towards new prevention and screening strategies

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Colorectal cancer (CRC) affects 1.2 million people worldwide. Evidence supports diverse roles of the intestinal microbiota in CRC: 1) CRC-driver bacteria can promote CRC by direct mutagenic effects on the colon; 2) CRC-passenger bacteria are enriched in the cancer microenvironment. The "driver" Enterotoxigenic Bacteroides fragilis (ETBF) has been associated with inflammatory bowel disease and CRC and is pro-carcinogenic through the Bacteroides fragilis toxin (bft); the "passenger" Streptococcus gallolyticus causes infections in colorectal cancer patients, but is hardly ever found in the gut of healthy controls. Our goal was to determine the extent of mucosal exposure to the bft gene in tumor and normal tissues from CRC patients (cases) and biopsies from controls undergoing outpatient colonoscopy (controls). Single bacterial colonies isolated anaerobically from colon tissue were tested for the bft gene. Next, the humoral immune response against BFT and S. gallolyticus surface antigens (pilin-like structures) was determined with ELISA in the blood of cases and controls to determine their immunodiagnostic potential. The mucosa of cases (n=26) was significantly more often bft-positive in samples from both ascending (85.7%) and descending (91.7%) colon compared to controls (n=49) (53.1 and 55.5%; $p < 0.05$ respectively). Furthermore, there was a trend toward increased bft detection in mucosa from late-stage (n=12) vs. early-stage (n=11) CRC patients (100% vs. 78.6%, respectively; p=0.093). However, the humoral immune response against BFT in cases (n=19) was not significantly different from controls (n=29) (relative median OD: 0.397(IQR 0.771) and 0.390(IQR 0.427); p=0.255). Conversely, the humoral immune response against 4 cell surface antigens of S. gallolyticus was highly selective in cases (n=93); a multimarker approach could identify a substantial number of cases (n=29) with a sensitivity of up to 43% and specificity of 78%.

Conclusions: The bft gene is frequently identified in healthy controls and is almost universal in colon mucosa of CRC patients, especially late stage. Altogether, this suggests that bft exposure is common and may be a risk factor for developing CRC. However, since bft detection in controls is common, the humoral immune response against BFT could not discriminate between cases and controls. However, the multi-marker approach against 4 cell surface antigens of S. gallolyticus could discriminate a subset of cases from controls. This argues in favor of developing extended multiplex assays based on specific antigens from CRC-associated passenger bacteria that are not associated with the mucosa in healthy controls.

Females are better protected from gut injury during ischemia-reperfusion than males: sex matters

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Gender differences in response to ischemia-reperfusion (IR) have been recognized in cardiovascular and cerebral systems. However, it is unknown if sexual dimorphism exists in human intestinal IR, a frequent occurring and highly lethal disease. Recognition of such differences and elucidation of underlying pathophysiological mechanisms could lead to more evidence-based medicine for females, and the development of novel therapeutic strategies to reduce IR-associated morbidity and mortality. Therefore, we aimed to investigate sex differences in human intestinal mucosal responses to IR. Intestinal IR was studied using a human experimental model. In 16 patients (M8:F8) undergoing pancreaticoduodenectomy, an isolated part of jejunum was subjected to 45 minutes of ischemia (45I) followed by 30 (30R) or 120 minutes of reperfusion (120R). Intestinal tissue was collected at all time points to assess morphology (hematoxylin/eosin (HE)) and arteriovenous (V-A) concentration differences of intestinal fatty acid binding protein (I-FABP) were measured using ELISA to quantify enterocyte damage. Endoplasmic reticulum (ER) stress was analyzed by determining X-box binding protein-1 (XBP1) splicing. Immunohistochemistry for myeloperoxidase (MPO), lysozyme and M30 was performed to assess neutrophil influx and Paneth cell apoptosis. QPCR was used to determine inflammatory cytokine expression. Results were analyzed using Mann-Whitney U tests. Data are presented as mean±SEM. HE staining revealed more extensive small intestinal epithelial damage in males compared to females. In line, I-FABP V-A concentrations differences were higher in males compared to females, both at 45I (233.9±73.3 ng/ml vs 55.5±18.3 ng/ml, P<.05) and at 45I30R (79.2±19.4 ng/ml vs 24.4±6.6 ng/ml, P<.05). Furthermore, male jejunum showed higher XBP1s/XBP1u ratios at 45I30R than female jejunum (4.3±0.8 vs 2.2±0.4, P<.05), indicating enhanced ER stress in males. This was associated with a higher number of apoptotic Paneth cells per crypt in male subjects compared to females at 45I (5.8±1.2 vs 1.7±0.4, P<.05) and 45I30R (18.3±2.9 vs 7.6±1.9, P<.05). Furthermore, males had a more pronounced influx of neutrophils per villus at 45I30R (6.9±1.2 vs 3.6±0.6, P<.05) and a higher relative mRNA expression of cytokines TNF-α and IL-10 after 45I120R, compared to females (2.6 fold and 6.4 fold respectively, P<.05).

In conclusion, the human female small intestine is better protected from IR-induced villus tip and crypt damage than the male small intestine, and correspondingly displays notably less inflammatory responses.

Intergenerational change in Helicobacter pylori colonization in children living in a multi-ethnic Western population

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Background & Aims: Helicobacter pylori colonization rates in childhood have declined in Western populations, but it is unknown whether this trend is similar in children of non-Western ethnic backgrounds, who are born in a Western country. Insight into colonization and transmission of H. pylori could improve approaches to assessing H. pylori-related diseases. We aimed to identify H. pylori status in mothers and their children, and to determine both mother-to-child transmission and factors associated with loss of H. pylori in one generation. Methods: Antibodies against H. pylori and cytotoxin-associated gene A (CagA) were measured in mothers and children participating in a population-based prospective cohort study. Information on demographics, maternal and child's characteristics was collected using questionnaires. Logistic regression analysis was used to assess factors associated with loss of H. pylori, including the following: gender, ethnicity, mother's educational level, delivery mode, breastfeeding, number of older siblings, day-care attendance, and cumulative antibiotic exposures.
Results: H. pylori and CagA status were determined in 3,185 mothers and their children. In mothers (mean age of 30.5 ±5.0 years), the overall H. pylori colonization rate was 42%, compared to 10% ($p<0.001$) in their children (mean age of 6.2 ±0.5 years). An H. pylori-positive mother was associated with an H. pylori-positive child (OR 3.22; 95% CI 2.52-4.12). Overall, the H. pylori prevalence decreased 76% comparing mothers and their children. A significant and consistent dec in both H. pylori^{+}CagA^{-} and H. pylori^{+}CagA^{+}-strains was observed across all nine ethnic groups studied. Multivariate analysis of the loss of H. pylori in children with an H. pylori-positive mother (n = 1,328) revealed male gender (OR 1.64; 95% CI 1.21-2.23), higher maternal education level (OR 1.78; 95% CI 1.15-2.76), and no older siblings (OR 1.37; 95% CI 1.01-1.88) independently associated with an H. pylori-negative child.
Conclusions: We identified a large dec in H. pylori colonization rate in children living in a European city. The observed drop was uniform across all ethnic groups, implying the importance of environmental factors in H. pylori transmission in modern cities, independent of ethnicity.

Gastric juice composition and acid suppression in pediatric gastroesophageal reflux disease

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Introduction: Gastric acid suppression is justified to prevent severe gastro esophageal reflux (GER) disease related complications. However, it does not reduce the total amount and proximal extent of GER in the esophagus and non-acid components are able to induce (extra-esophageal) GER symptoms as well. No data on the composition of gastric juice (GJ) in children using gastric acid suppression exists. We therefore aimed to assess whether the composition of gastric juice in children using proton pump inhibitors (PPIs) differs, compared to that of their controls. Methods: Infants and children (0-18 years) on proton pump inhibitors (PPIs) for at least six weeks and a control group not using anti reflux medication, were included. GJ was obtained through an existing nasogastric or a percutaneous endoscopic gastrostomy tube/ Mic-key gastrostomy. In the collected GJ (5 ml), pH, pepsin activity, bile salts and endotoxin (LPS) levels were determined. Pepsin was measured using a fluorometric assay using 4-Methyl- Coumaryl-7-Amide (MCA) substrate with/without pepstatin. Concentrations of deconjugated and taurine/glycine-conjugated bile salts were assessed by reverse-phase HPLC. Levels of LPS were determined using the spectrophotometric Limulus Amebocyte Lysate assay. Results: GJ was analyzed from 16 children with (median: 3.8 yrs, range: 17.6 years) and 16 children (4.0 yrs, range:16.0) without PPI therapy. Median duration of PPI treatment was 24 weeks (range: 514 weeks). Gastric pH was 5.0 (range: 5.0) and 1.0 (range: 4.5) in the PPI and control group respectively ($p < 0.001$). Pepsin, unconjugated bile salts, and endotoxin were not significantly different in the two groups. Total taurine conjugated bile salts, and specifically taurocholate, was significantly higher in the PPI group ($p=0.01$ and $p=0.005$). pH and concentration of deconjugated bile and conjugated bile salts were significantly associated($p=0.006$ and $p=0.02$). Endotoxin and bile salts were not significantly associated.
Conclusion: Taurine conjugated bile acids are significantly higher in children chronically using PPIs compared to controls. Moreover acidity of gastric pH correlated negatively with deconjugated and conjugated bile salts. These findings imply that GJ under chronic proton pump inhibition contains non- acid components potentially harmful to esophageal mucosa and bronchial tissue.

Practice, indication and predictive factors of second look colonoscopy in a screening population

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Screening programs for colorectal cancer (CRC) are implemented worldwide. European guidelines recommend fecal immunochemical testing for primary screening followed by colonoscopy in case of a positive fecal immunochemical test (FIT, i.e. iFOBT). Although there are many studies focusing on the quality aspects of colonoscopy, no information is currently available on the practice of second look colonoscopies in a screening setting. These colonoscopies are a substantial burden for both patients and the health care system. This is the first study to evaluate the number, indications and predictive indicators of second look colonoscopies following a screening colonoscopy. We prospectively registered all colonoscopies performed in average risk subjects, aged 50-74 years, who were approached for a maximum of three rounds of FIT screening. A second look colonoscopy was defined as any colonoscopy performed following a screening colonoscopy within one year. A total of 1216 patients with a positive FIT underwent colonoscopy (57.4% male, median age 63 years (IQR 57-68 years), median fecal Hb level 142 ng/ml (IQR 77-426 ng/ml)). Unadjusted cecal intubation rate was 96% and the overall adenoma detection rate was 55%. A total of 97 (8.0%) patients underwent a second look colonoscopy within one year, with a median time between the index colonoscopy of 61 days (IQR 35-99 days). Twenty-four patients (2.0%) underwent more than one second look colonoscopy (range 2-9). The most frequently reported reasons for a second look colonoscopy were assessment of completeness of removal of a neoplastic lesion (41.2%), need for further polypectomy (30.9%), and poor bowel preparation (15.5%). In multivariate analysis, the level of fecal hemoglobin was the only significant predictor for the need of a second look colonoscopy.
Conclusion: in this population-based screening program using FIT, a second look colonoscopy was performed in 8% of the patients within one year. In over two thirds of the patients a second look colonoscopy was performed for control of completeness of removal of a neoplastic lesion or for polypectomy. A higher fecal hemoglobin level was the only independent predictor in identifying patients at risk for a second look colonoscopy and complex polypectomy. Hence, identifying patients at risk of advanced neoplasia could greatly reduce the number of second look colonoscopies and could be beneficial regarding the costs and burden of CRC screening programs.

Buccal swabs are useful for human leukocyte antigen typing in celiac disease diagnostics

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Human leukocyte antigen (HLA) typing is an essential step in the diagnostic algorithm for celiac disease (CD) and is also frequently used for screening purposes. Collection of blood for HLA typing is invasive, accompanied with emotional impact especially in children, labour-intensive and costly. Genetic technological progress now enables HLA typing from buccal cell samples. This study evaluated the reliability and feasibility of HLA typing for CD-associated HLA polymorphisms in high-risk children using buccal swabs. Blood and buccal swabs of 77 children with high risk for CD, were collected in this cohort study, either by the investigator at the outward clinic or by the patient or parent at home. To evaluate the possibility of self-administration without replacement of tests within families, three complete families performed the test at home. DNA was extracted using an adapted QIAamp method. Quality and quantity of DNA was recorded. The reliability of buccal-cell-derived DNA for HLA-DRB1, -DQA1, and -DQB1 typing was examined at low and high-resolution level, using Sequence Specific Oligonucleotide (SSO) and Sequence Based Typing (SBT). DNA isolation using buccal swabs yielded a sufficient quality and amount of DNA to perform HLA-DQ typing in all but one individual (98.5%). HLA typing on buccal-cell-derived DNA was identical to typing on blood-derived DNA, also for the self-administered samples.
Conclusions: Buccal swabs are a minimal-invasive, accurate, and relatively cheap method for HLA typing of CD-associated risk genes for both diagnostic and screening purposes, and can be performed as a self-administrated test.

Do children screened with fecal calprotectin have less negative endoscopies than those who did not undergo this screening?

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Objective: Since 2009 we use fecal calprotectin (fCal) as a screening test to select children with a high probability of inflammatory bowel disease (IBD) for endoscopy. Before that time we subjected children to endoscopy when at least one of the following symptoms was present: persistent diarrhea, recurrent abdominal pain with diarrhea, rectal blood loss or perianal disease. After the introduction of fCal the same decision rule was applied, provided that the fCal level was > 50 ug/g feces. We evaluated whether patients screened with fCal had less negative endoscopies than those who did not undergo fCal screening. Methods: We used a simple before-and-after design. A convenience sample of children aged younger than 18 years who had their diagnostic gastro- and colonoscopy in our center between Jan 2006 and Dec 2008 (before cohort) were compared with a group that was scoped between Jul 2010 and Jun 2013 (after cohort). Children with a high suspicion for juvenile polyps (isolated rectal blood loss without other GI-symptoms) were excluded from the analysis. Negative endoscopy was defined as the absence of any macroscopic or histological abnormalities. Results: A total of 139 patients were included; 51 in the before cohort and 88 in the after cohort. There were no differences in the presenting symptoms between both cohorts. The percentage of negative endoscopies in the before and after cohort did not differ, respectively 29% (95% confidence interval (CI) 17 to 42) and 33% (95% CI 23 to 43). IBD was diagnosed in 63% (95%CI 50 to 76) in the before and 64% (95%CI 54 to 74) in the after cohort. In the after cohort 77 of 88 patients had elevated fCal levels; 11 children underwent endoscopy despite a normal fCal value. None of these patients were ultimately diagnosed with IBD; 10 had no abnormalities and 1 had a juvenile polyp. In the 77 patients with elevated fCal, 56 were diagnosed with IBD, 2 had juvenile polyps and in the remaining 19 patients no abnormalities were seen during endoscopy.
Conclusion: We did not observe a reduction in the percentage of negative endoscopies after the introduction of fCal as a screening test. However, 13% of the endoscopies could have been avoided if the pediatric gastroenterologist would have used an fCal value below the cut-point as the key to decide that endoscopy is unnecessary.

Dientamoeba fragilis and abdominal pain-related functional gastrointestinal disorders in children; a case-control study

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The role of Dientamoeba (D.) fragilis in functional gastrointestinal disorders (FGID) in children is not completely known. A possible role has been described for this protozoan in the aetiology of FGID (1-3). The aim of this study is to investigate the clinical relevance of D. fragilis in children with FGID. From April 2011 until April 2013, a total of 132 patients, aged 8-18 years, with abdominal pain-related FGID according the ROME III criteria, referred to a non-academic hospital and 77 patients, aged 8-18 years, without gastro-intestinal symptoms referred to a psychiatric hospital, were included in the study. D. fragilis was diagnosed by real-time PCR in fecal samples. Clinical data were retrospectively analyzed by examining patients' hospital records from the Jeroen Bosch Hospital and the Herlaarhof hospital in The Netherlands.D. fragilis was detected in 57 patients with abdominal pain-related FGID (43.2%) and in 39 controls (50.6%) (p=.255). In the group of children with abdominal pain-related FGID, no significant differences in symptomatology were found between those with or without a D. fragilis infection, except for other functional complaints (i.e. headache, back pain or neck pain) and eosinophilia. Parasitological eradication was achieved in 61.7% of patients after treatment with Metronidazole or Clioquinol, while clinical improvement occurred in 40.4% of patients only. No association was found between clinical and microbiological response after treatment for D. fragilis (p=.435).
Conclusion: This retrospective case study showed that D. fragilis is very common in asymptomatic children and makes the potential etiological role for D. fragilis in children with abdominal pain-related FGID questionable.

Timing of intervention in infected necrotizing pancreatitis: an international multi-disciplinary survey and case vignette study

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It is unclear whether there is consensus regarding the timing of intervention in patients with infected necrotizing pancreatitis. Therefore we evaluated the current expert opinion regarding timing of intervention in infected necrotizing pancreatitis. An anonymous digital survey was sent to 118 expert pancreatologists (surgeons, gastroenterologists, radiologists) from all continents. The survey consisted of 18 questions and 10 clinical cases including CECT images of varying disease stages. Diagnostic and therapeutic options included fine needle aspiration (FNA), antibiotics, (percutaneous or endoscopic) catheter drainage and necrosectomy. The response rate to our survey was 74% (N=87). The step-up approach, initial catheter drainage if needed followed by necrosectomy, was accepted by most experts (87%). Consensus was lacking regarding the use of FNA to diagnose infected necrosis: 0% used FNA routinely, 40% only in case of clinical suspicion, 45% rarely and 15% never. After definitively diagnosing infected necrosis, 55% would postpone an intervention and await the effect of antibiotics, whereas 45% would immediately perform an intervention. Walled-off necrosis was not considered a technical prerequisite for percutaneous catheter drainage by 88% of experts, whereas 66% considered it essential for endoscopic transluminal drainage. More experts would intervene in case of proven infected necrosis (gas in the (peri)pancreatic necrotic collection on CECT) vs. clinical signs of infected necrosis: i.e. day 7: 34% vs 2%, day 14: 57% vs 25%, day 30: 89% vs 72%.
Conclusions: although the step-up approach is well accepted as routine management strategy of infected necrotizing pancreatitis, consensus regarding the timing of initiating this approach is lacking. Proof of infection and disease duration influence the timing of intervention. This study highlights the need for a randomized controlled trial on timing of intervention in patients with infected (peri)pancreatic necrosis.

Quality of life of patients with rectal cancer treated by chemoradiation therapy alone and showing clinical complete response: a comparative study with patients treated by surgery

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Promising oncological outcomes have been reported of rectal cancer patients showing clinical complete response after treatment with chemoradiation (CRT) and stringent follow-up (no surgery), called 'wait-and-see-protocol' (CRT+W&S). This is the first study which compares Quality of Life (QoL) of CRT+W&S with surgical treatment. Patients in three hospitals, treated for primary rectal cancer 2-5 years ago according to one of the following treatments: direct TME-surgery; 5x5Gy radiotherapy followed by TME; CRT followed by TME after 6-8 weeks; or CRT+W&S, were included in this study. QoL (EORTC-QLQ-C30, and -CR-38), general health (SF-36), sexual function (IIEF/FSFI), bladder function (IPSS), and incontinence-scores (Vaizey/LARS) were compared between W&S-patients and patients with surgical treatment (with or without neoadjuvant treatment).A total of 102 patients were included. Patients were divided in the four treatment groups: direct TME (n=16), 5x5Gy + TME (n=26), CRT + TME (n=39), and CRT + W&S (n=21). The mean age is 67.69 years (±10.785), and 69.9% were men. W&S-patients have a significant better outcome in physical functioning (EORTC-QLQ-C30/SF-36: p=0.02), role functioning (EORTC-QLQ-C30/FS-36: p=0.02), emotional functioning (EORTC-QLQ-C30: p=0.02), cognitive functioning (EORTC- QLQ-C30: p=0.002) and social functioning (EORTC-QLQ-C30: p=0.01) compared to surgical treatment. W&S-patients have less defecation-problems (Vaizey- scores: p<0.001-0.006), or appetite loss (EORTC-QLQ-C30: p=0.02), and GI-symptoms (EORTC-QLQ-CR38: p=0.03), and are less fatigue (EORTC-QLQ-C30: p=0.02), or nauseous (EORTC-QLQ-C30: p=0.02). There were no significant differences in bladder (IPSS) and sexual function (IIEF/FSFI).
Conclusions: Beside good oncological outcome reported in prior literature, W&S-patients have a significant better outcome in several domains of QoL-questionnaires, compared with rectal cancer patients treated by surgery.

Gut directed hypnotherapy in children with irritable bowel syndrome or functional abdominal pain (syndrome): a randomized controlled trial on self exercises at home using CD versus individual therapy by qualified therapists

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Objectives: Gut-directed hypnotherapy (HT) has been shown to be effective in children with irritable bowel syndrome (IBS) and functional abdominal pain (syndrome) (FAP(S)). It is however unavailable to many children, because HT is costly, requires a significant parental time investment and there is a shortage in qualified therapists. We conducted a multi-center RCT comparing the effectiveness of individual hypnotherapy by a therapist to home-based treatment using an audio CD with standardized hypnosis exercises. Methods: These preliminary analyses include 234 children aged 8-18 years with IBS (n=117) or FAP(S) (n=117). Children were randomized to individual HT (n=115) or home-based HT with a CD (n=119). Individual HT was given by 12 different qualified therapists and consisted of 6 sessions over a 3-month period. Children in the CD-group were instructed to listen to the hypnosis CD, containing the same exercises used in the individual sessions, at least 5 times a week for a 3-month period. Pain frequency (PFS) and pain intensity (PIS) were measured using standardized abdominal pain diaries at base and after treatment. Treatment success was defined as a reduction in both pain frequency and intensity of at least 50%. Additionally, adequate relief was reported by parents. Results: PFS scores decreased significantly from 15.0 to 6.5 in the HT-group (p=0.00) and from 14.6 to 9.1 in the CD-group (p=0.00). PIS scores in the HT-group decreased significantly from 15.1 to 6.9 (p=0.00) and from 14.7 to 9.5 in the CD- group (p=0.00). However, reduction in PFS and PIS scores was significantly greater in the HT-group (p=0.02; p=0.01) compared to the CD group. In the HT-group 51.4% was successfully treated versus 36.8% in the CD-group (p=0.03). There was a trend towards a higher percentage of adequate relief in the HT-group (82.1% vs. 71.3%; p=0.07).
Conclusion: These preliminary analyses show that short term efficacy of gut-directed HT performed by different qualified therapists is superior to home-based treatment with a hypnosis CD with respect to pain frequency and intensity scores. Nevertheless, home-based treatment seems to be a valuable treatment option, given the high percentage of parents reporting adequate relief.

Timing of cholecystectomy after mild biliary pancreatitis: a randomised controlled multicenter trial

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Objective: In mild biliary pancreatitis, international guidelines advise cholecystectomy during index-admission or within 4 weeks after discharge to prevent recurrent pancreatitis or other biliary events. However, evidence for the optimal timing of cholecystectomy is limited and in daily practice the waiting period for cholecystectomy often exceeds 6 weeks. Therefore, we conducted a randomised trial to investigate whether cholecystectomy during primary admission reduces the number of readmissions for biliary events compared to postponed cholecystectomy. Methods: All adult patients admitted with a first episode of mild biliary pancreatitis (i.e. the absence of necrotizing pancreatitis, fluid collections or organ failure) were assessed for eligibility. Patients were randomised before discharge for either laparoscopic cholecystectomy within 72 hours ('early') or after 25 to 30 days ('interval'). Primary endpoint was a composite of mortality or readmission for biliary events (i.e. recurrent pancreatitis, biliary colics, cholecystitis or choledocholithiasis requiring endoscopic retrograde cholangiopancreatography [ERCP]). Secondary endpoints included patient reported biliary colics (without the need for readmission), safety of cholecystectomy expressed by technical difficulty as measured on a 10-point scale by the surgeon, need for conversion, perioperative complications and length of hospital stay. The trial protocol has been published. Results: In 23 Dutch hospitals 266 patients with mild biliary pancreatitis were enrolled. 129 Patients were randomised for early cholecystectomy and 136 for interval cholecystectomy. Base characteristics were similar between groups. Median time from randomisation to cholecystectomy was 1 day (interquartile range [IQR] 1 to 2) in the early versus 27 days (IQR 26 to 29) in the interval group. The primary endpoint occurred less often in the early group (5% vs. 17%; risk ratio 0.28; 95% confidence interval [CI] 0.12-0.66; p = 0.002). Furthermore, the incidence of recurrent biliary pancreatitis was lower in the early group (2% vs. 9%; RR 0.27; 95% CI 0.08-0.92; p = 0.02). 52% of the patients in the interval group reported colics during the waiting period. Need for ERCP, readmissions for colics, technical difficulty of cholecystectomy, number of conversions, perioperative complications, and length of hospital stay did not differ between groups.
Conclusion: This trial provides solid evidence that cholecystectomy should be performed during the initial admission for mild biliary pancreatitis, as this prevents readmissions for recurrent biliary events, including recurrent biliary pancreatitis, without increased risk of complications.

Clinical impact of five large-scale screening projects for chronic hepatitis B and C in Chinese immigrants in the Netherlands

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Chronic hepatitis B virus (HBV) and hepatitis C virus (HCV) infection represent a global public health problem resulting in significant morbidity and mortality. There is a debate going on whether it is useful to screen in low endemic countries, immigrants from high endemic countries who are at risk for chronic HBV and HCV infection. China is a high endemic country and carriers with HBV and HCV are at risk to develop a hepatocellular carcinoma (HCC). In this study we describe the results of five large-scale screenings projects for chronic HBV and HCV in Chinese immigrants in terms of clinical relevance. Between 2009 and 2013 five HBV screening projects targeting first generation Chinese immigrants were conducted in the Netherlands: Rotterdam, The Hague, Utrecht, Eindhoven, Arnhem and region. In four cities also screening for HCV took place. In two cities a referral guide was used and in the remaining cities all infected patients were referred for evaluation by a medical specialist. For this study we defined clinical relevance as the presence of a treatment indication (according to national and international guidelines) and the percentage of patients needing strict follow up and screening for HCC. In total 4393 Chinese immigrants were tested. In the different cities between 4 and 8.6% of patients were HBV positive. Referral rates varied between 33 and 100%. The percentage of chronic HBV patients who started treatment within one year varied between 11 and 47%. Eighth patients had already developed cirrhosis. The percentage of patients who needed follow up because of high risk for HCC varied between 28 and 51%. Three patients were HCV positive tested of which one had already developed HCC. This patient was successfully treated and until now without signs of relapse. In total, between 67 and 79% of patients could be defined as clinical relevant according to our definition. Of all positive tested Chinese immigrants, more than two out of three needed treatment or strict follow up because of risk of developing HCC. Because of this high percentage of clinical relevant findings within this screening program, we consider screening for chronic HBV and HCV in Chinese immigrants aiming at secondary prevention relevant.

Screening on hepatitis B markers before Rituximab administration in a tertiary care center in the Netherlands: the difference between guidelines and reality

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Treatment with the monoclonal antibody Rituximab is associated with hepatitis B reactivation with potential fatal complications. Therefore EMEA advices to screen every patient for hepatitis B virus (HBV) markers prior to Rituximab administration. These markers include both HBsAg and anti-HBc, because reactivation can occur in both chronically infected patients (HBsAg+) and patients with resolved hepatitis B (HBsAg-, anti-HBc+). HBsAg+ patients should receive adequate antiviral prophylaxis. There is still no consensus on prescribing antiviral prophylaxis in 'anti-HBc' only patients. Regularly testing of HBV DNA and treating these patients when reactivation occurs might be sufficient to intervene and prevent severe consequences of reactivation. The aim of the present study was to assess adherence to above-mentioned guidelines in clinical practice. We conducted a retrospective cohort study among all adult patients who received Rituximab between 01-01-2011 and 01-08-2013. The protocol was approved by the internal review board. We retrospectively reviewed the medical records and laboratory results to identify these patients. Screening rate was defined as the number of patients who were tested for at least one HBV marker (HBsAg and/or anti-HBc) up to one year before the first Rituximab administration. We defined HBV reactivation as re-appearance or an increase in serum HBV DNA over 10 folds ($1\log_{10}$ IU/ml), compared with the pretreatment level. Hepatitis was defined as a threefold or greater increase in serum ALT level that exceeded 120 IU/L. Of the total population of 269 patients, 56% was tested for HBV prior to Rituximab administration. Screening percentages were comparable between different departments. All HBsAg+ patients (N=3) and 8 out of the 19 'anti-HBc only' patients received antiviral prophylaxis. Among 'anti-HBc only' patients without antiviral prophylaxis (N=11), 2 patients developed HBV reactivation. Among patients not screened prior to Rituximab administration, 12 cases (10.1%) of hepatitis occurred. However, 11 of them were not HBV related. One patient possibly developed reactivation of hepatitis B, but no definite information was available.
In conclusion, almost 50% of the patients were not tested for HBV markers prior to administration of Rituximab. Further large-scale studies to solve potential barriers and implement solutions are needed to improve adherence to clinical guidelines.

Estimating the probability of response to peginterferon alfa in hbeag-positive chronic hepatitis b: the epic-B predictor

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Background: Only a subset of chronic hepatitis B patients achieves a response to peginterferon (PEG-IFN) therapy. Methods: A base prediction model (EPIC-B Predictor) for response (HBeAg loss and HBV DNA <2,000IU/mL at 6 months post-treatment) was constructed based on HBV genotype, base HBsAg, HBV DNA, ALT and patient age, sex and previous IFN therapy in a training dataset of 822 HBeAg-positive patients treated with PEG-IFN for one year in 3 global randomized trials (Pegasys Phase 3, HBV 99-01 and Neptune) and externally validated in 666 patients treated with PEG-IFN for 24 to 48 weeks in various global studies. Patients were classified according to the predicted probability of response: low (<20%), intermediate (20–30%) or high (>30%). Response was defined as HBeAg loss with HBV DNA <2,000 IU/mL at 6 months post-treatment. Results: The derivation dataset consisted of genotypes A/B/C/D in 112/206/392/112. Genotype specific models were constructed for genotypes A, B and C, but not D because of the limited number of responders. The model performed well in the training set (AUROC 0.71, p<0.001) and predicted probabilities from the model accurately reflected observed response rates (table). In the validation cohort (genotypes A/B/C in 9/272/385, full year of treatment 33%, response 17%), the model performed well (AUROC 0.67, p<0.01) and the predicted probability strongly correlated with observed response rates (p<0.001). The EPIC-B predictor consistently identified subsets of patients with very low (~40% of patients in both datasets) or very high chances of response (~30% of patients in both datasets).
Conclusions: The EPIC-B Predictor accurately estimates the probability of response to PEG-IFN therapy in HBeAg-positive patients and can be used to improve patient counselling and to guide the choice of first- treatment in HBeAg-positive chronic hepatitis B.

Hepatitis B RNA is present in plasma before and during treatment with peg-interferon-alfa or nucleos(t)ide analogues and represents a novel viral marker in chronic hepatitis B patients

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Replication of the hepatitis B virus (HBV) DNA genome proceeds via an RNA pre-genome. Treatment with nucleos(t)ide analogues (NAs) suppresses HBV-DNA formation, but does not directly affect synthesis of RNA. We hypothesized that during NA- or Peg-IFN/NA combination therapy, HBV-RNA particles continue to be produced and secreted into the bloodstream. For this, we developed a sensitive assay to measure HBV-RNA in plasma. HBV-RNA isolated from plasma was quantified by qPCR using HBV-specific primers. HBV-RNA and HBV-DNA (COBAS TaqMan – Roche) was measured in plasma of 20 chronic hepatitis B (CHB) patients (10 HBeAg-pos; 10 HBeAg-neg) before and ±6 and 12 months after starting NA therapy (5 entecavir; 5 tenofovir in each group). In addition, HBV-RNA and HBV-DNA was measured in 86 CHB patients (41 HBeAg-pos; 45 HBeAg-neg) before initiation of peg-IFN and adefovir combination treatment for 48 weeks, and in a subgroup of 23 CHB patients (13 HBeAg-pos; 10 HBeAg-neg) at week 18 and 42 of treatment. From this cohort, patients with combined response (HBeAg negativity, HBV-DNA ≤10,000 C/mL, ALT normalization) at week 72 were compared with non-responders. Before treatment initiation HBV-RNA was detectable in all HBeAg-positive patients (mean 6.84 (SD 1.46) logC/mL), and associated with HBsAg (r0.55) and HBV-DNA (r0.78). HBV-RNA was lower in HBeAg-negative patients (mean 4.14 (SD 1.13) logC/mL), and associated with HBV-DNA (r0.67), but not with HBsAg (r -0.02). After 12 months of NA therapy mean HBV-RNA declined, albeit to a lesser extent than HBV-DNA in both HBeAg-positive (-1.83 logC/mL vs -6.47 logC/mL, p<0.01) and –negative patients (-0.87 logC/mL vs -5.00 logC/mL, p<0.01). A similar pattern was observed during Peg-IFN and adefovir treatment, reflected in a dec in DNA/RNA ratios in both HBeAg-positive (1.37 before treatment to 0.94 at week 18, p<0.01) and –negative (1.33 to 0.90, p=0.03) patients. HBV-RNA levels were significantly different between HBeAg-positive responders and non-responders from week 30 onwards. HBeAg-negative responders (n=17) had lower HBV-RNA levels already at base (3.35 vs 4.37 logC/mL, p=0.01). In multivariable analysis both base HBV-RNA and HBsAg were predictors of combined response (p=0.01 and 0.03, respectively).

Conclusions: HBV-RNA is present in plasma of untreated CHB patients, and correlates with HBV-DNA. During treatment with NAs or Peg-IFN and adefovir, HBV-RNA dec is limited compared to the dec in DNA. In HBeAg-negative patients, low base HBV-RNA level was associated with combined response at week 72. More research is needed to confirm the relevance of plasma HBV-RNA measurement in the treatment of CHB.

Hepatitis B core related antigen levels are associated with response to ETV and PEG-IFN treatment in HbeAg-positive chronic hepatitis B patients

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Hepatitis B core related antigen (HBcrAg) is a new marker which is a combined measure of the core proteins HBeAg, HBcAg and p22cr, and correlates with intrahepatic covalently closed circular DNA. Serum HBcrAg levels may therefore be associated with response to antiviral therapy.We studied HBeAg-positive patients treated within an international randomized trial (ARES), in which all patients were treated with ETV (0.5mg/day) from w0-24, and randomized to either PEG-IFN add-on from w24-48 (n=85), or to ETV-monotherapy continuation (n=90). Response was defined as HBeAg-loss with HBV DNA<200IU/ml. Only responders at w48 stopped ETV at w72. All patients were followed until w96. Serum HBcrAg was measured using the Lumipulse® G HBcrAg (Fujirebio Europe). At w96, response was achieved in 31% vs. 20% of patients assigned PEG-IFN add-on vs. monotherapy respectively. Lower HBcrAg levels at w0 were associated with response to ETV (OR 0.5, 95%CI:0.3-0.8, p<0.001), but not to PEG-IFN add-on (OR 0.9, 95%CI:0.5-1.6, p=0.678). At w96 more HBcrAg dec was observed among responders (-2.6 vs -2.0 log U/mL for monotherapy and -3.5 vs -2.0 log U/mL for add-on, both p<0.001), with more dec for responders to add-on vs. monotherapy (p=0.010; figure). Lower HBcrAg levels at w48 were associated with HBsAg levels <1000IU/mL at w96 (OR 0.5, 95%CI:0.3-0.8, p=0.002). By Bland-Altman analysis, agreement between HBeAg and HBcrAg measurements at w0 was close (mean difference $-3.1x10^{-6}$ Log U/mL, 95%CI:-0.9 – 0.9), with comparable on-treatment results obtained for w12-96.

Conclusion: On-treatment HBcrAg dec is associated with response to both ETV monotherapy and ETV+PEG-IFN add-on therapy, with most prominent declines observed during PEG-IFN. HBcrAg and HBeAg measurements seemed to follow similar on-treatment dynamics.

Long-term Nucleos(t)ide Analogue Consolidation Therapy Reduces Risk of Relapse in Chronic Hepatitis B

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The sustainability of response after stopping nucleos(t)ide analogue (NA) therapy in chronic hepatitis B (CHB) patients remains largely unknown. According to international guidelines, 6-12 months of consolidation therapy before stopping NA is associated with increased sustained response. There is however limited evidence whether this is the ideal duration of consolidation therapy. We analyzed 94 patients who stopped NA after at least one year of therapy. Patients could be HBeAg-positive or HBeAg-negative at start-of-therapy, but all were HBeAg-negative and had undetectable HBV DNA (<200 IU/mL) at time of discontinuation. Consolidation therapy was defined as treatment duration between the first undetectable HBV DNA (in case of HBeAg-positive patients after HBeAg loss) and NA discontinuation. Relapse was defined as HBV DNA >2,000 IU/mL measured twice 6 months apart within one year, or retreatment after an initial HBV DNA elevation. Median follow-up was 19.4 months with a median consolidation therapy duration of 2.5 years. At start-of-therapy, 35 patients were HBeAg-positive and 59 were HBeAg-negative. The cumulative relapse rate was 33% at 6 months, 42.7% at 1 year, and 64.4% at 5 years. Start-of-therapy HBeAg-status did not have significant effect on post-treatment relapse even after extensive multivariable analysis. Prolonged consolidation therapy was independently associated with a reduced risk of relapse (Hazard ratio 0.48; 95% CI 0.24-0.96 for 3 vs. 1 year). Patients with at least 3 years of consolidation therapy (n=37) had a one-year relapse rate of 23.2% compared to 57.2% for 1-3 years of consolidation therapy (n=32), and 55.5% for <1 year of consolidation therapy (n=20)(P=0.002). After NA stop, nine patients lost HBsAg resulting in a five-year cumulative HBsAg loss rate of 15.1%. For each additional year of consolidation therapy, patients were 1.3-fold more likely to lose HBsAg (Hazard ratio 1.34; 95% CI 1.02-1.75). Two cirrhotic patients developed hepatic decompensation, but there were no deaths. Conclusions: Regardless of start-of-therapy HBeAg-status, 64% of CHB patients experienced a relapse within 5 years after stopping NA. Consolidation therapy of at least 3 years decreased the rate of relapse and increased the rate of HBsAg loss significantly. This study suggests that prolongation of the currently recommended 6-12 months consolidation therapy is needed.

Characteristics of acute hepatitis E infection in a rural population

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Hepatitis E virus is a major cause of enterically transmitted non-A, non-B hepatitis in developing countries. The misconception that hepatitis E only affects travellers to endemic areas has resulted historically in its under testing and diagnosis. Furthermore, evidence suggests that the incidence of the infection increases in the developed world. The detailed clinical characteristics of acute infections in developed countries have not yet been fully elucidated. The aim of this study is to evaluate clinical characteristics of acute viral hepatitis E in a rural part of the Netherlands. And therewith, establishes whether hepatitis E can be distinguished at primary presentation. All patients with a positive result on serology testing of hepatitis E of the previous 5 years (2009-2014) were evaluated. Retrospectively, all patient files, laboratory tests and abdominal ultrasounds were analyzed. A total of seventy patients had a positive result on serology testing of hepatitis E. In twenty-four (34,3%) patients there was an acute infection: immunoglobulin M or RNA were positive. The mean age of the patients was 51 years (range 20 – 78 years); 66,7% were males. One patient was asymptomatic. Main symptoms were malaise, fatigue (75%) and nausea and/or vomiting (63%). Jaundice was seen in 5 patients (21%). Gamma glutamyltranspeptidase, alka phosphatase and alanine amino-transferase were increased in all patients; ranges varied considerably. Total bilirubin was raised in fourteen patients (58%), and also varied strongly. The inflammatory parameters were predominantly normal. Hepatic steatosis on ultrasound was seen in only 8 patients (33%), which was pre-existing in two patients. Two patients presented with decom-pensation of liver cirrhosis (alcoholic and chronic viral hepatitis B) caused by acute hepatitis E infection. Viral hepatitis E was self-limiting in all cases; normalisation of liver biochemical and function tests occurred after at least two months.
In conclusion, clinical features of acute hepatitis E infection are nonspecific and, unfortunately, cannot be distinguished at presentation. In patients with acute onset of malaise and elevation of liver tests, hepatitis E should be considered and serological testing should be conducted. In our population, acute hepatitis E arises as a self-limiting infection.

Hepatitis E in clinical practice: a retrospective descriptive and serological study

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Although hepatitis E has been considered as a travel associated disease in the Netherlands, emerging number of cases are reported in absence of travel to endemic areas. Locally acquired hepatitis E infections have also been noticed in other Western European countries. Despite increasing case reports and case series, hepatitis E is not always recognized in medical practice. The local epidemiology is still unclear and it remains unknown whether cases of hepatitis E are missed. The first aim of this retrospective study is to investigate the local epidemiology and to contribute to understand the clinical picture. Second, our serological study will identify cases of hepatitis E which are potentially missed by not performing serology. Hospital records of patients with positive serology were retrospectively analyzed to collect clinical data from patients who suffered from hepatitis E. To reveal potentially missed cases, a retrospective hepatitis cohort (ALT>40 IU/l) was serologically tested. It concerned stored serum samples of non-ABC hepatitis patients who also tested negative for Epstein-Barr virus and Cytomegalovirus. In the period of 2005 - March 2013, probably twenty-three patients with male predominance (70%) suffered from hepatitis E. The average age was 55 years and commonly reported findings were fatigue (n=15), jaundice (n=12), dark urine (n=12) and nausea (n=12). Biochemical analysis revealed ALT 1958 IU/l, AST 1224 IU/l, γ-GT 401 IU/l , AP 319 IU/ and total bilirubin 107µmol/l. The mortality rate (9%) concerned two patients who turned out to have a cirrhotic liver. A total of thirteen cases could be confirmed by immunoblotting (n=2), polymerase chain reaction (n=2) and serological follow-up (n=9). Additionally, positive IgM serology was also seen in other infectious diseases and clinical conditions not associated with hepatitis E. Surprisingly, serological confirmation was not performed regularly in clinical practice. Furthermore, 4.9% of the serum samples in our hepatitis cohort from 2012 - April 2013 appeared to be IgM positive and may represent missed cases of hepatitis E. IgG seroprevalence was 6.1%.

In conclusion, hepatitis E viral infections are missed due to not performing serological diagnostics in patients with acute hepatitis. Serological testing of hepatitis E should be implemented in clinical practice regardless of the travel history. Positive IgM findings are also seen in non hepatitis E associated conditions. Therefore, subsequent serological follow up is of diagnostic importance in case of positive serology or undetermined findings. Finally, hepatitis E can cause mortality in patients with underlying liver problems.

Blood Group Non-O is a Risk Factor for Portal Vein Thrombosis

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Several risk factors for the development of splanchnic vein thrombosis (SVT) have already been identified, but part of the etiology of SVT remains unknown. The aim of this study was to elucidate the role of novel candidate single nucleotide polymorphisms (SNPs), recently shown to increase the risk of venous thromboembolism, as risk factors of SVT. In this case-control study, patients with portal vein thrombosis (PVT), Budd-Chiari syndrome (BCS) and controls were recruited from the European Network for Vascular Disease of the Liver (EN-Vie) study cohort. Genotyping of 5 candidate SNPs – in the VWF (rs1063857), STXBP5 (rs1039084), CYP4V2 (rs13146272), GP6 (rs1613662) and SERPINC1 (rs2227589) genes – and ABO blood group was performed using a Taqman assay. DNA samples were available in 80 patients with PVT, 79 patients with BCS and 81 controls. Of these, genotyping was successful in 77, 77 and 81 respectively. All SNPs were in Hardy-Weinberg equilibrium (call rates >97%). Median age of our patients was 43.7 (IQR 31.0-54.4) years and 65 (42.2%) were male. An underlying inherited thrombophilic factor was previously diagnosed in 17 patients with PVT (22.1%) and 16 patients with BCS (20.8%). A myeloproliferative neoplasm (MPN) was detected in 26.3% of patients with PVT and 37.7% of those with BCS. Blood group non-O was present in 81.6% of patients with PVT as compared to 57.1% of patients with BCS and 58.8% of controls (p=0.002). Presence of blood group non-O was associated with an increased risk of PVT (OR 3.1, 95%CI 1.5-6.5, p=0.002 for AA/GA versus GG at rs687289). No association between blood group non-O and risk of BCS was observed (OR 0.9, 95%CI 0.5-1.8, p=0.8). Blood group non-O remained independently associated with PVT after adjustment for age and sex (OR 3.3, 95%CI 1.5-7.3, p=0.003). Presence of a known underlying inherited thrombophilic factor did not alter the association between blood group non-O and PVT compared to patients with BCS (p for interaction term=0.13). The association between blood group type non-O and PVT was also not altered by the presence of a MPN (p for interaction term=0.88). None of the 5 other novel candidate SNPs associated with venous thromboembolism was associated with an increased risk of PVT or BCS (p-values>0.05).

Conclusions: In this study, blood group non-O was discovered as an independent risk factor for the development of PVT. Interestingly, this factor was not associated with BCS. Blood group non-O is therefore the first discriminant etiological factor described and may be a lead to the unresolved issue of site-specificity of these conditions.

Treatment of cyst infections: large practice variation and common failure of antibiotic therapy

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Cyst infection is a severe complication of hepatic and renal cystic disease. Antibiotics are the first treatment, but in case of recurrent infection percutaneous drainage or even partial hepatectomy or nephrectomy may be required. We aimed to identify and assess all available treatment strategies for hepatic and renal cyst infection. We conducted a systematic review following the PRISMA guidelines. We systematically searched the electronic database of PubMed (1948-2014), EMBASE (1974-2014), and the Cochrane Library (until 2014). We included peer-reviewed studies of any design involving adults (≥18 years) receiving treatment for a symptomatic, non-parasitic hepatic and/or renal cyst infection. We extracted data on patient characteristics, treatment strategies, recurrences, and follow-up. Failure of therapy was defined as switch or intensification of therapy. We screened 5590 publications and 120 articles fulfilled eligibility. All articles were case series and/or case reports. We included a total of 171 individual cyst infection cases (male 39%; mean age 54±15; diabetes 6%; dialysis 20%; solid organ transplantation 18%). Infection was located in hepatic (n=54), renal (n=115), or hepatic and renal cysts (n=2). Initial cyst infection treatment consisted of antimicrobial agents (65%), percutaneous treatment (20%), or surgery (15%). Patients were treated with 155 antimicrobial regimens consisting of 43 different combinations. Most used antibiotic classes were fluoroquinolones (31%), cephalosporins (30%), penicillins (28%), and/or aminoglycosides (23%). Antibiotic therapy failed in 77% of cases. Initial percutaneous or surgical therapy failed in 29% respectively 4% of cases. More than 2 therapy changes occurred in 8% of patients. Recurrence is frequent: hepatic (20%) and renal cyst infection (6%). Median time to recurrence was 4 weeks (hepatic: 8 weeks; renal: 2.5 weeks). Most patients (79%) with recurrence were initially treated with antibiotics. Some 32% of recurrences occurred in renal transplant recipients. Cyst infection related death occurred in 8% of cases.

Conclusions: There is a large heterogeneity in applied treatment strategies for hepatic and renal cyst infection. The initial treatment primarily consists of antibiotics, but frequent switching is the rule and recurrence is frequent.

Development and validation of a polycystic liver disease specific questionnaire

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Introduction: Treatment of polycystic liver disease (PLD) focuses on improvement of symptoms. However, generic questionnaires lack sensitivity to capture PLD-related symptoms. To determine efficacy of new therapies, development of a PLD-specific questionnaire is paramount. Aim: To develop and validate a disease specific questionnaire assessing symptoms in polycystic liver disease (PLD-Q). Methods: We identified PLD-related symptoms impacting quality of life by literature review and interviews with patients and clinicians. Subsequently, we developed questions on frequency and severity of each symptom. Individual scores of questions were summarized into a total score ranging from 0-100 points. We undertook validation study in 200 patients with mild to severe PLD from our PLD-registry. We assessed convergent validity by Spearman's correlation coefficient of PLD-Q with EORTC QLQ-C30 symptom subscale and EQ5D VAS-score. Furthermore, we compared PLD patient scores with 183 controls without PLD; and symptomatic vs. asymptomatic patients by Mann-Whitney U to test discriminative validity. Intraclass correlation coefficient (ICC) of test-retest was calculated to assess reproducibility. Results: We generated 14 PLD-related symptoms; abdominal fullness, stomach tension, loss of appetite, early satiety, nausea, pain in rib cage, side and stomach, dyspnea after exertion, limited mobility, tiredness, anxiety for the future, dissatisfaction of the size of abdomen and sexual discomfort. In the validation study, 167 patients (85% female, mean age 55.6 years) completed the questionnaire (response rate 84%, mean score 40.1 ± 18.3, range 0-86.5 points). PLD-Q correlated well with EORTC30 ($r= 0.788$, $p<0.001$) and EQ5D ($r= -0.666$, $p <0.001$). PLD-Q discriminated between patients and controls (40.1 vs. 19.3 points, $p<0.001$) and between symptomatic and asymptomatic patients (44.5 vs. 24.9 points, $p<0.001$). The PLD-Q showed excellent reproducibility (ICC 0.914).
Conclusion: We developed a polycystic liver disease specific questionnaire (PLD-Q) with good convergent validity, discriminative validity and reproducibility which can be used to assess PLD-related symptoms in future clinical trials.

Clinical efficacy of highly effective interferon-free therapy in patients with chronic HCV infection and compensated advanced hepatic fibrosis

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Introduction: Independent of host characteristics, 95% of patients with chronic HCV infection attain SVR with interferon-free therapy. We aimed to assess the clinical efficacy of such therapies for the individual patient with compensated advanced liver disease. Methods: A multicenter cohort study including all consecutively treated patients with chronic HCV infection and advanced hepatic fibrosis was performed. Clinical efficacy of therapy was assessed as the number needed to treat (NNT) to prevent 1 death in 5 years, which was calculated with the adjusted hazard ratio (HR) of SVR for all-cause mortality and the individual's estimated 5-year survival based on our externally validated mortality risk score including solely objective variables. [NNT=(1/(estimated 5y-survival without SVR^(HR of SVR) – estimated 5y-survival without SVR))*(100/SVR rate)]. Results: In total, 530 patients were followed for a median of 8.4 (IQR 6.4-11.4) years. Median age was 48 (IQR 42-56) years, 143 (27%) patients had bridging fibrosis and 387 (63%) had cirrhosis. SVR was attained by 192 (36%) patients. Cox analyses showed that SVR was independently associated with reduced all-cause mortality (adjusted HR 0.25, 95%CI 0.12-0.53), without significant interactions with any base variables. Overall, the 5-year mortality rate was 8.6% (95%CI 5.7-11.5) among patients without SVR. A risk score for mortality was constructed with all objective variables which were independently associated with mortality, which included age (per year: 1.062, 95%CI 1.035-1.090, p<0.001), gender (male: 1.907, 95%CI 1.104-3.292, p=0.021), platelet count (per $10x10^9$/L: HR 0.907, 95%CI 0.865-0.952, p<0.001), and $\log_{10}$AST/ALT ratio (per 0.1: HR 1.295, 95%CI 1.112-1.509, p=0.001). The c-statistic of the risk score for all-cause mortality (see figure) was 0.78 (95%CI 0.72-0.83). The NNT was calculated with a fixed HR of SVR of 0.25, a fixed SVR rate of 95%, and the individual's expected 5-year mortality risk as determined with the mortality risk score. The NNT to prevent 1 death in 5 years was 29, 15, 10 or 8 in case of an expected 5-year mortality risk of 5, 10, 15 or 20%, respectively.

Conclusion: These results indicate that the clinical efficacy of interferon-free therapy varies extensively among patients with advanced liver disease, which might provide guidance when prioritizing patients for treatment with these costly regimens.

Assessment of noninvasive hepatic fibrosis markers among patients with chronic HCV infection and advanced liver disease

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Histological semi-quantitative scores are the current reference for assessment of liver fibrosis, but these methods are invasive and subject to inter-observer variability. We aimed to assess the power of the AST/ALT ratio, APRI and FIB-4 index to discriminate bridging fibrosis from cirrhosis among HCV-infected patients. The AST/ALT ratio, APRI and FIB-4 index were assessed in a large multicenter cohort of consecutive interferon-treated patients with chronic HCV infection and biopsy-proven advanced hepatic fibrosis (Ishak 4-6) between 1990 and 2003 from 5 tertiary care hospitals in Europe and Canada. In total, 546 patients were included. Median age was 48 years (IQR 42-56) and 376 (69%) were male. Ishak score 4 was observed in 146 (27%) patients, Ishak score 5 in 103 (19%) patients and Ishak score 6 in 297 (54%) patients. The median AST/ALT ratio, APRI and FIB-4 index were 0.67 (IQR 0.53-0.79) vs 0.73 (IQR 0.58-0.92); 1.05 (IQR 0.63-1.81) vs 1.63 (IQR 0.96-3.06) and 1.70 (IQR 1.10-2.39) vs 2.79 (IQR 1.87-4.59) in patients with Ishak 4 and Ishak 5/6, respectively ($p<0.05$ for all). When including all three markers in a multivariate logistic regression model only the FIB-4 index remained a significant predictor of the presence of Ishak 5/6 (OR 1.94 95%CI 1.38-2.73, $p<0.001$). ROC analysis showed that the FIB-4 index (AUC=0.72, 95%CI 0.67-0.77) was better to discriminate between Ishak 4 and Ishak 5/6 compared to APRI (AUC=0.66 , 95%CI 0.60-0.72, $p<0.001$) or AST/ALT ratio (AUC=0.66, 95%CI 0.60-0.72, $p<0.001$).
Conclusion: Among chronic HCV patients with and biopsy-proven advanced liver disease, the diagnostic accuracy of the FIB-4 index for presence of Ishak score 5/6 was better as compared to the APRI score and AST/ALT ratio.

Influence of creatinine measurement methods on MELD-score in icteric patients

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In patients with end-stage liver disease the MELD score is used to predict survival, and is subsequently applied as a tool for the allocation of transplant organs. The MELD score is calculated from serum creatinine and bilirubin concentration and the PT-INR. This raises a challenge in strongly icteric patients, since strongly elevated bilirubin levels interfere with the measurement of creatinine. In this study, the extent of interference by bilirubin was examined in two routinely used creatinine methods (Jaffé and enzymatic). Furthermore, the measurement of creatinine on a blood gas analyser was evaluated. All values were compared to creatinine concentrations determined with the LC-MS/MS, a reference method not influenced by bilirubin. In addition, we investigated the influence of the different methods for creatinine measurement on the MELD score. In 200 samples from 40 clinical patients with an icteric index higher than 300 (total bilirubin concentration ≥237 µmol/L), the total bilirubin concentration was measured, as well as the creatinine concentration using the above mentioned methods. The obtained data were analysed using SPSS, and Analyse-it. When compared to LC-MS/MS, the enzyme based creatinine measurement resulted in a value that was 19% lower (P=<0.0001), which declined to 10% lower (P=<0.0001) using the decreased enzymatic assay. The Jaffé assay did not significantly differ from the reference method, however, the correlation was not as high as with the enzymatic assay (r=0.970 vs r=0.979). The blood gas analyser had both highest concordance and highest correlation (r=0.997). When calculating the MELD scores (PT-INR was set to 1) using the different creatinine methods and comparing them to the LC-MS/MS creatinine-based MELD score, we observed relevant differences. MELD scores differed ≥3 points in 28% of the patients when the enzymatic assay was used, when diluting the sera to decrease the icteric interference this was reduced to 13%. For the Jaffé method these numbers were 15% and 5%, respectively. Using the blood gas analyser, only 1% of the MELD scores was ≥3 points different from the LC-MS/MS creatinine-based MELD score.
In conclusion, in icteric patients both creatinine methods routinely used in the laboratory showed a significant bias when compared to the LC-MS/MS reference method. This bias also influenced the MELD score. The creatinine concentration determined with the blood gas analyser correlated strongly with the reference method and did not show a bias in the MELD score.

Current allocation system for liver transplantation benefits PSC patients

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The current allocation system for liver transplantation (LTx) aims to transplant patients with the highest short-term mortality risk. This system is based on Model for End-stage Liver disease (MELD) points and exception points, and has been introduced on Dec 16th 2006 in the Netherlands. However, it has been questioned whether current policy adequately prioritizes PSC patients. Therefore, we aimed to study the waiting list survival of PSC patients as compared to patients with other indications. Survival time was defined as the time from listing to the combined endpoint of death or removal from the waiting list due to clinical deterioration; survival analysis was computed with the Kaplan-Meier estimate. Patients listed for LTx at our center between Dec 16th 2006 and Dec 31th 2013 were included. Patients listed for retransplantation, acute liver failure or combined liver and kidney transplantation were excluded. A total of 363 patients (median age 54 yrs; M/F 244/119) was listed, of whom 231 (64%) underwent LTx, 81 (22%) died or deteriorated while waiting, 16 (4%) were withdrawn for other reasons and 35 (10%) were still waiting as of June 2014. Main indications for LTx were hepatocellular carcinoma in 100 patients, PSC in 76 patients, alcoholic liver disease in 56 patients, chronic viral hepatitis in 36 patients, metabolic liver disease in 30 patients and other indications in 65 patients. Eight PSC patients (11%) were awarded exception points after being listed for LTx. Overall, PSC patients had a significantly higher survival rate on the waiting list as compared to the total group of patients with other indications (p=0.03), which was also demonstrated in the subgroup analysis in patients without MELD score adjustment (p=0.003). Within this latter subgroup analysis, MELD scores at listing were not significantly different between both groups (18.5 for other indications vs 17.2 for PSC; p=0.13). Within the subgroup without MELD score adjustment, a higher incidence of complications before listing was present in patients with other indications as compared to PSC patients with regard to the presence of ascites (77% other vs 62% PSC; p= 0.015), history of spontaneous bacterial peritonitis (30% other vs 10% PSC; p=0.001), and hepatic encephalopathy (49% other vs 15% PSC; p<0.001). The 1-year survival rate after LTx was not significantly different between both groups (86% other vs 89% PSC; p=0.53).

Conclusions: Patients with PSC are less likely to die or be removed from the waiting list due to clinical deterioration as compared to patients with other forms of end-stage liver disease. The current allocation policy seems to be in favor of PSC patients.

Copeptin: a marker of circulatory derangement, is independently associated with outcome in patients admitted for acute decompensation of cirrhosis

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Background: Acute on chronic liver failure (ACLF) is characterized by the presence of organ failure and a very high risk of short-term mortality. Systemic hemodynamic dysfunction and activation of endogenous vasoconstrictor systems are thought to contribute. We hypothesize that copeptin, a stable cleavage product of the C-terminal part of the vasopressin precursor, is a marker of early diagnosis of ACLF and outcome. Methods: From 198 cirrhotic patients hospitalized for acute decompensation, clinical, laboratory and survival data from the Canonic database were used. Presence of ACLF was defined according to the modified CLIF-sequential organ failure assessment (SOFA) score. Serum copeptin concentration was measured in samples collected within 2 days after admission, using an assay in the chemiluminescence/coated tube format (B.R.A.H.M.S. GmbH, Hennigsdorf, Germany). Cox proportional hazard regression analysis with liver transplantation and mortality as a combined endpoint was used to evaluate the effect of age, copeptin concentration, laboratory and clinical data on outcome. MELD, MELDNa and CLIF-SOFA score were separately evaluated with copeptin to avoid redundancy. Parameters with $p<0.10$ in univariate analysis were included in multivariate analysis. The effect of ACLF grading and mean arterial blood pressure (MAP) on copeptin levels was analysed by an ANOVA model adjusted for confounders. Results are shown as median (IQR). $P< 0.05$ was considered significant. Results: Copeptin concentration was significantly higher in patients with ACLF (49 (22-76) pmol/l) than without ACLF (26 (11-56) pmol/l, $p<0.001$). Serum copeptin was increased according to the grade of ACLF (figure) and inversely related to MAP ($p=0.04$). At 28 days of follow-up (FU) 34 (17.2%) of patients had died and 7 (3.5%) were transplanted. Serum copeptin was significantly higher in patients who died or were transplanted than in those who survived (56 (30-93) vs. 51 (19-83) vs. 21 (10-48) pmol/l, $p<0.001$). Copeptin was an independent predictor of outcome at 28 days of FU (HR 1.68 (95% CI 1.10-2.56), $p=0.017$), corrected for hepatic encephalopathy, INR and creatinine concentration . Copeptin independently predicted outcome at 3, 6 and 12 months of FU, also when corrected for MELD, MELD Na and CLIF-SOFA score.
Conclusion: Serum copeptin concentration, as a marker of circulatory dysfunction, is significantly elevated in patients with ACLF as compared to those with 'mere' acute decompensation of cirrhosis. Copeptin is independently associated with short and long term outcome in patients with acute decompensation of cirrhosis.

New model to identify UDCA-treated primary biliary cirrhosis patients in need of additional therapy. Results of an international follow-up study of 4119 patients

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Background: Several biochemical criteria have been proposed to assess the therapeutic response and long-term prognosis in ursodeoxycholic acid (UDCA)-treated primary biliary cirrhosis (PBC). These criteria were shown to have independent and additive predictive ability. This study aimed to define a single, unifying criterion identifying those patients at greatest need for second- treatment. Methods: Long-term follow-up data collected in 15 North American and European centers were analysed using Cox proportional hazard regression models to construct prediction models based on numerous combinations of biochemical and clinical parameters that were obtained after one year of treatment with UDCA. The ability of these models to predict liver transplantation-free survival was tested using c-statistic and Akaike Information Criterion (AIC) and was compared with previously reported response criteria. A predictive index (PI) was calculated based on the beta coefficient of the final Cox regression model. Results: 4119 UDCA-treated PBC patients were included. During a mean follow-up time of 8.4 years 320 patients underwent liver transplantation and 566 patients (269 liver related) died. In the final multivariate model the following variables had the best predictive performance: Age at entry ($p=8.7*10^{-39}$), bilirubin ($p=1.0*10^{-56}$), albumin ($p=7.0*10^{-14}$) and AST/platelets ratio (APRI) ($p=1.8*10^{-20}$). Survival for patients with a PI <50th percentile was comparable to that of an age-, sex- and calendar time-matched Dutch population (5-yr: 98% vs 98% and 10-yr: 94% vs 95% respectively, p=0.07). For patients with a PI ≥50th percentile survival was worse compared with a matched population (5-yr: 90% vs 94%, 10-yr: 75% vs 86% respectively, $p<8.0*10^{-16}$). The prognostic utility of this model (c-statistic: 0.80, 95% CI 0.78-0.82) was superior to that of previously reported response criteria (c-statistic: Barcelona criterion: 0.57 (95% CI: 0.55-0.59), Paris-1 criterion: 0.68 (0.67-0.70, Rotterdam criterion: 0.67 (0.66-0.69), Toronto criterion: 0.65 (0.63-0.67) and Paris-2: 0.63 (0.61-0.64)) and was satisfactory in specific subgroup (e.g. patients with normal bilirubin and albumin at baseline: c-statistic: 0.71 (0.70-0.78)).
Conclusion: This new composite model, based on age, bilirubin, albumin and APRI, represents an improved clinical tool for identifying patients with an insufficient therapeutic response after one year of UDCA treatment. The prognosis of patients with a PI ≥50th percentile deviates from that of a matched general Dutch population. Such patients may be candidates for additional treatment.

The role of statines in the treatment of esophageal cancer patients

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Recently, there has been an increasing interest in the potential influence of statins on therapeutic response rates and survival in different types of cancer. However, no studies explored the role of statins in the curative treatment of esophageal cancer. The aim of the present study is to investigate the effect of statins on pathologic complete response (pCR) rates and disease free survival in patients who are treated with neoadjuvant chemo(radio)therapy followed by esophagectomy. Between March 1994 and September 2013 all consecutive patients with cancer of the esophagus or gastroesophageal junction who underwent esophageal resection after neoadjuvant chemo(radio)therapy were included in the present study. Base demographic and clinical characteristics were compared between statin users and nonusers. 463 patients were included, 93 (20.1%) used statines at the time of diagnosis. 88 (19%) underwent preoperative chemotherapy and 375 (81%) underwent neoadjuvant chemoradiation. 85 (18%) patients had a pCR (pyT0N0M0R0). pCR was not significantly different between statin users and nonstatin users (23% vs 17%, p=0.239). Median disease free survival was not significantly different between statin users and nonstatin users (44 (95% CI 32.2-55.9) vs 41 (95% CI 30.0-53.7) months, p=0.509).
Conclusions: statin users did not experience different outcomes compared with non-users and statin use did not affect the efficacy of neoadjuvant therapy. These data do not support modification or discontinuation of statin therapy for patients with esophageal cancer.

Tumor stroma ratio (TSR) in esophageal adenocarcinoma biopsies in the prediction of response to neoadjuvant therapy and overall survival

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The incidence of esophageal carcinoma has been rising over the past decades. Surgical resection remains an important part of curative treatment. Several studies have demonstrated a survival benefit for patients receiving neoadjuvant therapy compared to patients that underwent surgical resection alone. Identification of non-responders at an early stage could prevent patients from the toxicity of neoadjuvant therapy and avoid a possible fatal delay in the performance of potentially curative surgery. Tumor stroma ratio (TSR) in primary tumor biopsies taken before neoadjuvant therapy and surgery proved to be a prognostic factor for patient's survival. The aim of this study was to evaluate the prognostic value of the TSR in biopsies of esophageal adenocarcinomas taken before neoadjuvant therapy and surgery, in correlation to the response to neoadjuvant therapy prior to esophagectomy. In addition the correlation of the tumor stroma ratio with overall survival was evaluated. In a retrospective study, we selected 141 patients with esophageal adenocarcinoma who underwent neoadjuvant chemoradiotherapy prior to esophageal resection between 2004 and 2011. The haematoxylin-eosin (H&E) stained sections of the tumor biopsies were reanalysed. TSR was scored as TSR low (< 50% carcinoma) or TSR high (> 50% carcinoma). Response to neoadjuvant therapy was determined in the resected specimen based on the tumor regression grade (TRG). The chi-square and Fisher's exact tests were used to evaluate the correlation of TSR with TRG. Survival was calculated from the date of surgery using the Kaplan-Meier method. 141 patients were analysed. 55 (39%) patients were defined as responders (TRG 1 and 2) and 86 (61%) as non-responders (TRG 3 and 4). Estimation of the TSR was performed successfully in all the tumors (100%). 104 (74%) patients were classified as TSR high and 37 (26%) patients as TSR low. The correlation of TSR with TRG was not significant (P = 0,537). The correlation of TSR with overall survival was not significant (P = 0,793).
Conclusions: our results suggest that the TSR in biopsies of esophageal adenocarcinomas does not have a prognostic value in correlation to the response to neoadjuvant therapy prior to esophagectomy. Moreover, according to our results TSR is not a prognostic characteristic for overall survival.

Pathological complete responders and non-responders to neoadjuvant chemo-radiotherapy in esophageal cancer

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Neoadjuvant chemoradiotherapy (nCRT) was introduced to improve outcome of patients with esophageal cancer. Literature shows us that 25% of treated patients show a complete pathological response (pathCR) to nCRT. However, non-responsive patients have an increased peri-operative morbidity and mortality. Our aim was to identify predictive factors for pathCR to nCRT and compare oncological outcome between pathological non-responders and untreated patients. This study examined all patients with esophageal cancer treated between 2005 and 2011 with nCRT (carboplatin/-paclitaxel and concurrent radiotherapy 41.1Gy in 23 fractions) and were included for identification of predictive factors to response. Outcome between non-responders to nCRT were compared with a propensity score matched (1 to 2) historical cohort of 218 primary surgically treated patients. In the study period 115 nCRT patients were identified. The pathCR rate was 34%. Median overall survival (OS) of the study group was 52 months. In our multivariate regression model female sex (HR 3.0, 95% CI 1.03-8.80) and squamous cell carcinoma (SCC) histological type (HR 7.5 95% CI 2.48-22.69) were identified as independent predictive factors for pathCR. In the nCRT cohort, 49 patients were considered as pathological non-responders to nCRT and were matched to 98 patients out the historical cohort. The OS was comparable between the groups (Log-rank P=0.145).

In conclusion, patients with female sex and SCC have a high chance of achieving pathCR to nCRT in esophageal cancer. Furthermore, our results show that patients with pathological non-response have no benefit to nCRT. It is therefore important to identify and apply in current clinical practice factors, which can predict response to nCRT and to select suitable candidates.

Surgical Treatment of Adenocarcinomas of the Esophagogastric Junction

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Background: Patients with adenocarcinoma of the esophagogastric junction (GEJ) may undergo either esophagus-cardia resection or extended total gastrectomy. The aim of this study was to evaluate the outcome of surgical therapy with regard to postoperative outcome and survival in patients with Siewert type II tumors. Methods: A prospective database of 266 consecutive patients with surgically resectable GEJ adenocarcinomas from 2003 – 2013 was analyzed. The choice of surgical approach was based on preoperative imaging as well as intraoperative tumor localization. Either an esophagus-cardia resection or an extended total gastrectomy was performed. Results: According to the histopathological analysis, 67 patients (25%) had a type I tumor, 176 patients (66%) a type II tumor, and 16 patients (6%) a type III tumor. In total 86% were treated with esophagectomy and 14% with gastrectomy. Overall 5-year survival was 38%. In type II patients, there was no significant difference in overall survival on multivariate analysis (p=0.606). A positive circumferential resection margin at the site of the esophagus was more common in the gastrectomy group (29% vs 11%, p=0.025) for type II patients. No significant differences in mortality, morbidity or disease recurrence were found between both procedures. In patients with type II tumors, upper mediastinal nodal involvement (subcarinal, paratracheal and aortapulmonary window) was present in 11% of the patients. The majority of the lymph node metastases were found at the lesser curvature (56%) and paracardial (24%). In patients treated with esophagectomy34% had para-esophageal lymph nodes metastases compared to 5% of patients treated with gastrectomy.
Conclusion: In patients with a type II GEJ adenocarcinoma, a positive CRM was more common with gastrectomy. Esophagectomy provides for a more complete para-esophageal lymphadenectomy. Furthermore, the high prevalence of mediastinal nodal involvement indicates that a full lymphadenectomy of these stations should be considered in type II tumors.

The value of amylase level measurements in drain fluid for early diagnosis of intrathoracic leakage after esophagectomy

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Background: Intrathoracic *anastomotic leakage following minimally invasive* esophagectomy is a dreaded complication requiring prompt diagnosis. Several diagnostic modalities are available to detect anastomotic leakage such as CT-scan and endoscopy. However, endoscopy is invasive and a CT-scan is accompanied with radiation exposure next to additional costs. In with pancreatic surgery elevated drain amylase levels may theoretically be used as a diagnostic marker for anastomotic leakage in esophageal surgery. Objectives: To investigate the value of elevated amylase concentrations in drain fluid, for detecting anastomotic leakage after Ivor-Lewis esophagectomy. Design: This is a multicentre retrospective analysis of prospectively collected data. Consecutive patients undergoing a minimally invasive Ivor-Lewis esophagectomy following neoadjuvant chemoradiotherapy were included. In all patients, amylase levels were determined in drain fluid during at least the first five days postoperatively. A low vacuum Jackson Pratt drain was placed near the intrathoracic anastomosis during the procedure. A cut off value of >750IU/L for elevated amylase achieved the highest accuracy for the diagnosis of anastomotic leakage. Leakage was defined as any intrathoracic leakage of the reconstructed gastro-intestinal tract as found during re-operation, at endoscopy or on a CT-scan. Results: A total of 57 patients were included between March 2013 and March 2014. The median age was 66 years (range: 43-80) and 81% was male. Anastomotic leakage occurred in 7 patients (12.3%), all confirmed by endoscopy. Three patients had a leakage at the stapler of the gastric conduit (5.3%), all confirmed by endoscopy. Of all patients with elevated amylase levels (N=6), 5 patients had an intrathoracic leakage (positive predictive value 83.3%, 95% CI 36.1 – 97.2%). Of all patients with normal amylase levels (N=51), 46 patients showed no intrathoracic leakage (negative predictive value 90.2%, 95% CI 78.6 – 96.7%). The overall test-accuracy was 89.5%.
Conclusion: Daily measurements of amylase levels in drain fluid of a drain close to the anastomosis is a simple, inexpensive and easy to use tool that may be used to screen for anastomotic leakage early after esophagectomy. Further prospective studies including sufficient patients are needed for validation and determination of the ideal cut-off value to increase the overall test accuracy.

Leaving a mobilized thoracic esophagus in situ when incurable cancer is discovered intra-operatively

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Occasionally incurable cancer is encountered after completing the thoracic (first) phase of 3-phase esophagectomy. The outcome of aborting the surgery at this stage, leaving the mobilized thoracic esophagus in situ, is unknown. Therefore a multicenter retrospective analysis was performed of patients in whom a completely mobilized thoracic esophagus was left in situ when incurable disease was discovered intra- operatively. The occurrence of esophageal necrosis or perforation, mortality and all other complications were recorded and graded to severity. In total 18 patients were included. The median admission time was 9 days. All patients had resumed oral intake at discharge, except for 1 patient who was fed through a nasojejunal tube. After surgery the median overall survival was 2.9 months. Postoperatively, 7 patients (39%) developed major surgical complications and 11 patients (61%) had no or minor complications only. The major complications consisted of esophageal perforation and empyema (4), major aspiration after endoscopy showing esophageal ischemia (1), hemoptysis in a patient with tracheal tumor infiltration, pneumonia and bilateral recurrent nerve paresis (1) and respiratory failure (1). Major complications were associated with the patient's death in 6 patients (33%), within 5-34 days postoperative. Esophageal perforation or ischemia developed in 4 patients (22%) and 1 patient (6%) respectively. No predictive factors could be identified. Leaving a completely mobilized thoracic esophagus in situ when incurable cancer is discovered intra-operatively resulted in no or minor complications in more than half of all patients. However, nearly two-fifth experienced major complications, which resulted in substantial mortality.

Diagnostic performance of 18F FDG PET(-CT) for the detection of recurrent esophageal cancer after treatment with curative intent: a systematic review and meta-analysis

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Previous studies have suggested that early detection of recurrent disease after primary treatment for esophageal cancer may result in prolonged survival. However, the diagnostic accuracy of conventional imaging techniques (computed tomography (CT)) after therapy is limited. A combination of 18F fluorodeoxyglucose (FDG) positron emission tomography (PET) with integrated CT might achieve higher diagnostic value. Therefore, a systematic review and meta-analysis was designed to analyze the diagnostic performance of FDG PET(-CT) for diagnosing recurrent esophageal cancer after initial treatment with curative intent. The PubMed, EMBASE and Cochrane library were systematically searched for all relevant literature. Studies examining the diagnostic value of FDG PET or integrated FDG PET-CT, in either routine clinical follow-up or in symptomatic patients suspected of recurrent esophageal cancer were eligible for inclusion. Risk of bias and applicability concerns were assessed using the QUADAS-2 tool. With the extracted data, sensitivities and specificities were calculated and a summary receiver operating characteristic curve (sROC) was constructed. The I^2 test of the diagnostic odds ratio was calculated to assess presence of heterogeneity (defined as I^2 <50%). The initial search yielded 1690 publications of which 8 eligible studies were included in the meta-analysis. There were no major methodological concerns. The 8 studies compared FDG PET(-CT) findings to histological biopsy and/or clinical follow-up as reference standard. All study results were pooled using a fixed-effects model as no heterogeneity was found (I^2= 28.3%). Pooled estimates of sensitivity and specificity for FDG PET(-CT) in diagnosing recurrent esophageal cancer were 95% (95% CI 93-97%) and 75% (95% CI 69-80%), respectively. The area under the curve of the sROC was 0.938. Subgroup analysis revealed no significant difference in diagnostic performance for studies in which FDG PET(-CT) was performed on indication compared to studies in which FDG PET(-CT) was performed as part of routine follow-up.
Conclusions: The results of this meta-analysis indicate that FDG PET(-CT)is a reliable imaging modality with a high sensitivity and moderate specificity for detecting recurrent esophageal cancer. The use of FDG PET(-CT) particularly allows for a minimal false negative rate. Therefore, hardly any true recurrences are missed. However, the moderate false positive rate of FDG PET(-CT) demands histopathological confirmation of FDG PET(-CT) suspected lesions. The benefit of FDG-PET(-CT) over conventional imaging techniques, in terms of cost-effectiveness and improving clinical outcome, remains subject of debate.

Prophylactic gastrectomy in patients with hereditary diffuse gastric cancer: how radical are we?

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Gastric cancer may arise as a result of an inherited predisposition syndrome. Patients with Hereditary Diffuse Gastric Cancer (HDGC) due to a CDH1-germ mutation have signet ring cells in their gastric mucosa and have a life-time risk of 80% to develop gastric cancer. The current international guide regarding the management of these patients recommends a prophylactic gastrectomy in order to remove all risk-bearing gastric mucosa. However, re-interventions due to remnant gastric mucosa have been described. The objective of this study was to evaluate the use of a frozen section from the proximal resection margin during prophylactic gastrectomy to ascertain the complete removal of gastric mucosa. All consecutive HDGC patients undergoing a prophylactic gastrectomy between 2005 and 2014 in our institute were included. The frozen sections from the proximal resection lines were re-examined and the interobserver agreement was scored. In addition, the presence of gastric mucosa was assessed and compared with (I) the slide of the same material fixed in formalin and (II) the definitive resection margin. Also, the presence of ectopic gastric mucosa in the resected duodenum was investigated. In 20 out of 21 patients (95%), a frozen section from the proximal resection margin was processed. This showed gastric mucosa in 6 patients (30%), leading to a direct re-resection of the oesophageal margin. One frozen section was assessed differently during re-examination, showing gastric mucosa in retrospect, i.e., the interobserver agreement was almost perfect (k=0.90). In al but one case, the frozen section was concordant with the final report of forma fixed material (95%). All 21 definitive proximal resection margins were free of gastric mucosa. In 4 patients (19%) focal ectopic gastric mucosa was seen in the resected duodenum, with the presence of signet ring cells in one patient.
Conclusion: Complete removal of gastric mucosa in patients undergoing a prophylactic gastrectomy can be challenging due to difficulties in the peroperative recognition of the true (i.e., mucosal) oesophagogastric junction and due to the presence of ectopic gastric mucosa in the proximal duodenum. To minimise the risk of an incomplete resection, a frozen section from the proximal resection margin is recommended.

Omentectomy in gastric cancer surgery: a prospective cohort study in 100 patients

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There is no evidence for a complete omentectomy as part of a radical gastrectomy with a modified D2 lymphadenectomy in potentially curative gastric cancer. In this study we prospectively evaluated the presence of metastases in the greater omentum in potentially curative radical gastrectomy for gastric cancer patients. In this multicenter prospective cohort trial 100 consecutive patients with gastric cancer underwent a (sub)total gastrectomy with complete en-bloc omentectomy and a modified D2 lymphadenectomy. After resection of the specimen, the omentum was separated from the stomach distal to the gastro-epiploic vessels and separately sent for pathological examination. The primary endpoint was the presence of metastases in the greater omentum. In 5 of 100 patients (5.0%) metastases were detected in the greater omentum (2 patients with omental lymph node metastases, 3 patients with omental tumor deposits). These patients had pT4N1M1, pT4N1M0, ypT4N1M0, ypT3N0M1, ypT3N3M0 disease. In all 5 patients with omental metastases, the resection was irradical (R1) at the proximal (n=3) or distal (n=2) resection margin. Two patients were operated for linitis plastica and 3 had a proximal gastric tumor. In 3 patients the tumor expanded in the esophagus, in 2 in the duodenum. Conclusion: Metastases in the greater omentum are infrequent. It seems that there are factors demonstrable that coincide with the presence of metastases in the greater omentum. In all patients with omental metastases an irradical resection was performed. This study suggests that omentectomy could possibly be omitted in some gastrectomy for gastric cancer patients. However, identification of these patients, safety and true benefit of omentum preservation needs further investigation in a randomized controlled trial.

Laparoscopic gastrectomy for gastric cancer: results of implementation of a new technique

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Although different (neo)adjuvant strategies are being developed, surgical treatment remains the cornerstone of curative treatment for gastric cancer. Standard operative procedure has traditionally been an open (sub)total gastrectomy with a modified D2-lymphadenectomy. In an attempt to lower perioperative morbidity, we designed and standardized a laparoscopic technique to perform a (sub)total gastrectomy for the treatment of patients with potentially curable gastric cancer. Aim of this study was to describe the short-term results of the first series of laparoscopic gastrectomies in patients with potentially curable gastric cancer. In this prospective cohort trial we evaluated the first series of consecutive patients with potentially curable gastric cancer who underwent a laparoscopic (sub)total gastrectomy with a modified D2-lymphadenectomy the first year following introduction of the laparoscopic technique. Primary endpoint was perioperative morbidity and mortality. Secondary endpoints were hospital length of stay, number of harvested lymph nodes and radicality of surgery (R0 resection rate). From February 2013 until April 2014 28 patients out of a total of 38 patients underwent a laparoscopic gastrectomy (73.7% of all gastrectomies). Eighteen patients (64.3%) underwent a total gastrectomy and 10 patients (35.7%) a subtotal gastrectomy. In 5 patients (17.9%) at least 6 cm of esophagus was co-resected. 18 patients (64.3%) received neo-adjuvant chemotherapy. There were 3 conversions (10.7%). Reasons for conversion were tumor involvement of the duodenum with a narrow relation to the pancreatic head in 2 cases and tumor ingrowth in the left hemidiafragm necessitating partial diaphragm resection in 1 case. The median operation time was 320 min, median blood loss 200 cc and median hospital stay 8 days. The overall complication rate was 21.4% (6 patients). There were 2 complications requiring re-intervention (7.1%). Both patients had an anastomotic dehiscence for which surgical drainage was performed. One of these patients eventually died of the septic consequences (total hospital mortality 3.6%). In 1 patient peri-operatively peritoneal metastases were detected and a palliative resection was performed. In 26 patients the tumor was radically removed (R0 resection rate 96.3%). Median lymph node count was 25.
Conclusion: Laparoscopic surgery for gastric cancer is feasible with good oncologic results and acceptable peri-operative morbidity and mortality. Implementation of this technique was evaluated as successful and therefore it is now standard surgical strategy at our center.

Laparoscopic versus open distal pancreatectomy for benign and malignant disease: a nationwide, retrospective matched-cohort study

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Retrospective studies from expert centers suggest that laparoscopic distal pancreatectomy (LDP) is superior to open distal pancreatectomy (ODP). Whether these superiority can be translated to daily practice is unknown since nationwide data regarding the utilization and outcomes of LDP are lacking. Aims of this study were to perform a case-matched comparison of LDP to ODP in all pancreatic centers in the Netherlands and to assess the opinion amongst Dutch pancreatic surgeons regarding LDP. Adults who underwent LDP or ODP in one of 17 Dutch high volume centers between January 2005 and September 2013 were analyzed retrospectively. Patients were matched in a 1:1 ratio based on the characteristics age, sex, indication for surgery, tumor size and American Society of Anesthesiologists score. Primary endpoint was major complications (Clavien-Dindo score ≥ III). Analyses were by intention-to-treat. An on survey on experience, training and prospects regarding LDP was sent to 30 Dutch pancreatic surgeons. Of 761 patients undergoing distal pancreatectomy, 633 were included after exclusion of 128 patients because DP was not the principal procedure (n = 124) or data were lacking (n = 4). LDP was performed in 64 patients (10%) and ODP in 569 patients (90%). The proportion of LDP and conversion rate (33%) did not change throughout the study period. One LDP patient could not be matched for base characteristics adequately and was therefore excluded. Matched groups were comparable for base characteristics. LDP (n = 63) was associated with less major complications (14% vs 30%; P = .03), less blood loss (275 mL (38-638) vs 650 mL (250-975); P = .03), less splenectomy (21% vs 54%; P < .01) and shorter postoperative stay (7 days (5-10) vs 9 days (7-11); P = .01). No significant differences were found in operative time, pancreatic fistula, delayed gastric emptying, surgical site infection and mortality. The survey (90% response) showed that 85% of surgeons was willing to participate in LDP-training and, subsequently, 96% in a randomized trial.

Conclusion: There is an underutilization of LDP in the Netherlands. Despite high conversion rates in these selected patients outcomes were superior to ODP. However, selection bias is suspected to play a significant role in these findings. Structured training in LDP seems indicated and has been developed within a national program (LAELAPS), ultimately leading to a multicenter randomized trial (LEOPARD).

Preoperative Biliary Drainage in Hilar Cholangiocarcinoma: Identifying patients that benefit from immediate percutaneous instead of endoscopic drainage

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Introduction: Preoperative biliary drainage in hilar cholangiocarcinoma is mostly initiated with endoscopic biliary drainage (EBD), but additional percutaneous transhepatic biliary drainage (PTBD) is frequently required to establish optimal biliary drainage prior to exploratory laparotomy. The aim of this study was to develop and validate a simple prediction model that identifies patients that are very likely to require additional PTBD. Methods: Two databases from specialty centers were used (Europe and USA), and patients that underwent EBD with plastic stents prior to exploratory laparotomy for a suspicion of hilar cholangiocarcinoma between 2001-2013 were included in the analysis. A prediction model was derived from the European dataset based on variables uniformly available prior to initiation of biliary drainage. Performance of the risk model in the external validation dataset (USA) was assessed for discrimination and calibration. Results: 108 patients of 288 patients (38%) required additional PTBD prior to exploratory laparotomy. Incremental risk factors for additional PTBD included tumour involving the left, right, or bilateral segmental bile ducts as assessed on preoperative CT and/or MRI, and a pre-drainage total bilirubin level higher than 150 µmol/L. The prediction model identified three subgroups: Patients with a predicted low risk of 7%, a moderate risk of 40%, and high risk of 62% for additional PTBD. The high risk group consisted of patients with tumour involving the right or bilateral segmental bile ducts and a pre-drainage total bilirubin level higher than 150 µmol/L. The prediction model had good discrimination (area under the curve 0.735) and adeqaute calibration in the external validation dataset.
Conclusion: Patients with hilar cholangiocarcinoma likely to need additional biliary drainage after initial attempt at endoscopic stent placement can be identified using the predictive model described. These patients should be treated with initial PTBD instead of initial EBD, thereby potentially reducing the number of preoperative biliary drainage procedures and associated complications.

A new safe and effective anti-adhesive barrier material; poly(1,3trimethyl carbonate) effectively and safely reduces adhesion formation following abdominal surgery in a rat model

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Postoperative adhesion formation is a major clinical problem following abdominal surgery, occurring in up to 93% of all patients with previous laparotomy surgery. One in every three of these patients will eventually require a readmission due to these adhesions. In this study we evaluated the effectiveness of a new slow-resorbable poly(trimethylene carbonate) (PTMC) film as a strategy for adhesion prevention. A validated rat adhesion model using peritoneal ischemic buttons was used to compare the new PTMC film with a Hyaluronate Carboxymethylcellulose (HA-CMC) sheet, Icodextrin solution, and a control group. Primary endpoint was occurrence of adhesions at the site of the ischemic buttons after 14 days in 44 rats (11 animals per group). Furthermore, a cecal abrasion model was used in the same animals to score for adhesions between bowel loops. Kruskal-Wallis tests with subsequent Man-Whitney tests were used to detect differences between groups. P-values < 0.008 were considered statistically significant. With a median of 0.5 buttons covered with adhesions per animal, the PTMC film showed a significant reduction in the amount of adhesions, when compared to control group (median: 4 buttons, $p<0.001$) and Icodextrin group (median: 4.5, $p<0.001$). The amount of adhesions was similar to the HA-CMC group (median: 2, $p=0.04$). No differences in adhesions to the abraded cecum could be found. Since this product will be mostly used following abdominal operations with gastrointestinal anastomoses and an increased risk for faecal contamination we evaluated the safety of this film in these situations in two additional animal studies. For these studies we used firstly a validated anastomotic leakage model and secondly a cecal ligation and puncture model. Both additional studies showed no additional risk for anastomotic leakage or indications of increased bacterial growth in a contaminated environment.
Conclusion: The presence of a PTMC film leads to a significant reduction in the amount of adhesions after 14 days in an ischemic button rat model. Furthermore the use of this film is safe even within complex abdominal operations with an increased risk of fecal contamination.

Body composition as risk factor for post-operative outcome after resection for colon cancer

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Due to increasing prevalence of colorectal cancer in the elderly, high risk surgical interventions are more frequently performed. Objective measures to assess who are at risk of postoperative morbidity and mortality are needed. This study investigated the role of depletion of skeletal muscle mass (sarcopenia) and sarcopenic obesity as risk factors for (severe) complications and survival in patients with resectable colon cancer. We conducted a retrospective chart review of 92 consecutive patients who underwent an elective open colon resection with primary anastomosis for cancer between January 2011 and December 2013 in Medisch Spectrum Twente hospital. Skeletal muscle mass was measured in preoperative CT scans as total psoas area (TPA) and total abdominal muscle area (TAMA) with corresponding mean Hounsfield Units (HU) at three levels: slice with both vertebral spines of L3 and top and bottom of L4. For each of these measurements sarcopenia was defined by a sex-specific cutoff value below the median. To assess the effect of sarcopenic obesity, comparison was made between groups with different degrees of muscle mass or HU (sex-specific cutoff value at median), linked with the degree of obesity based on BMI (cutoff 25 kg m^{-2}). The relation between both skeletal muscle mass and sarcopenic obesity and complications (defined as 0 versus ≥ 1 complications), severe complications (Clavien-Dindo Classification ≥III) and survival were analyzed. The study included 43 (47%) females and patients had a mean age of 71.2 ± 9.7 years. Complications were noted in 55 patients (60%), of which 13 patients (14%) developed a Clavien-Dindo grade III or IV and 2 patients (2%) a grade V. Sarcopenic obesity was an independent risk factor for developing severe complications at all measurement levels (all P ≤ 0.008), but not related to the presence of overall complications. Sarcopenia alone was an independent risk factor for the development of overall complications (all P ≤ 0.002), but not for the development of severe complications. Sarcopenia was a predictor of worse overall 1- and 3-year survival with respectively an 8.6 (95% CI 1.07-68.87) and 8.5 (95% CI 1.07-68.32) greater risk of dying. 1- and 3-year overall and disease-free survival were not affected by sarcopenic obesity.

Conclusion: Sarcopenic obesity is a significant predictor for severe postoperative complications after resection for colon cancer, whereas sarcopenia alone is a predictor for overall complications and of worse overall survival. The results of this study suggest noninvasive preoperative CT measurements can be used to perform risk stratification prior to colon cancer surgery.

The value of contrast and endoscopic evaluation of the anastomosis, prior to closure of loop ileostomy after low anterior resection

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Prior to closure of a loop ileostomy after low anterior resection (LAR), inspection of the low pelvic anastomosis is advised. This assessment often includes contrast studies or endoscopy. To date, no standard is described in any guideline. The aim of our study is to evaluate the outcomes of diagnostic tests and subsequent management changes. The complications after ileostomy closure will be described, in relation to the performed diagnostic tests and their outcomes. A retrospective chart review was performed, including all patients who received a loop ileostomy before or during LAR, from 2001 to 2012 in a teaching hospital. Data were collected on patient characteristics, performed preoperative diagnostic test and postoperative complications were collected. The 30-day complications were classified according to Clavien-Dindo. A total of 217 patients underwent a LAR with loop ileostomy, 30 of them were not eligible for closure of the ileostomy because of death, disease progression, comorbidities or patients' own choice (30/217 = 13.8%). 187 patients were eligible for ileostomy closure, based on clinical grounds; the ileostomy was closed in 186/187 cases. In one case per-operative findings prevented ileostomy closure. Based on the performed diagnostic test, the patients are divided into 4 groups: A: contrast (n=59), B: endoscopy (n=75), C: both contrast and endoscopy (n=41), and D: no diagnostics (n=12). Described indications for the second performed test were: inspection of the anastomosis (46.3%), following the previous diagnostic (39%), follow-up (2.4%), unclear (12.2%).Base characteristics are similar for all 4 groups, except in A and B more patients had loop ileostomy prior to LAR: four in A (4/59 = 6.8%) and ten in B (10/75=13.3%), compared to zero in both C and D. No difference in the distribution of complications between the 4 groups is found; no complication/grade I respectively 95, 87, 89, 90 per cent and grade II-V respectively 5, 13, 10, 9 per cent (p<o.oo1).Patients in C had the longest interval between the first test and ileostomy closure (in days respectively 50[34-87], 64[37-100] and 93[57-133].The calculated positive predictive values are respectively 0, 0.25 and 0. The negative predictive values were consecutive 0.95, 0.87 and 0.89. For group C both positive and negative value are calculated based on the last performed diagnostic test. It is unclear which diagnostic strategy is superior in evaluating the anastomosis prior to loop ileostomy closure. No significant difference in complications after loop ileostomy closure between the diagnostic groups was found in our retrospective series. We aim to evaluate this in a prospective study.

The use of routine colonoscopy after an uncomplicated conservatively treated episode of acute diverticulitis

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Introduction: It is common practice to routinely perform a colonoscopy after an episode of uncomplicated diverticulitis. According to the Dutch guidelines, after an episode of uncomplicated acute diverticulitis of the colon, patients should not undergo a colonoscopy routinely. Despite the Dutch guidelines, in the Netherlands it is common practice to perform colonoscopy after such an episode in both surgical and internal medicine practices. The evidence to support this routine use of colonoscopy in these patients is limited. However, the evidence supporting these recommendations is very poor. The aim of this study is to find out what the benefit is of a colonoscopy in all the patients who have been treated conservatively, with or without antibiotics, for an uncomplicated episode of acute diverticulitis to exclude a malignancy of the colon. Methods: This is a single-centre retrospective longitudinal study of patients with a presentation of acute uncomplicated diverticulitis (Hinchey 0, 1 and 2) who were treated conservatively, with or without a course of antibiotics between 1st of January 2008 and 30th of June 2013. We reviewed whether or not a colonoscopy was performed during follow-up and what the outcome was. Additionally, we have correlated the value of a colonoscopy to patients' presentation of symptoms. Results: During this period, 978 patients were treated conservatively for an episode of acute uncomplicated diverticulitis. Of those patients, 645 had undergone colonoscopy during follow-up. Alarm symptoms (bloody stools, weight loss, abdominal pain) were present in 205 patients. Nine of them were diagnosed with an malignant tumor of the colon (4.4%). No alarm symptoms were present in 440 patients who had undergone colonoscopy. Only one patient was diagnosed with colon cancer (0.2%).
Conclusion: This study shows that routine colonoscopy is not indicated routinely after an uncomplicated treated acute diverticulitis. A colonoscopy is only indicated when alarm symptoms are present after several weeks of the episode such as rectal bleeding, abdominal pain or weight loss to exclude any malignancies of the colon. Even in case of alarm symptoms, the actual finding of a colon tumor is rare.

Laparoscopic peritoneal lavage or sigmoidectomy for generalized peritonitis due to perforated diverticulitis; results of a multicenter randomised trial (The Ladies Trial)

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Perforated diverticulitis of the sigmoid colon can result in a life threatening condition requiring emergency surgery. There is neither evidence nor consensus what operation should be done in case of both generalised purulent and feculent peritonitis. The aim of the Ladies study was to compare the morbidity and mortality rate of laparoscopic lavage with sigmoidectomy in case of purulent peritonitis (LOLA arm) and sigmoidectomy with or without primary anastomosis in purulent and faecal peritonitis (DIVA arm). We will report on the LOLA arm that was prematurely closed by the data safety monitoring board. In a multicentre trial, patients with generalised purulent peritonitis due to perforated diverticulitis were randomised between laparoscopic lavage and sigmoidectomy. Before randomisation, diagnostic laparoscopy was performed to confirm the diagnosis. The primary outcome for the LOLA arm was a combined endpoint of severe morbidity and mortality at 12 months follow up. The study was conducted according to the Good Clinical Practice guidelines and was registered with ClinicalTrials.gov, number NCT01317485. On site monitoring was performed by an independent clinical research associate at regular intervals according to a predefined plan. An independent data and safety monitoring board evaluated the results after every 25 included patients. This research was funded by a ZonMW Dutch Governmental grant. At the moment of trial closure, 88 patients were included in the LOLA arm, 46 in the lavage group and 42 in the sigmoidectomy group. A total of 11 patients in the lavage group had ongoing sepsis, with 9 patients requiring acute surgical reintervention and two died from multi organ failure. Ongoing sepsis occurred in 3 patients in the sigmoidectomy group. Length of hospital stay was 8 days in the lavage group versus 11 days in the sigmoidectomy group. Severe morbidity occurred in 61% of patients in the lavage group and 50% of patients in the sigmoidectomy group during the complete 12 month follow up. Mortality occured in 4 patients of the lavage group and 6 patients in the sigmoidectomy group.
Conclusions: In this randomised trial, laparoscopic peritoneal lavage does not result in a reduction of severe morbidity and mortality compared to sigmoidectomy for treatment of generalized purulent peritonitis following perforated diverticulitis. Therefore our results do not reflect the promising results of previous case series on laparoscopic lavage.

Poor outcome after CRS and HIPEC for colorectal peritoneal carcinomatosis with signet ring cell histology

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Background: Signet ring cell cancer (SRCC) patients have a poor oncologic outcome. The aim of this study was to determine whether the potential drawbacks of HIPEC outweigh the benefits in patients with peritoneally metastasized SRCC. Methods: Patients with PC of colorectal origin referred to two tertiary centers between April 2005 and December 2013 were identified and retrospectively analyzed. Data were compared between SRCC histology and other differentiations. Results: Three-hundred-fifty-one patients were referred for CRS+HIPEC among which 20 (5.7%) patients were identified with SRCC histology. CRS+HIPEC was performed in 16 of these 20 (80%) and 252 out of the 331 remaining patients (76.1%). A higher proportion of patients in the SRCC-group were diagnosed with N2 stage (62.5% vs. 36.1%, P=0.04). A macroscopic complete resection was achieved in 87.5% and 97.2% respectively (P=0.04). Median survival was 14.1 months compared to 35.1 months (P<0.01). Recurrence occurred in 66.7% of the SRCC patients and in 43.7% of the other histology patients (P=0.07).
Conclusion: Patients with SRCC and PC treated with CRS + HIPEC have a poor median survival only slighty reaching over 1 year. In case of doubt of eligibility, the presence of SRCC should refrain a surgeon from performing CRS and HIPEC.

Severe skeletal muscle depletion is associated with reoperation in patients treated with cytoreductive surgery and hyperthermic intraperitoneal chemotherapy

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Severe complications are frequently reported after cytoreductive surgery and hyperthermic intraperitoneal chemotherapy (CRS+HIPEC). Skeletal muscle depletion (sarcopenia) is associated with impaired outcome after oncologic treatment. The goal of the current study was to determine the influence of severe skeletal muscle depletion in patients treated with CRS+HIPEC for peritoneal dissemination of colorectal cancer. A total of 142 patients with peritoneal disseminated colorectal carcinoma treated with CRS+HIPEC were enrolled into a database The cross-sectional muscle surface areas were measured at the level of the third lumbar vertebra on preoperative abdominal CT-scans and corrected for height (L3 muscle index (cm^2/m^2)). This is an easily obtainable and valid method to assess muscle depletion. Patients with severe muscle depletion (<10^{th} percentile) were compared to the rest of the cohort. The only exclusion criterion was a non-assessable CT-scan. In total 126 patients were included (mean age: 60.2 years, 67 females). The mean L3 muscle index for women was 39.9 cm^2/m^2 (SD 4.9) and for men 52.7 cm^2/m^2 (SD 7.6). Twelve patients had severe muscle depletion with a mean L3 muscle index of 35.6 (SD 4.7). Base characteristics, apart from BMI (21.7 vs. 25.1, p=0.002), did not significantly differ between patients with and without severe muscle depletion. Length of stay (median 9.5 vs. 10 days, p=0.93) and 30-day or in-hospital mortality (0% vs. 2.6% p=0.57) were not significantly different. The re-operation rate was significantly higher in patients with severe muscle depletion compared to the other patients (50% vs. 17.5%, p=0.008). Anastomotic leakage was the main reason for reoperation in these patients (83.3%). In patients with severe muscle depletion, there was a trend towards a significantly increased incidence of anastomotic leakage (46% vs. 20%, p=0.06). In multivariate analysis, severe muscle depletion was the only independent predictor of reoperation (p=0.016). After a median follow-up of 30 months, 43 patients (34%) had deceased, resulting in a median overall survival of 38.5 months. Preoperative severe muscle depletion was not significantly associated with overall and disease-free survival (p=0.57 and p=0.62). In patients treated with CRS+HIPEC for peritonitis carcinomatosis of colorectal cancer, severe skeletal muscle depletion is associated with an increased rate of reoperation. Therefore, L3 muscle assessment may be a valuable preoperative tool to predict postoperative morbidity.

Describing peripancreatic collections according to the 2013 Revised Atlanta Classification of acute pancreatitis: an international interobserver agreement study using the PANCODE system

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Acute pancreatitis (AP) may be associated with peripancreatic morphologic changes. Two interobserver studies classifying peripancreatic collections on CT-scans have been performed. The first showed poor interobserver agreement for the 1992 Atlanta Classification criteria. The second study showed good to excellent agreement among pancreatic specialists for a new set of morphologic terms (PANCODE: PAncreatic Non-enhancement, COllection DEscripition). One limitation was the absence of non-experts as an index for generalizability. In 2013 the Revised Atlanta Classification were published. The purpose of this study was to determine the interobserver agreement and generalizability of the PANCODE criteria and translation to the 2013 Revised Atlanta Classification. An international, interobserver agreement study was performed among: 15 surgeons, 8 gastroenterologists and 14 radiologists. A comparable ratio of specialists within expert (n=19) and non-expert (n=18) groups evaluated 55 CT-scans of patients with predicted severe AP on 8 PANCODE morphologic terms and on the terms of the 2013 Revised Atlanta Classification. The percentage agreement was calculated among all reviewers, and was defined as poor (<0.50), moderate (0.51–0.70), good (0.71–0.90), and excellent (0.91–1.00). Overall agreement was good to excellent in the expert and non-expert group for the PANCODE morphological terms: Pancreatic Nonenhancement (0.99 vs 0.98), Relation with Pancreas (0.96 vs 0.89), Encapsulation (0.96 vs 0.95), Content (0.79 vs 0.85), Mass Effect (0.85 vs 0.90), Shape (0.88 vs 0.97), Loculated Gas Bubbles (0.99 vs 0.99), Gas-fluid Level (0.96 vs. 0.95), and translation to the Revised Atlanta Classification: Type of Acute Pancreatitis (0.95 vs 0.91) and Peripancreatic Collection (0.94 vs 0.91). Of the subgroups the expert and non-expert radiologists showed the best interobserver agreement, which was good to excellent for all terms. The expert and non-expert clinicians showed moderate to excellent agreement for all terms. The PANCODE descriptors of peripancreatic collections and morphology showed good to excellent interobserver agreement among expert and non-expert radiologists and clinicians. Interobserver agreement for translating the morphologic terms to the 2013 Revised Atlanta Classification is good. This system is intuitive, easy to use and generalizable.

Predicting success of catheter drainage in infected necrotizing pancreatitis

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Introduction: Catheter drainage as the first treatment step of infected necrotizing pancreatitis is successful in at least 30% of patients. It is currently not possible to predict which patients will also need necrosectomy. We evaluated predictive factors for success of catheter drainage in infected necrotizing pancreatitis. Methods: We performed a post-hoc analysis of 130 prospectively included patients who underwent primary catheter drainage for (suspected) infected necrotizing pancreatitis. Using logistic regression we evaluated the association between success of catheter drainage (i.e. survival without necrosectomy) and 22 factors regarding demographics, disease severity (e.g. CRP, APACHE-II score and organ failure), morphologic characteristics on CT (e.g. percentage and distribution of necrosis and CTSI) and catheter drainage criteria (e.g. timing of drainage and type of drain). The model was internally validated by bootstrapping (5000 resamples). Results: Catheter drainage was performed percutaneously in 113 patients and endoscopically in 17 patients. Infection was confirmed in 116 patients (89%).
Catheter drainage was successful in 45 patients (35%). In bootstrapped multivariable regression, the following variables were associated with success of catheter drainage: male gender (odds ratio[OR] 0.27; 95%-confidence interval[CI] 0.09-0.55; P<0.01), multi-organ failure (OR 0.15; 95%-CI 0.04-0.62; P<0.01), percentage of pancreatic necrosis (<30%/30-50%/>50%: OR 0.54; 95%-CI 0.30-0.96; P=0.03 and heterogeneous collection (OR 0.21; 95%-CI 0.06-0.67; P<0.01). A prognostic nomogram including these factors yielded probability of success of catheter drainage ranging from 2% (all factors present) to 91% (none of the factors present).
Conclusion: Female gender, absence of multi-organ failure, low percentage of necrosis and a homogeneity of the collection are independent predictors for success of catheter drainage in infected necrotizing pancreatitis. The constructed nomogram can be used as a tool to easily predict success of catheter drainage in clinical practice.

Exocrine pancreatic insufficiency in patients with pancreatic or peri-ampullary cancer: a systematic review

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Exocrine pancreatic insufficiency may occur due to loss of pancreatic parenchyma or obstruction of the pancreatic duct. This may occur in pancreatic or peri-ampullary cancer, both before and after resection. The prevalence and natural course of exocrine pancreatic insufficiency in these patients has not been thoroughly studied. The aim of this study was to determine the prevalence of exocrine pancreatic insufficiency in patients with pancreatic or peri-ampullary cancer. We systematically reviewed the literature published up to February 20th 2014, according to the PRISMA guidelines. We included studies reporting on exocrine pancreatic insufficiency in patients with pancreatic or peri-ampullary cancer. Studies reporting on exocrine pancreatic insufficiency due to other causes and focusing solely on a diagnostic test were excluded. Data on base characteristics, type of pancreatic resection, diagnostic test for exocrine pancreatic insufficiency and occurrence of exocrine pancreatic insufficiency were extracted. Prevalence of exocrine pancreatic insufficiency was calculated from these data. After screening 3203 articles, 9 observational cohort (4 prospective, 5 retrospective) studies were included on a total of 664 patients. Of these patients 333 (50%) underwent pancreatoduodenectomy, 23 (3%) total pancreatectomy, 114 (17%) distal pancreatectomy and 194 (33%) no resection due to locally advanced pancreatic cancer. Median preoperative prevalence of exocrine pancreatic insufficiency was 44% (range 42-67%) before pancreatoduodenectomy; 20% (16-67%) before distal pancreatectomy; 63% before total pancreatectomy; and 50% in unresectable patients. The median prevalence of exocrine pancreatic insufficiency at least 6 months postoperative was 84% (36-100%) after pancreatoduodenectomy. Mean prevalence after distal pancreatectomy was 74% (67-80%); and 100% after total pancreatectomy.
In conclusion, exocrine pancreatic insufficiency is frequently seen in patients before resection for pancreatic or peri-ampullary cancer. The prevalence increases markedly following resection.

Bedside electromagnetic guided placement of nasojejunal feeding tubes in patients after pancreatoduodenectomy: prospective single-center pilot study

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Early oral feeding is now considered the routine feeding strategy after pancreato-duodenectomy. Some 40% of patients will develop delayed gastric emptying post-operatively and consequently require nasojejunal tube feeding. Endoscopic placement of nasojejunal feeding tubes by gastroenterologists is relatively labour- intensive and cumbersome for patients. Bedside electromagnetic (EM) guided placement using the Cortrak® Enteral Access System by nurses has been found to be a simple, safe and cost-effective strategy in several patient categories.To date, however, an altered anatomy of the upper gastrointestinal tract is seen as a relative contraindication for EM-guided tube placement. The aim of this study was to determine the success rate of bedside EM-guided placement of nasojejunal feeding tubes in patients after pancreasto-duodenectomy. We performed a prospective single-center pilot study in all patients requiring a nasojejunal feeding tube after pancreatoduodenectomy between July 2012 and March 2014. EM-guided nasojejunal tubes were placed by two specialized nurses with extensive experience with the technique. EM-guided placement was not performed in patients with upper gastrointestinal stenosis or oesophageal varices or when it was not possible for logistical reasons. Primary endpoint was the success rate of primary tube placement confirmed on plain abdominal x-ray (AXR). Success was defined as the tip of the tube positioned in the efferent jejunal limb. In our study period, 55 of 126 (44%) patients who underwent pancreatoduodenectomy required a nasojejunal feeding tube. In 36 patients the tube was placed under EM-guidance at a median of 8 (6-11) days after pancreatoduodenectomy. Initial tube placement was successful according to the nurse in 25 (69%) patients and on AXR in 21 (58%) patients. Median procedure time was 25 (15-35) minutes. 22 (61%) patients underwent 50 replacement procedures after previously failed placement attempts (n=31) or after luxation or blockage of the tube (n=19). 36 replacements were performed endoscopically and 14 under EM-guidance. No tube (re)placement related complications occurred. There was no learning curve effect when comparing the first 10 with the subsequent 26 procedures concerning success rate, but median procedure time decreased from 33 (18-45) to 20 (15-30) minutes.
Conclusions: Bedside EM-guided placement of nasojejunal tubes after pancreato-duodenectomy was successful in 58% of patients, which seems acceptable given the potential benefits for the patient. Based on these findings we have included patients after pancreatoduodenectomy in an ongoing randomized multicenter trial comparing EM-guided to endoscopic placement.

Comparison of the Dutch and English version of the Carolinas Comfort Scale; a specific quality of life-questionnaire for abdominal hernia repairs with mesh

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Purpose: Repair of abdominal wall hernias with mesh is one of the most common procedures in general surgery. The introduction of hernia repair with mesh has lowered recurrence rates and shifted the focus to quality of life after surgery, raising the need for a specific tool measuring quality of life. The Carolinas Comfort Scale (CCS) is a questionnaire designed specifically for patients having hernia repair with mesh. The aim of this study is to validate the Dutch CCS and to compare it to the generic short-form-36 (SF-36). Methods: The CCS questionnaire was translated into Dutch. Patients undergoing mesh hernia repair between April 2010 and December 2011 completed the CCS, the SF-36 and 4 questions comparing these two questionnaires in the first week after surgery. After three weeks, the CCS was repeated. Correlations between the two surveys were calculated using the Spearman' s rank correlation test with a 95% confidence interval to determine validity. Results: The response rate was 60.3% (100/168). The CCS showed excellent reliability with a Crohnbach's α of 0.948. Significant correlation existed between the CCS and the domains physical functioning, bodily pain, role physical, vitality and social functioning of the SF-36. Seventy-nine percent of the patients preferred the CCS to the SF-36, and 83% considered the CCS a better reflection of their quality of life after hernia repair with mesh.
Conclusion: The Dutch CCS appears a valid and clinically relevant tool for assessing quality of life after repair of abdominal wall hernia with mesh.

Improvement of colonoscopy quality in daily clinical practice

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The interest in quality and safety in the health care sector has rapidly risen over the past. Cecum intubation rate (CIR) and adenoma detection rate (ADR) are used as quality indicators for colonoscopy. Differences in colonoscopy performance between hospitals can be depicted using CIR and ADR. The aim of this study was to assess these quality indicators in routine colonoscopy in seven hospitals in the Netherlands and to compare the results to a base registration one year earlier. We prospectively registered all colonoscopies performed between November 2013 and February 2014 in two academic and five general hospitals in the Netherlands. Colonoscopies in patients with IBD or hereditary colorectal cancer syndromes were excluded. Adequate bowel preparation was defined as a Boston Bowel Preparation Scale (BBPS) score ≥6. Results were compared to a prospective base registration of 3129 colonoscopies performed between November 2012 and January 2013 in the same hospitals. After the base registration period, outcomes were evaluated and discussed within a meeting, thereby providing feedback to all hospitals. No directives were given regarding quality improvement. A total of 5024 patients were included (49% male; mean age 60±15 years; median ASA score 2). Compared to base registration the percentage of colonoscopies with adequate bowel preparation increased from 90% to 91% (p=0.02). Mean CIR remained 95% (p=0.81). The overall adenoma detection rate (ADR) improved from 32% to 35% (p=0.002). The mean number of adenomas per procedure (MAP) improved from 0.60±1.22 to 0.74±1.48 (p<0.001), and mean number of adenomas per positive procedure (MAP+) improved from 1.89 ± 1.48 to 2.09 ± 1.85 (p<0.05). The mean CIR ranged from 90% to 97% between hospitals (p<0.001). CIR for nurse endoscopists (97%) were significantly higher compared to gastroenterologists (95%) and fellows (95%) (p=0.01). The adenoma detection rate (ADR) was 35%: 41% in male patients and 30% in females (p<0.001), and varying between hospitals, ranging from 25% to 42% (p<0.001). The ADR varied between type of endoscopists with fellows (40%) performing better than gastroenterologists (34%) and nurse endoscopists (36%) (p=0.008).
Conclusion: Quality indicators of routine colonoscopy improved after plenary evaluation of previous results. Unadjusted cecum intubation rates were ≥ 90% and adenoma detection rates were above 20% in all seven hospitals.

Comparing standard colonoscopy with EndoRings™ colonoscopy: a randomized, multicenter tandem colonoscopy study – interim results of the CLEVER study

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Adenoma miss rates during colonoscopy have become widely acknowledged. This is primarily due to inadequate visualization of the proximal aspects of colonic folds and flexures. EndoRings™ (EndoAid, Caesarea, Israel) is a silicone rubber device, that is fitted onto the distal end of the colonoscope. Its flexible circular wings mechanically stretch colonic folds during withdrawal. In this multicenter tandem colonoscopy study, we compared adenoma miss rates (per lesion analysis) between standard colonoscopy (SC) and colonoscopy using EndoRings™ (EC). Secondary aims were to compare polyp miss rates, cecal intubation time, withdrawal time and total procedure time. Subjects referred for screening, surveillance or diagnostic colonoscopy were randomly assigned to undergo EC followed by SC or SC followed by EC. Both colonoscopies were performed on the same day by the same endoscopist. Polyps detected during the first procedure were immediately removed. Diminutive (1-2 mm), rectal polyps with hyperplastic appearance were not removed. Based on an expected adenoma miss rate of 35% with SC and 10% with EC, an expected mean number of adenomas of 0.75 and a 10% drop-out rate, a total sample size of 126 subjects will be required. To date, 96 subjects have been enrolled. After excluding 8 subjects due to inability to reach the cecum or other protocol violations, 88 subjects (59% male, mean age 58 ± 9 years) remained for analysis. Indications for colonoscopy were screening (n=25, 28%), surveillance (n=26, 30%) and diagnostic evaluation (n=37, 42%). Forty three subjects were randomly assigned to undergo EC first and 43 subjects to undergo SC first. In the study group, 43 adenomas were detected during first pass with EC and 7 additional adenomas during the second procedure with SC. In the control group, 14 adenomas were detected during the first pass colonoscopy with SC and 14 additional adenomas during the second procedure with EC. The adenoma miss rate (14%) in subjects undergoing EC first was significantly ($p=0.001$) lower compared to subjects undergoing SC first (50%). Similar results were found for polyp miss rates, i.e. 11% for EC and 59% for SC ($p<0.001$). Mean cecal intubation times (9.4 min. vs. 8.3 min., $p=0.15$) and withdrawal times (7.3 min. vs. 6.9 min., $p=0.12$) were not significantly different between EC and SC. Mean total procedure time was longer ($p<0.001$) with EC (21.9 min.) compared to SC (17.8 min.) due to removal of more polyps.

Conclusion: The interim results of this study (inclusion of all patients expected July 2014) demonstrate that colonoscopy with EndoRings™ results in significantly lower adenoma and polyp miss rates than standard colonoscopy.

The 'golden retriever' study: improving polyp retrieval rates by providing competitive feedback

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Endoscopic surveillance is an essential part of screening programs aiming to prevent colorectal cancer. Recommendations on adequate surveillance intervals for patients with one or more colorectal polyps are predominantly based on the presence and grade of neoplasia found after histopathological evaluation. It is therefore important that resected colorectal polyps, especially right-sided lesions, are retrieved for histology. The internationally accepted standard for polyp retrieval rate is 90%. The primary aim of this study was to evaluate the effect of education and competitive feedback on the overall polyp retrieval rate. The secondary aim was to investigate the association between polyp size or location and non-retrieval.We included consecutive colonoscopies in a single center between April 1, 2013 and April 1, 2014. Patients with inflammatory bowel disease or familial polyposis syndromes were excluded for analysis. At 6 months after the start of the study (end of September 2013), all gastroenterologists and trainees performing colonoscopy were educated on the importance of polyp retrieval and techniques to improve retrieval. Then, the polyp retrieval competition started by publicly providing feedback on the retrieval rate of all endoscopists and the monthly best performers (or 'golden retrievers'). We compared overall retrieval rates in the six months before and after October 1, 2013.Overall polyp retrieval rate improved from 88.4% (525/594) to 93.4% (978/1047), comparing consecutive colonoscopies performed in the 6 months before and during the polyp retrieval competition (p=0.001). Non-retrieval occurred significantly more frequently in polyps ≤5 mm compared to polyps >5 mm (10.8% vs. 1.8%, p<0.001), both before and during the competition. The retrieval rate of left-sided polyps was higher compared to right-sided polyps before the competition (92.0% vs. 85.0%, p=0.008). During the competition, the retrieval rate of right-sided polyps increased (94.9%, p<0.001), whereas the left-sided retrieval rate remained 91.9% (p=0.956).
Conclusion: A simple intervention to improve awareness and dedication is able to increase both overall and right-sided polyp retrieval rates and resulted in meeting the international standard of at least a 90% retrieval rate.

The accuracy of real-time probe based confocal laser endomicroscopy for differentiation of colorectal polyps during colonoscopy

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Reliable real-time differentiation between neoplastic and non-neoplastic colorectal polyps during colonoscopy can guide treatment decisions and reduce the need for post hoc histologic evaluation of resected polyps. In the hands of experts, probe based confocal laser endomicroscopy (pCLE) could be a highly accurate technique for this purpose. Previous studies have shown a short learning curve for off interpretation of pCLE images of colorectal polyps. It is however not known whether colonoscopists who start to use this technique can also accurately differentiate colorectal polyps during routine colonoscopy by using real time pCLE to obtain and directly evaluate images. The primary aim was to determine the diagnostic accuracy of real-time pCLE for the differentiation of colorectal polyps during the first 50 pCLE cases of two endoscopists routinely performing colonoscopy. The secondary aim was to compare the sensitivity for diagnosing neoplasia in small polyps (≤5 mm) in this study with the sensitivity threshold of ≥90% that is required for selective polypectomy or 'resect and discard' strategies. We included patients of 45 years or older undergoing colonoscopy for screening, surveillance or diagnostic work-up between August 2012 and April 2014. After a training session for obtaining and interpreting pCLE images, two senior endoscopists performed 50 pCLE procedures each. Intravenous fluorescein was used as contrast agent. All polyps were resected endoscopically and the histologic diagnosis of an expert pathologist was used as reference. Primary outcome was the diagnostic accuracy, defined as the percentage of polyps for which pCLE correctly differentiated between non-adenomatous, adenomatous and carcinomatous polyps. The overall diagnostic accuracy of real time pCLE for colorectal polyps was 75% and did not differ between the endoscopists (74% vs. 76%, p=0.81). The accuracy remained stable when comparing the first 25 procedures with the last 25 procedures of both endoscopists (respectively 76% vs. 72%, p=0.75 and 76% vs. 76%, p=1.00). According to the size of the polyps, accuracy was non-significantly different (67% for 68 polyps ≤5 mm, 86% for 21 polyps ≤10 mm and 89% for 18 polyps >10 mm; p=0.08). Sensitivity for detecting neoplasia in polyps ≤5 mm was 65% (59% for right sided polyps and 73% for left sided polyps).
Conclusion: the diagnostic accuracy of two endoscopists starting to use real time pCLE in colorectal polyps was 75% and remained stable during the first 50 procedures. Sensitivity for detecting neoplasia in small polyps is below the required 90% and suggests that real-time pCLE cannot be used to guide follow-up decisions.

Endoscopic gastroplication as a treatment for morbid obesity is safe and effective: it affects ghrelin response, desire to eat and caloric intake and results in significant weight loss

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In this study we evaluate a novel endoscopic method for gastroplication, as a treatment for morbid obesity. Aim of the study is to evaluate safety and primary effectiveness and to explore the effect on the hunger hormone ghrelin. Seventeen patients (6 male, median age 37 years, IQR 32-48) with a median BMI of 40.2 kg/m2 (IQR 37.6-42.8) were included. The Articulating Circular Endoscopic (ACE) stapler was used to create eight to ten plications in the stomach. Before the procedure and 1 and 12 months after, 10 patients underwent a standardized meal test to assess food intake, visual analogue scales (VAS) for desire to eat and plasma ghrelin responses. Several VAS and blood samples were obtained between 0 and 240 minutes after a standardized breakfast (210 kcal). Fasting ghrelin, early postprandial incremental area under the curve (iAUC) of ghrelin (0-45 min), total postprandial area under the curve (AUC) of desire to eat and ad libitum meal intake after 240 minutes were assessed. Adverse events were gastric pain (n=7, range 1-3 days), sore throat (n=4, 2-3 days), diarrhea (n=4, 2-15 days), nausea (n=3, 2-4 days), constipation (n=4, 3-14 days), and vomiting (n=3, 1-4 days). All adverse events resolved with conservative treatment. The median percentage excess weight loss in the first year was 34.9% (IQR 17.8-46.6). Post-operative fasted ghrelin levels were significantly higher, averaging 46.5±5.9 before the procedure, 56.0±5.7 one month and 63.4±5.2 pg/mL one year after the procedure (before vs one year, $p<0.01$). Following standardized breakfast, the ghrelin response was stronger both at one month and one year follow-up compared to base (iAUC: 6.9±85 vs -35.1±11.3 vs -36.1±10.7 pg/mL*min; before vs one month $p<0.05$; before vs one year $p<0.01$). The total AUC for desire to eat decreased from 714.5±114.9 to 291.3±65.7 and 484.5±94.1 mm*min one month and one year after the procedure respectively (before vs one month $p<0.01$; one month vs one year $p<0.05$). The mean amount of caloric intake at the ad libitum meal decreased from 853.7±94.2 to 445.6±42.9 and 602.5±64.2 kcal (before vs one month $p<0.01$; one month vs one year $p<0.05$) after one month and one year respectively. In this first human application of the ACE stapler we demonstrate that the procedure is technically feasible and safe. One hundred and sixty plications were created in 17 patients without significant problems and preliminary weight-loss results are promising. We observed that the postprandial decrease in ghrelin levels was more pronounced after the stomach had been plicated. This was associated with reduction of ad libitum meal intake and more pronounced satiation. We postulate that the observed changes in ghrelin responses contribute to the reduced caloric intake and weight loss after endoscopic gastric plication.

Surveillance of Barrett's esophagus and mortality from esophageal adenocarcinoma: a population-based cohort study

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Barrett's esophagus (BE) is associated with an increased risk of developing esophageal adenocarcinoma (EAC). Patients with a known diagnosis of BE are usually advised to participate in an endoscopic surveillance program but its clinical value is disputed. Our objective was to compare patients participating in a surveillance program for BE prior to EAC diagnosis with those not participating in such a program, and to determine predictive factors for mortality from EAC. All patients diagnosed with EAC between 1999 and 2009 were identified in the nationwide Netherlands Cancer Registry. These data were linked to PALGA, the Dutch Pathology Registry. Prior surveillance participation was defined as a BE diagnosis ≥ 1 year before EAC detection, with ≥ 1 additional endoscopy with biopsies between BE and EAC diagnosis. In patients with inadequate surveillance, the interval between the first BE and EAC diagnosis was defined as > 1.5 times longer than expected based on the diagnoses of intermediate histologic evaluations and recommended intervals in surveillance guidelines. Multivariable Cox proportional hazards regression analysis was performed to identify predictors for mortality at 2-year and 5-year follow-up. In total, 9,780 EAC patients were included, of which 542 (5%) underwent adequate surveillance in accordance with the surveillance guidelines. The latter group had an earlier tumor stage at diagnosis and a higher chance of undergoing curative treatment compared to patients undergoing inadequate (n=120, 1%) or no surveillance with (n=219, 2%) or without (n=8,989, 92%) a known prior BE diagnosis. Two-year (and 5-year) mortality rates were lower in patients undergoing adequate surveillance (adjusted (adj.) HR0.70, 95%CI0.60-0.82). Other factors associated with lower mortality from EAC were lower tumor stage (stage I vs. IV HR0.20, 95%CI0.17-0.24), cancer treatment in an academic hospital (HR0.84, 95%CI0.78-0.89), and combining surgery with neoadjuvant chemo/radiotherapy (HR0.65, 95%CI0.57-0.74).
Conclusions: Participation in a surveillance program for BE, but only if adequately performed, reduces mortality from EAC. Nonetheless, it remains to be determined whether such a program is cost-effective as more than 90% of all EAC patients were not known with BE prior to diagnosis.

The SURF trial pre-assessment cohort: Spatial extent of low-grade dysplasia and extent of agreement between expert pathologists are associated with risk of malignant progression

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Low-grade dysplasia (LGD) in Barrett's oesophagus (BO) is an accepted risk factor for progression to high-grade dysplasia (HGD) or oesophageal adenocarcinoma (OAC). However, the diagnosis of LGD is subjective and it is unclear which additional factors can help identify LGD patients at increased risk of progression. For the purpose of this study, all patients screened for the SURF trial were separately reviewed by 3 expert pathologists. The SURF trial is a randomized study showing that prophylactic ablation of BO with confirmed LGD reduces progression to HGD/OAC.[1] We aim to investigate predictors of malignant progression in BO patients diagnosed with LGD. 234 LGD patients (78% male; mean 63 years ±10.7) underwent histology review by 3 expert pathologists, who separately evaluated each available level of biopsies from the BO segment. Confirmed LGD was defined as a majority diagnosis from the expert pathologists. Primary outcome was neoplastic progression (HGD/OAC) during endoscopic follow-up (FU). Median duration of FU was 41 months (IQR 22-61). Cox regression analysis was performed on the risk of malignant progression. 36/61 patients (59%) with confirmed LGD at base developed HGD/OAC. 10/173 patients (6%) who were downstaged at base to non-dysplastic BO (NDBO) demonstrated malignant progression. The hazard ratio (HR) for base confirmed LGD was 15.1 (95% CI 7.4-30.5). The HR for progression gradually increased with the number of pathologists confirming LGD. The HR's (95%CI) were 2.6 (0.8-9.1), 17.4 (6.4-47.2) and 28.6 (10.6-77.3) for 1, 2 and 3 pathologists confirming LGD, respectively. The number of levels within the BO segment with confirmed LGD also predicted progression. HR's (95% CI) were 13.8 (6.5-29.4), 14.6 (4.9-43.5) and 26.4 (8.8-79.0) for 1, 2 and 3 or more levels with confirmed LGD, respectively. 15/173 patients who were downstaged to NDBO at base developed confirmed LGD at a subsequent FU endoscopy, of whom 5 patients had malignant progression. Time-dependent Cox regression yielded a HR of 20.8 (95% CI 8.80-49.07) for occurrence of confirmed LGD at any time during follow-up.

Conclusion: A consensus LGD diagnosis is the most important predictor of malignant progression. Multilevel LGD and extent of agreement between expert pathologists were strongly associated with risk of HGD/OAC. These characteristics might help select BO patients with LGD for prophylactic ablation therapy.

Stent placement for complications of bariatric surgery

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Objectives: Worldwide, morbid obesity is a major health problem with an increasing prevalence which is often accompanied by co-morbidity and increased mortality. Bariatric surgery is an effective surgical therapy. The most serious early complication of these operations is anastomic leakage. This is a life threatening complication which occurs in 1–5% of patients with a gastric bypass and 0.7–2.2% after sleeve gastrectomy. In the acute phase anastomic leakage can be treated by endoscopic stent placement. Aim: To evaluate if endoscopic stent placement is a definite treatment for anastomic leakage or a temporary solution until reoperation. Methods: A retrospective study was performed between 2010 and 2013. Medical charts of all patients who underwent bariatric surgery in our clinic were reviewed. All patients who underwent stent placement because of anastomic leakage were included in the study. The following data were collected: interval between surgery and stent placement, number of stents needed, median number of days the stent was in situ and outcome after stent placement. Results: Between 2010 and 2013 1856 patients underwent bariatric surgery in our hospital. A sleeve gastrectomy was performed in 742 (40%) patients and a gastric bypass in 1114 (60%) patients. In total 17 patients who underwent bariatric surgery (16 sleeve gastrectomies, 1 gastric bypass), had an anastomic leakage for which stent placement was needed. The median number of stents used was 2 [range 1-5]. The first endoscopic stent was placed after a median of 43 [range 5-252] days after surgery. The first stent was removed after a median of 34 [17-84] days. After stent placement 11 (69%) patients fully recovered and did not need a further intervention. In 4 (25%) patients a stenosis was observed for which stent placement was not sufficient and the gastric sleeve had to be converted to a gastric bypass, 1 patient died one week after conversion due to a sepsis. In 1 patient a fistula was observed that was closed with hemoclips. Early anastomic leakage (within thirty days after surgery) was observed in 11 (65%) patients of which 8 (73%) fully recovered after stent placement. Late anastomic leakage (more than thirty days after surgery) was observed in 6 (35%) patients of which 4 (67%) fully recovered after stent placement. Conclusion: Endoscopic stent placement is a safe and effective non-invasive technique for the treatment of anastomic leakage after bariatric surgery. A reoperation is only required in a small number of patients. Most patients only need 1 to 2 stents. In addition, there is no difference in outcome after stent placement between patients with early or late anastomic leakage.

Risk of colon cancer after acute uncomplicated diverticulitis: is colonoscopy really necessary? An irish perspective

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Patients with diverticulosis have an Approximately 20-25% lifetime risk of acute diverticulitis. Usually it has an uncomplicated course, manifesting Primarily as pain. Computed tomography (CT) accurately diagnoses, and Allows objective classification into complicated and uncomplicated disease. Because CT features of acute diverticulitis (eg thickening of the bowel wall) Can also be present in colon cancer, it has long leg That patients undergo colonoscopy recommended to exclude colon cancer after an episode of acute diverticulitis. While the role of colonoscopy following an episode of acute uncomplicated diverticulitis remains controversial, our aim was to Evaluate the need of colonoscopy after an episode of acute uncomplicated diverticulitis, Diagnosed both clinically and by computed tomography (CT). This retrospective cohort study was Conducted in an academic hospital cente in Dublin, Ireland. Inclusion criteria for the study enrolled patients with uncomplicated cases of CT diagnosis of acute diverticulitis at any point during admission in 2007-2012. CT, colonoscopy and histology reports were Examined. A total of 97 patients met our inclusion criteria. The 97 patients comprised 53 (54.6%) women and 44 (45.4%) men with median age at diagnosis of 66 (range 32-88) years in women and 53 (range 18-90) years in women. Of this patient cohort, 88 (90.7%) of the 97 patients underwent subsequent colonic evaluation with colonoscopy or had undergone colonoscopy within the Preceding year. Colonic polyps were biopsied and present in 13 (13.4%) of patients. 9 (9.3%) had hyperplastic polyps and 3 (3.1%) had adenomas. All three adenomatous polyps Demonstrated low grade dysplasia. Only a single patient (1.1.4%) in our study was found to have a histological diagnosis of colonic malignancy. The yield of colonic neoplasia at any stage in our study (1.14%) was equivalent to That detected by screening programs in asymptomatic Individuals among an international level, 0.8-1.1%. In addition, our result compares to a calculated estimated prevalence of 1.4% among Irish adults older than 65 years.

Conclusion: Unless colonoscopy is part of a screening program, routine colonoscopy following an episode of CT-diagnosed acute uncomplicated diverticulitis is unnecessary in the absence of other alarming clinical signs and family history of colorectal cancer. We recommend that this group of patients to be followed up closely in an outpatients clinic setting; evaluating signs & symptoms, tumor markers and FOB studies and to ensure that they are enrolled in their national screening program for colorectal cancer.

Surveillance for hepatocellular carcinoma is associated with better survival: Results from a large cohort in the Netherlands

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Although current guidelines advise surveillance for hepatocellular carcinoma (HCC) in high risk patients, its effectiveness is controversial. We here explore potential beneficial effects of surveillance in "real life" clinical practice. All patients with HCC diagnosed in the period 2005-2012 in five Dutch academic centers were evaluated. Surveillance was defined as at least 2 screening tests during the 3 years before HCC diagnosis. HCC was diagnosed in 1290 patients (60% of all Dutch HCC patients). After exclusion of 214 patients because of missing data, 1076 HCC patients were analyzed of which 379 (33%) underwent HCC surveillance. Median number of surveillance tests in the 3 years before HCC diagnosis was 6 (range 2-23: 3 (range 0-9) by ultrasound, CT or MRI and 2 (range 0-15) by alpha-fetoprotein (AFP)). Median time interval between last negative radiologic imaging and HCC diagnosis was 9.7 months (<6 months in 26% of patients, 6-12 months in 37%, 12-18 months in 21% and >18 months in 16%). Viral hepatitis was the underlying cause in 37%, alcohol abuse in 28%, NAFLD in 11%, hemochromatosis in 2%, other chronic liver diseases in 3% and no underlying liver disease in 19%. Viral hepatitis was more common in the surveillance group, whereas NAFLD or no underlying liver disease were more common in the group without surveillance. Cirrhosis was present in 95% of the surveillance group and in 58% of the non-surveillance group (P<0.001).In the surveillance group, tumor size was significantly smaller (3 cm vs 6 cm), with lower AFP (17 vs 44 µg/L), earlier tumor stage (BCLC 0 and A combined: 57% vs 19%) and resection/transplantation (30% vs 25%) or locoregional treatment (41% vs 23%) more often applied than in the non-surveillance group. In the surveillance group, 1-, 3- and 5-years survival rates were significantly higher than in the non-surveillance group (68%, 45% and 38% vs 53%, 30% and 27%; log rank test p<0.001). Survival benefit in the surveillance group remained significant after adjustment for lead time bias based on assumed HCC doubling time of 60 days, but not with doubling time of 120 days. In multivariate analysis, surveillance was an independent predictor for overall mortality (adjusted HR 0.48, 95% CI 0.39-0.60) after adjusting for age, cause of underlying liver disease, presence of cirrhosis and MELD score. Analysis in the subgroup of cirrhotics yielded similar results (adjusted HR 0.48, 95 CI 0.38-0.60).
Conclusions: In this "real life" study, HCC surveillance was associated with a smaller tumor size, earlier tumor stage, and curative therapy and was an independent predictor of better survival.

Sub-stratification of hepatocellular carcinoma risk in men with primary biliary cirrhosis: results of an international multicenter study

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Background: Hepatocellular carcinoma (HCC) is an infrequent yet critical event in primary biliary cirrhosis (PBC) and development is heavily influenced by patient gender. However, it remains unclear whether HCC risk can be further stratified in men, a population deemed inherently high-risk. Methods: Individual patient-data was collected from over 15 North American and European liver centres, spanning >40-years observation period. Risk-factor analysis was performed using Cox proportional hazard regression models and Kaplan-Meier estimates (SPSSv21). Results: Across a cohort of 4565 patients with confirmed PBC (median follow-up 7.1 years), 123 cases of HCC were identified. Men were more likely to develop HCC than women (incidence rate: 6.7 vs. 2.6 cases per 1,000 patient years; HR: 2.91, 1.9-4.8 $p<0.0001$), and this difference retained significance when restricting the analysis to males and females with advanced disease at PBC diagnosis (HR 2.9, 95% CI 1.60-5.32, $p<0.001$). However, significant differences between genders were no longer apparent when the incidence was compared in patients with early-stage PBC ($p=0.49$). The proportion of PBC patients receiving ursodeoxycholic acid (UDCA) was similar between men and women (84% versus 85%, respectively; $p=0.75$); however, on stratifying for biochemical response (Paris-I) the highest HCC risk was observed in non-responding male patients, and significantly greater than male-responders and female non-responders (overall log-rank $p<0.001$). The cumulative risk of getting HCC was comparable for male responders and female non-responders ($p=0.77$).

Conclusion: Male gender is a significant risk factor for development of HCC in PBC although effective risk stratification can be furthered by assessment of disease stage and application of biochemical response criteria.

The role of the routine bone scintigraphy in detecting bone metastasis in hepatocellular carcinoma

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Background and aim: The most prevalent metastatic sites of hepatocellular carcinoma (HCC) are respectively the liver, lungs, abdominal lymph nodes and the bone. Despite the fact that bone metastasis in HCC patients are seen more frequently nowadays, the skeleton is still an uncommon site. Current guidelines recommend bone scintigraphy for pre-operative staging pior to liver transplantation in patients diagnosed with HCC, but bone scintigraphy is not routinely recommended in all patients diagnosed with HCC. The aim of this retrospective study is to investigate the yield of routine use of bone scintigraphy in detecting bone metastasis in HCC patients at time of diagnosis and during follow-up. Methods: Retrospective analysis of consecutive patients diagnosed with HCC in a tertiary center from January 2003 to December 2011 who underwent bone scintigraphy (n=176). The chance of a positive bone scan at base and during follow-up was determined. Results: Of all 176 patients diagnosed with HCC, six patients had bone metastasis (3,4%). Of these six patients, two were diagnosed with bone metastasis based on a routinely performed bone scintigraphy at time of diagnosis. In four patients, bone metastases were diagnosed during follow-up. In two out of four patients, bone scintigraphy was performed because of the presence of bone pain. The other two patients had bone metastases detected on a routinely performed bone scintigraphy during follow-up. This implicates that the incidence of bone metastases detected with the routine use of bone scintigraphy was only 2,3% (4/176).
Conclusion: Bone metastases are rare in HCC. There is no indication for the routine use of bone scintigraphy in all patients diagnosed with HCC.

Long-term follow-up of patients hospitalized for alcoholic hepatitis

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Alcohol use is a major cause of liver disease worldwide. Only few studies have investigated the long-term outcome of patients with alcoholic hepatitis. The aim of our study is to assess the long-term outcome of patients admitted for acute alcoholic hepatitis (AH) in our center and to determine which factors are associated with long-term survival. We retrospectively collected data from patients hospitalized for AH in a Dutch teaching hospital between January 2009 to December 2013. Forty-four patients were included. The median age was 56.7 years (IQR 50.0-65.2), 26 (59%) were males, 6 patients had a previous diagnosis of cirrhosis and 13 additional patients were diagnosed with cirrhosis during the index hospitalization. Twenty-two patients met criteria for severe AH with Maddrey scores ≥ 32 and none of the patients presented with hepatic encephalopathy. Twenty-six patients had anemia at the time of admission. Causes of anemia were haemolysis in 8 patients (31%), macrocytosis of liver disease in 11 patients (42%), and hypersplenism in 11 patients (42%), 6 of these patients having both macrocytosis and hypersplenism. None of the anemic patients presented with acute variceal hemorrhage. Fifteen patients died, ten due to liver-failure, two due to infections and in three patients cause of death was unknown. Four of these patients died during index hospitalization .The 40 remaining patients were followed up for a median of 10 months (IQR 3-23). Follow-up was complete in 95.5% of the patients. Overall 3-year survival was 53.6% (95% confidence interval (CI) 33.6-73.6). Multivariate Cox regression analysis showed that age (HR 2.4 (95% CI 1.2-4.9, p=0.019), base hemoglobin corrected for lower limit of normal (HR 0.23 (95% CI 0.0-0.5), p=0.020) and base total bilirubin (HR 1,1 (95% CI 1.0-1.2), p=0.001) were statistically significantly associated with mortality. Kaplan Meier survival analysis using time of hospital discharge as t=0, showed that sobriety was statistically significantly associated with long-term survival (3-year survival 77% (95% CI 53-100)) for abstinent patients versus 33% (95% CI 2.0-63) for patients with continued alcohol abuse, p=0.015).

In conclusion, base anemia, older age and elevated total bilirubin are negatively correlated with long-term survival of patients hospitalized for alcoholic hepatitis. In patients surviving initial hospitalization, sobriety is another important predictor of long-term survival.

Polymorphisms at PRSS1–PRSS2 and CLDN2–MORC4 loci associate with alcoholic and non-alcoholic chronic pancreatitis in Europe

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Objective: Several genetic risk factors have been identified for non-alcoholic chronic pancreatitis (NACP). A genome-wide association study reported an association of chronic pancreatitis (CP) with variants in PRSS1–PRSS2 (rs10273639; near the gene encoding cationic trypsinogen) and CLDN2–MORC4 loci (rs7057398 in RIPPLY1 and rs12688220 in MORC4). We aimed to refine these findings in a large European cohort. Design: We studied 3,062 patients with alcohol-related CP (ACP) or NACP and 5,107 controls. Also 1,559 German patients with alcohol-associated cirrhosis or alcohol dependence were included for comparison. We used logistic regression to examine genotype-phenotype relationships. Results: The association with ACP was strongest for rs10273639 (odds ratio [OR], 0.63; 95% confidence interval [CI], 0.57–0.69). ACP was associated with variants rs7057398 (OR, 1.48; 95% CI, 1.37–1.60) and rs12688220 (OR, 1.57; 95% CI, 1.45–1.70) in men and in women, here with lower p-values (OR, 1.47; 95% CI, 1.21–1.78 and OR 1.62; 95% CI, 1.34–1.96). Similar results were obtained when German ACP patients were compared to those with alcohol-associated cirrhosis or alcohol dependence. In the overall population of patients with NACP, association with rs10273639 was lower (OR, 0.91; 95% CI, 0.83–1.0), whereas rs7057398 and rs12688220 were associated with NACP in women only (OR, 1.30; 95% CI, 1.14–1.49 and OR, 1.23; 95% CI, 1.07–1.41).
Conclusion: The single-nucleotide polymorphisms rs10273639 at the PRSS1–PRSS2 locus and rs7057398 and rs12688220 at the CLDN2–MORC4 locus are associated with CP and strongly affect risk for ACP, but only partly for NACP.

Single-session aspiration sclerotherapy results in progressive regression of hepatic cysts and symptomatic relief: a prospective cohort

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Large symptomatic hepatic cysts can be treated by aspiration sclerotherapy (AS). Several retrospective studies suggest that AS is safe and effective. However, the effect of AS on both cyst volume and symptoms has never been evaluated in a prospective fashion. Therefore, the aim of our study was to document efficacy of AS in terms of cyst volume reduction and symptom relief at predetermined time points. We established a cohort of patients with symptomatic hepatic cysts (>5 cm) subjected to single-session AS from June 2012 onwards. The intervention comprised complete percutaneous hepatic cyst aspiration followed by instillation of 96% ethanol (ethanol-to-aspirated-volume ratio of 10%, never exceeding 50 mL) for 10 minutes. Primary endpoint was reduction in cyst volume after one and three months compared to base measured by ultrasonography. At evenly spaced time series, we assessed severity of symptoms using a standardized, 7-points scale gastro-intestinal symptoms (GIS) questionnaire. For subsequent analysis we dichotomized symptoms for absence (0-1) or presence (2-6). We applied the non-parametric Wilcoxon signed-rank test and Cochran's Q test, respectively, to compare cyst volumes and symptoms during follow-up. We included 24 patients (22 females, median age 58 years (IQ 54-66)) with a total of 25 hepatic cysts treated by AS. Median hospital admission was one day. One month after AS, median volume was reduced from 623 ml (IQ 310-1288) to 278 ml (IQ 183-691) resulting in a proportional reduction of 55% ($p < 0.001$). Volume decrease continued to a median of 161 ml (IQ 36-469) at three months with a proportional reduction of 74% ($p < 0.001$). Similarly, median severity of upper abdominal pain, heartburn, regurgitation, loss of appetite, early satiety, and involuntary weight loss decreased in patients that completed the GIS questionnaire after one and three months ($p < 0.05$; $n = 15$). Subgroup analysis six months after AS revealed further volume regression to a nadir of 50 ml (IQ 10-441) corresponding with a proportional volume reduction of 92% ($n = 17$; $p < 0.001$). Conclusion: We established in this prospective study that single-session AS results in continuous regression of hepatic cysts accompanied by symptomatic relief.

The relevance of the location (including the celiac trunk region) of involved nodes in patients with cancer of the distal esophagus or gastro-esophageal junction

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Truncal node metastases and lymphatic dissemination in the proximal field (subcarinal, paratracheal and aortopulmonary window lymph nodes) after neoadjuvant chemo-radiation do not alter the TNM classification. The incidence and impact of these relatively distant lymph node metastases on long-term survival remains unclear. Therefore the aim of the present study is to identify the prognostic significance of the location of lymph node metastasis in patients who underwent neoadjuvant chemoradiation therapy followed by a transthoracic esophagectomy. Between March 1994 and September 2013 a total of 286 consecutive patients with cancer of the mid-to-distal esophagus or gastroesophageal junction (GEJ) who underwent potentially curative transthoracic esophageal resection after neoadjuvant chemoradiotherapy were included. The majority of patients was male (219 patients, 76.6%) and had an adenocarcinoma (208 patients, 72.7%). The tumor was located in the mid-esophagus in 53 (18.5%), in the distal esophagus in 210 (73.4%) and at the GEJ / cardia in 23 (8.0%) patients. 279 (97.6%) patients underwent a radical (R0) resection. 112 (39.2%) patients had a complete or near complete pathologic response (tumor regression grade 1 or 2). 110 (38.5%) patients had nodal metastases in the marked resection specimen. 63 (22.0%) patients were classified as N1, 33 (11.5%) patients as N2 and 14 (4.8%) patients as N3. Of the patients with tumorpositive lymph nodes , 40 (36.4%) patients had metastases localized in locoregional nodes, 35 (31.8%) patients had localisation of metastases in at least one truncal node, 14 (12.7%) patients had positive nodes in the proximal field and 5 (4.5%) patients had positive truncal nodes as well as positive proximal lymph nodes. Median disease free-survival was 90.3 months for N0 patients, 65.7 months for patients with nodal metastases limited to locoregional nodes, 18.8 months for patients with truncal nodes, 15.4 months for patients with lymph node in the proximal field and 10.1 months if nodes were positive in both the truncal and the proximal field. In multivariate analysis yN stage as well as location of lymph nodes were independently associated with a worse survival.
Conclusions: The present study demonstrated that the location of positive nodes after neoadjuvant chemoradiation therapy harbors important prognostic information. It seems that celiac and/or proximal field nodal involvement is a “marker” for widespread microscopic disease that may later become evident, since patients with positive nodes in those regions have a dismal prognosis. Future studies need to investigate to what extent node status should influence surgical decision making.

FIT-based colorectal cancer screening in subjects aged 50-54 years

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In The Netherlands FIT-based CRC screening currently starts at the age of 55 years. Several studies advocate to start screening at the age of 50 years. We therefore assessed the diagnostic yield and attendance of one-sample FIT screening for subjects aged 50-54 compared to 55-75 years. A representative sample of the Dutch population aged 50-75 years was randomly invited for FIT-screening (OC sensor, Eiken Chemical Co. Japan) between November 2006 and March 2013. For the purpose of this study only first time invitees were analyzed. Subjects were divided into 3 age groups: 50-54 (group I), 55-64 (group II), and 65-75 (group III) years old. If tested positive (>50 ng Hb/mL), subjects were referred for colonoscopy. Advanced neoplasia was defined as advanced adenoma (adenoma >10 mm, or >25% villous component and/or high grade dysplasia) and CRC. Detection rate was defined as the percentage of participants identified with CRC or advanced adenoma. Subjects were excluded when they had a history of CRC, IBD, colon imaging ≤3 years, had a life expectancy < 5 years, or did not give informed consent. From a total of 8944 (49.8% male) eligible invitees, 3465 (47.7% male) subjects were allocated in group I, 3432 (50.9% male) in group II, and 2047 (51.4% male) in group III. Attendance rate for group I, II and III was 57.7%, 63.8% and 64.4%, respectively (p≤0.001).Positivity rate was 5.6%, 7.9%, and 11.8% for group I, II, and III (p≤0.001). In group I 105 (94.6%) subjects proceeded to colonoscopy. CRC was detected in 1 patient, and in 23 patients an advanced adenoma was found. In group II 163 subjects (94.2%) proceeded to colonoscopy, 10 patients with CRC and 53 patients with an advanced adenoma were detected. In group III 151 (97.4%) subjects underwent colonoscopy. CRC was detected in 11 patients, and advanced adenoma in 61 patients. Detection rate for CRC in group I, II and III was 0.1% 0.5% and 0.8% respectively (p=0.001). Detection rate for advanced neoplasia was 1.2%, 2.9%, and 5.5% (p≤0.001). Positive predictive value for advanced neoplasia was 22.9%, 38.7%, and 47.7% (p=0.001). True positives per 1000 invited were 4.0, 19.5 and 36.2 (p=0.001). In a FIT-based CRC screening program, attendance in subjects aged 50-54 is significantly lower compared to subjects aged 55-75 years and significantly fewer cases of CRC and advanced adenoma are found. These data support the current practice to start FIT-based CRC nationwide screening from the age of 55.

Loss of KCNQ1 expression in stage II and III colon cancer is associated with poor prognosis

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Colorectal cancer (CRC) remains the third most common cancer in the world, with an estimate mortality of almost 700.000 deaths in 2012. One of the key challenges is to accurately identify subgroups of patients who would or would not benefit from adjuvant therapy. In particular, a better classification is needed to identify stage II CRC patients at high- and stage III CRC patients at low-risk of developing recurrences. KCNQ1 was previously identified as a high-frequency common insertion site locus in sleeping beauty DNA-transposon based forward genetic screens for colorectal cancer in mice. The KCNQ1 gene encodes for potassium voltage-gated channels and plays a role in cardiac arrhythmias. Recently, we showed that low KCNQ1 expression in liver metastases of stage IV CRC patients was associated with poor survival. The aim of this study was to analyze the prognostic value of KCNQ1 protein expression in stage II and III colon cancer. Clinicopathological data and FFPE tissues were collected from 386 stage II and III colon cancer patients, who underwent surgery between 1996 and 2005. Tissue microarrays were generated, stained for KCNQ1 by immunohistochemistry, scored microscopically, and analyzed for association with survival using SPSS. Tissue cores could be evaluated for 377 colon cancer patients, of whom 241 patients had high KCNQ1 expression (63.9%) and 136 patients had low KCNQ1 expression (36.1%). Logrank-testing and Kaplan Meier curves showed a significant higher overall survival (OS) rate in the KCNQ1-high expression group ($P<0.01$), as well as disease specific survival (DSS) and disease free survival (DFS) (both $P<0.01$). Separate analyses of stage II and stage III CRC patients revealed similar results for OS ($P=0.042$ and $P<0.01$, respectively), DSS and DFS ($P<0.01$). In multivariate COX-regression analysis for OS, DSS en DFS, KCNQ1 expression was significantly associated with survival ($P<0.01$) together with known prognostic clinicopathological parameters like angioinvasion, tumor-spill, perforation and N-status.
Conclusion: Our results indicate that low KCNQ1-expression is associated with poor survival in stage II and III colon cancer patients.

Impact of surveillance for long-segment Barrett's esophagus on tumor stage and survival of patients with neoplastic progression: Results of a Large Multicenter Prospective Cohort Study

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Surveillance is recommended for Barrett's esophagus (BE) to detect esophageal adenocarcinoma (EAC) at an early stage. However, the value of surveillance for Barrett's esophagus (BE) is under discussion given the overall low incidence of neoplastic progression and lack of evidence that it reduces the risk of advanced esophageal adenocarcinoma (EAC) and improves survival. The aim of this study was to evaluate the impact of BE surveillance on tumor stage and survival of BE patients with neoplastic progression. Seven hundred eighty-three patients with BE of at least two centimeter were included in a multicenter prospective cohort and followed during surveillance according to the ACG guidelines. Incident cases of high-grade dysplasia (HGD) and esophageal adenocarcinoma (EAC) were identified. Patients with neoplastic progression were treated with intensive surveillance for focal HGD, endoscopic treatment for multifocal HGD or early EAC, and esophagectomy for advanced EAC. EAC staging was performed according to the 7th UICC-AJCC classification. Survival data were collected and cross-checked using death and municipal registries and compared to data of patients with EAC in the general population based on data from the Dutch cancer registry. Information on cause of death was obtained from the general practitioner or gastro-enterologist and was compared to cause of death in age and gender matched controls in the general population based on data from the Dutch central statistical office. Cox-regression models were used to calculate hazard ratio's (HR) and 95% confidence intervals (CI). Fifty-three patients developed HGD or EAC during follow-up. Thirty-five patients (66%) were classified as stage 0, 14 (26%) as stage 1, and 4 (8%) as stage 2. EAC was diagnosed at a significantly earlier stage during surveillance than in the general population (P<0.001). The survival of BE patients with neoplastic progression during surveillance was worse than those of patients without neoplastic progression (HR 2.88, 95% CI 1.57-5.31), better than those of patients with EAC in the general population (HR 0.16, 95% CI 0.09-0.29), and comparable to those of patients with stage 0 or 1 EAC in the general population. Four percent of BE patients undergoing surveillance died due to EAC.

Conclusion: BE surveillance enables the detection of EAC at an early stage when endoscopic treatment is still feasible. The 5-year survival of BE patients undergoing surveillance corresponds to the survival of patients with stage 0 or 1 EAC in the general population. The results of this study therefore support current guidelines recommending endoscopic surveillance in long-segment BE patients.

Evaluating the current endoscopy surveillance guide in hereditary diffuse gastric cancer

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Individuals with hereditary diffuse gastric cancer due to an E-cadherin (CDH1) gene germ mutation have an 80% lifetime risk to develop diffuse gastric cancer and are therefore advised to consider a prophylactic total gastrectomy. In more than 80% of gastrectomy specimens signet ring cell (SRC) foci are observed in the mucosa. These foci are considered to be precursor lesions, but are not easily recognized during endoscopy. In 2008, guidelines for endoscopy surveillance were formulated during the 7th workshop of the International Gastric Cancer Linkage Consortium in Cambridge. We evaluated the efficacy of the 'Cambridge guidelines' in patients with a CDH1-gene mutation. Between December 2008 and March 2014, all consecutive and asymptomatic CDH1-gene mutation carriers underwent annual surveillance endoscopy according the Cambridge protocol. This protocol consists of an endoscopy using a white light high-definition endoscope with narrow band imaging (NBI) and careful inspection of the mucosa during at least 30 minutes during conscious sedation. Biopsy samples are taken from identified lesions and at random from 5 locations (antrum, transitional zone, body, fundus, cardia; 6 biopsies each). In 25 CDH1 mutations carriers (14F/11M, mean age 46 years, range 21-82 years) from 7 different families 36 surveillance endoscopies were performed according to the Cambridge protocol. In 7 patients more than one endoscopy was performed, with a mean interval between endoscopies of 6,8 months. In 20 patients pale lesions were observed, containing SRCs in 10 (50%) of the targeted biopsy samples. In 24 patients targeted biopsies of non-pale lesions showed SRCs in two (8%). This concerned a suspicious small ulcer and the image of focal linitis plastica that proved to be a T1bN0M0 and T4N0M0 adenocarcinoma, respectively. In 3 of 24 patients (13%) SRCs were found in random biopsies. In these 3 patients, obtained targeted biopsies also identified SRC foci.

Conclusion: Careful inspection of the mucosa by white light high definition endoscopy and NBI could identify SRCs in about 50% of CDH1-gene mutation carriers. Consequently, precursor lesions of diffuse gastric cancer may thus be recognized endoscopically. The use of random biopsy samples did not additionally contribute to identification of SRC foci.

Oxaliplatin related sinusoidal obstruction syndrome is correlated with down-regulation of miR-150 and miR-21

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Background and aims: Neoadjuvant treatment with systemic chemotherapy allows 10% to 30% of patients with initially unresectable colorectal liver metastases (CRLM) to be cured by liver surgery. However, 50% to 70% of these patients develop sinusoidal obstruction syndrome (SOS). Several studies have shown that SOS is oxaliplatin regimen specific and correlated with impaired tumor regression grade, recurrence free survival and overall survival. The molecular mechanisms which potentially underpin these clinical findings remain unclear. Methods: A matched pair control study was conducted from a prospective cohort of patients that underwent liver surgery for CRLM between 2008 and 2009. miRNA expression profiles in non-tumor frozen liver samples were analyzed using Agilent miRNA microarrays on a selected population of 20 patients. Ten patients with high grading SOS (moderate n=7; severe n=3) were paired with 10 patients without SOS. Patients were matched by number of oxaliplatin cycles, oxaliplatin cumulative dose, oxaliplatin treatment-liver surgery interval, sex, age, body mass index, and preoperative alanine transaminase (ALT) and aspartate transaminase (AST). Overall survival and recurrence free survival data were recorded. Results: Of 2000 miRNAs studied, no miRNAs were significantly upregulated. However, only miR-150 and miR-21 were significantly downregulated in the high SOS grading group. Fold changes were 1.46 ($p = 0.035$) and 1.34 ($p=0.028$), respectively. To analyze the association of miR-150 and miR-21 expression with survival, we classified the lower 50th percentile and upper 50th percentile of expression as low miRNA and high miRNA, respectively. Importantly, patients who had low miR-150 expression had shorter overall survival than patients who had high miR-150 expression ($p=0.030$, Kaplan-Meier test). Recurrence free survival tended to be shorter in the low miR-150 group ($p=0.177$). Both recurrence free survival and overall survival were not correlated with miR-21 expression levels ($p=0.668$ and 0.675, respectively).
Conclusions: Oxaliplatin related sinusoidal obstruction syndrome is correlated with down-regulation of miR-150 and miR-21. Interestingly, low miR-150 expression was related to shorter overall survival. Further studies are warranted to investigate molecular links between lower miR-150 expression and poorer tumor regression grade, recurrence free survival and overall survival in CRLM patients with SOS.

Repeated two-sample FIT screening for colorectal cancer

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For an optimal preventive effect, screening for colorectal cancer (CRC) by means of fecal immunochemical testing (FIT) requires successive rounds. With the use of two FITs per round, the diagnostic yield of advanced neoplasia may increase. Therefore, in this study we assessed the participation rate and diagnostic yield of two-sample FIT screening over three successive rounds. A representative sample of the Dutch population (n=3197) aged 50-75 years was randomly selected and invited by post for three rounds of two-sample FIT screening at 2-year intervals. Per round, participants received two identical FIT tests to sample on two consecutive bowel movements. Tests were analyzed using the OC Sensor Micro (Eiken Japan) with a positivity cut-off level of 50ng Hb/ml (10 µg Hb/g feces). Participants with at least one positive test were offered colonoscopy. Advanced neoplasia was defined as advanced adenoma (AA) (adenoma >10 mm, or >25% villous component and/or high-grade dysplasia) and CRC. For each round, we excluded individuals with a history of CRC or IBD, colon imaging ≤ 3 years, a life expectancy <5 years, inability to give informed consent, or who died, moved away or had been positive in previous rounds. Participation rates in the first, second and third round were 61.3% (1875 of 3061; 95% CI: 59.5–63.0%), 62.1% (1647 of 2654; 95% CI: 60.2-63.9%), and 64.4% (1480 of 2297; 95% CI: 62.5–66.4%), respectively. In the third round, at least one test was positive in 145 subjects (9.8%; 8.4–11.4) and both FITs tested positive in 41 subjects (2.8%; 95% CI 2.0–3.7). Of 134 patients (92%) who proceeded to colonoscopy, five patients had CRC and in 13 patients advanced adenoma were detected. The positive predictive value for advanced neoplasia was 13.4% (95% CI 8.6-20.3) for at least one positive test, and 18.4% (95% CI 9.0-33.9) when both tests tested positive. The two-sample methodology detected 61.1% additional participants with advanced neoplasia (p=0.28) who could have been missed with a single FIT test; four (80%) patients with CRC, and seven patients (53.9%) with an advanced adenoma had only one positive test.

Conclusion: After three rounds, participation rate with two-sample FIT screening remains high. Positivity rates and detection rates with two-sample FIT screening are higher compared to historical data of screening with one-sample FIT per round (van Roon Gut 2012). This implies that FIT screening with two samples increases the chance of detecting a maximum number of individuals with advanced neoplasia.

The protective effects of fasting on irinotecan induced side effects: a pharmacokinetic study

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Limitations to the use of chemotherapeutic agents are the often severe side-effects which may lead to early discontinuation of treatment. In previous work we have shown that 3 days of fasting prior to treatment with a high dose of irinotecan prevents the occurrence of side-effects in C26 colon carcinoma bearing mice, while the antitumor activity is not abrogated. To elucidate the mechanism of fasting induced resistance against adverse side effects, we have examined the pharmacokinetics of irinotecan in both fasted and ad libitum fed mice in plasma, liver and tumor. Tumor bearing BALB/c mice were divided into three groups (n=18/group). Two groups were fasted for 3 days and one group was fed ad libitum. The ad libitum fed group and one group of fasted animals were treated with 100 mg/kg irinotecan. The other fasted group received a flat dose (i.e., the same dose as ad libitum fed mice). Plasma, liver-, and tumor tissue were collected at 1,4,8,12 and 24 hours after injection. Tissues were homogenized and concentrations of irinotecan and its active metabolite SN-38 were determined using a validated reversed-phase high-performance liquid chromatography (HPLC) system. AUC curves were made to compare the results between groups. The highest, intermediate and lowest AUC value for each group was plotted. No significant differences were found for irinotecan concentrations between ad libitum fed, fasted and flat dosed fasted groups in plasma, liver and tumor. Significant differences were found in plasma and liver for SN-38. SN-38 levels in plasma were significantly lower in fasted animals ($p=0.02$). SN-38 levels in the liver were significantly lower in both fasted groups ($p=0.003$). SN-38 concentrations in tumor tissue did not differ between the groups. Our data demonstrate that 3 days of fasting prior to irinotecan administration significantly reduced SN-38 levels in plasma and liver. Importantly, SN-38 levels in the tumor did not differ between groups. These data suggest that the reduction of side effects by fasting is due to the lower systemic exposure to SN-38. Therefore, fasting before chemotherapy treatment may improve its therapeutic index, and improve treatment of colorectal carcinoma patients.

Survival after pathologic complete response in patients with cancer of the esophagus or gastro-esophageal junction

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The preferred curative strategy for esophageal cancer patients with locally advanced tumors, but without distant metastases consists of esophagectomy with preceding chemo(radio)therapy (CRT). In 10-40% of patients who are neoadjuvantly treated, there is absence of viable tumor at the time of surgery (pathologic complete response (pCR)). The aim of the present study was to define the outcome of patients with a pCR and identify predictive factors for survival in this group. Between March 1994 and September 2013 all consecutive patients with cancer of the esophagus or gastroesophageal junction who underwent esophageal resection after neoadjuvant chemo (radio) therapy were included in the present study. Multivariate Cox regression analysis was carried out to identify independent prognostic factors. Of the 463 included patients, 86 (19%) patients had a pCR (pyT0N0M0R0) (54 men, 32 women, median age: 63yrs (range 33-82 years)). 48 (56%) patients had an adenocarcinoma. Eight (9%) patients underwent neoadjuvant chemotherapy and 78 (91%) underwent neoadjuvant chemoradiation therapy. During follow-up, 25 (29%) patients developed recurrent disease. Nineteen (76%) patients developed haematogenous metastases, 6 developed lymphatic metastases (of which 3 patients with a distant lymphatic location). 5-year disease free survival was 61%, 5-year overall survival was 58%. Cox regression analysis revealed no prognostic factor for any of the tested variables (sex, age, histologic subtype, tumorlocation, type of neoadjuvant therapy, cTNM stage).
Conclusions: Patients with a pathologic complete response have a relatively good survival. However, one third of these patients developed recurrent disease. Thus far it is unclear how these patients can be identified.

Survival analysis of resected non-functioning pancreatic neuroendocrine tumors, does size matter?

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Background: Pancreatic Neuroendocrine Tumor (pNET) is a rare disease and surgery is the only curative treatment. MEN1 patients generally will undergo resection if pNET size exceeds > 2 cm. In non-functional pNET (NF-pNET), most of neoplasms ≤ 2 cm are likely benign of intermediate-risk. In NF-pNET patients' outcome of resection for small compared to larger pNET is unknown. The aim of this study was to compare the outcome of surgical resection for small (≤2 cm) and large (>2 cm) NF-pNET. Methods: All patients operated between 1992 and 2012 for pNET were selected from the Academic Medical Centre of Amsterdam and the Erasmus Medical Centre of Rotterdam, both from the Netherlands. Patients were categorized in two groups based on tumor size, i.e. small ≤2 cm or large > 2cm and clinicopathologic characteristics were analysed according to tumor size. Tumor was classified based on WHO classification 2010 in grade 1, 2 and 3. Functional pNET were excluded from this analysis. Results: 99 patients with resected NF-pNET were included, 33 patients with a small tumor and 66 patients with a large tumor. Almost all the patients with a small tumor had a grade 1 tumor (n=30; 91%), the other 9% had a grade 2 tumor. Of the patients with a small tumor, 4 patients had a tumor with perineural invasion and 4 patients with vascular invasion (both 12%). In patients with a large tumor, 39% had a grade 1 (n=26), 50% grade 2(n=33) and 11% grade 3 tumor (n=7) and 14% of patients had a tumor with perineural invasion (n=9) and 33% with vascular invasion (n=22). The incidence of lymph node metastases in the resected specimen was significantly lower in the patients with a small tumor (n = 2; 6%) compared to patients with a large tumor (n = 26; 39%). In the patients with a tumor size ≤1cm (n=9), all patients had a grade 1 tumor without perineural or vascular invasion and without positive lymph nodes in the resected specimen. The median follow up was 43 months (IQR 22-73). In the patients with a small tumor, 1 patient (3%) had recurrent disease and died due to the tumor. In patients with a large tumor, 41% of the patients (n=27) had recurrent disease and 9 patients died due to their tumor. Overall survival 5 and 10 years after resection was 83% and 68% respectively, while tumor related survival 5 and 10 years after resection was 88% and 83% respectively. In a univariable cox regression, tumor grade 3 and perineural invasion were significant risk factors for tumor related death.
Conclusion: in resected NF-pNET, tumors size ≤2cm was associated with better tumor grade and lower risk of metastasis. Besides tumor size and tumor grade, perineural invasion also was predictive of survival.

Follow-up of patients with T1 colorectal carcinoma is inadequate

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Little is known about the long-term outcome of patients with T1 colorectal carcinomas (CRC) in Western countries. We performed an analysis in a cohort of patients with T1 CRC with regard to recurrence, staging and follow-up. In total, 332 patients with T1 CRC from 2 institutions were identified in the database of the Dutch Cancer Registration. Data on recurrence, polyp characteristics, treatment, appropriate staging and follow-up were collected from hospital records, endoscopy- and pathology reports. A total of 118 (35.5%) patients were excluded (9 co-presence of IBD, 12 hereditary CRC, 12 synchronous more advanced CRC, 16 incomplete hospital record, 9 non-CRC related deaths <1 year, 3 carcinoid tumors and 57 misclassifications (≥ T2 or high-grade dysplasia)). Disease recurrence was defined as the detection of metastasis or local recurrence during follow-up. Patients were subdivided into group A: endoscopic resection (n=69), group B: endoscopic resection with additional surgery (n=61) and group C: primary surgery (n=84). Adequate follow-up was defined as at least yearly imaging of liver and lung. A total of 214 patients were eligible for analysis. Median follow-up was 45.2 months (group A: 36 months; group B: 51 months; group C: 48 months). At baseline, 9.4% of patients had positive lymph nodes in groups B and C. Overall recurrence rate was 7.5% (n=16). Local recurrences were found in 3 patients and distant metastases in 13 patients (5 liver, 4 lung, 2 peritoneum, 1 brain, 1 liver and bone). Two patients were diagnosed with a metachronous CRC during follow-up. The recurrence rate and median time to recurrence in groups A, B and C were: 7.2% and 16.2 months, 4.9% and 24.0 months and 8.3% and 28.1 months, respectively. Pedunculated compared to non-pedunculated polyps (42%) were associated with a lower risk of recurrence (3% vs. 11%; p=0.07). Adequate staging at base was performed in 31% of patients in group A, 65% in group B and 66% in group C. Adequate follow-up was performed in 21% of patients in group A, 49% in group B and 54% in group C. Nonetheless, all patients with recurrence had undergone adequate follow-up, and 6/16 (38%) underwent additional therapy with curative intent.

Conclusion: T1 CRCs were associated with local and distant metastasis in 7.5% of cases. However, adequate follow-up was performed in only 42% of patients. Based on these findings, it is recommended to perform adequate staging procedures prior to treatment selection in patients with T1 CRC, while follow-up should be similar as performed for more advanced stages of CRC.

Percutaneous hepatic perfusion with melphalan in treating unresectable liver metastases of colorectal cancer and uveal melanoma: a phase I/II trial

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Irresectabel liver metastases can only be treated with systemic therapy, which aims to limit the disease, extend survival or turn the metastases into resectable ones. Some patients however suffer from systemic therapy and its side effects or the disease is progressive under therapy. For these patients, isolated liver perfusion may be an alternative for it has the advantage of controlling liver disease and decreasing treatment related symptoms and complications, in case of no extrahepatic disease. In the past this was performed during laparotomy, with satisfying results but an increased morbidity and mortality related to the open procedure. That lead to the development of a new procedure in which hepatic infusion with simultaneous chemofiltration can be performed percutaneously. Besides decreased morbidity and mortality, this procedure can be performed several times, expectedly leading to a higher percentage of patients that might qualify for radical resection after perfusion. A two-centre prospective phase II trial is started investigating the effects of percutaneous hepatic perfusion (PHP) with melphalan, aiming to include 34 patients with irresectabel liver metastases of colorectal carcinoma and 20 patients with uveal melanoma. The primary endpoints are the response rate expressed as the RECIST 1.1 criteria after two procedures and the percentage of patients whose metastases turned into resectable. Secondary endpoints are safety, overall survival, progression free survival and hepatic progression free survival, duration of stable disease and quality of life, according to EORTC questionnaires. Nine procedures have been performed in seven patients up to now. All procedures were uncomplicated. Post procedural recovery was speedy with a mean length of hospital stay of 2.6 days. On CT scans 5 weeks after the first treatment all target lesions decreased in size and were more hypodense. No new lesions were found in the liver. According to the analyses of the pharmacokinetic sampling, the filter removes up to 93% of the melphalan. The small systemic leakage of melphalan lead to decrease of white blood count and thrombocytes after the first procedure. One severe adverse event, febrile neutropenia, was reported. Anticipating to this, hematopoietic growth factors are administered after the treatment. Up to now, percutaneous hepatic perfusion appears to be an effective and safe procedure in selected patients with irresectable liver metastases of colorectal cancer or uveal melanoma.

An expert panel-based study on recognition of gastroesophageal reflux in difficult esophageal impedance tracings

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Introduction: Esophageal pH-impedance (pH-MII) theoretically allows detection of all gastro- esophageal reflux (GER). However, inter- and intraobserver agreement and agreement between observers and automated analysis is poor. This might be due to disagreement on recognition or interpretation of difficult pH-MII patterns. There is a need to more accurately define which patterns should be classified as GER to allow better manual and automatic assessment Objective To identify MII signal characteristics predictive of GER in a set of difficult MII tracings, using the majority opinion of an international panel of experts* as gold standard. Methods: Twenty-one experts from 10 countries marked presence (yes/no) of GER for 88 difficult impedance patterns in a pre-assessment. A consensus meeting was held, where 14 of these experts voted anonymously on patterns that did not reach majority consensus (> 70% outcome agreement). Final decision was based on threshold consensus (>50%). Agreement was calculated using weighed Cohen's Kappa. Consensus data were used to formulate 8 criteria for the judgment of difficult MII patterns: antegrade/retrograde pattern, no. of MII channels involved, duration and slope of MII drop, $\triangle$MII and $\triangle$pH from baseline, duration pH drop and nadir MII. Multiple logistic regression analysis was performed to describe an algorithm with optimal sensitivity and specificity with these criteria. Results: Of 88 patterns, 9 were uniform scored as gas only and 1 as a swallow pattern and were discarded from further analysis. Thirty-five liquid containing patterns reached majority consensus prior to the meeting, with a moderate inter observer agreement (κ = 0,332). During the consensus meeting, 14 present voting experts reached threshold consensus in 18 and majority consensus in 26 patterns. Mean agreement between participant scores and final consensus was moderate (κ = 0,466).All but 2 criteria differed significantly (P<0,05) between GER present and GER absent patterns. Combining these did not result in a statistical significant model to describe difficult GER MII patterns overall. Recognizing a pattern as retrograde or antegrade turned out to be best indicator of the presence of GER in such patterns, with 98% sensitivity and 81% specificity. Conclusion: Agreement between experts scoring difficult MII signals for presence or absence of GER is poor. Based on expert consensus, recognition of a retrograde propagation pattern is the best predictor of GER op pH-MII.

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Rowing and the induction of gastro-esophageal reflux

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Recently, we came across three consecutive rowers of a Dutch rowing society that developed esophageal adenocarcinoma (EAC) within one year. This resulted in the hypothesis that rowing induces gastro-esophageal reflux and thereby increases the risk of EAC development. In this study, we evaluated the association between rowing and gastro-esophageal reflux. For this, we first performed a literature review to investigate the occurrence of gastro-esophageal reflux related to type and intensity of sport (part I). In addition, questionnaires were sent to all rowers (n=380) of the particular rowing society to estimate the occurrence of reflux symptoms during rowing (part II).The literature search revealed six studies reporting the occurrence of gastro-esophageal reflux during exercise based on pH monitoring and questionnaires in a total of 429 athletes (part I). None of these studies focused on rowers. All investigations demonstrated reflux symptoms induced by exercise. Moreover, frequency and duration of reflux occurrence was dependent on the type of sport and its intensity. pH-monitoring showed a higher number of reflux episodes per hour during weightlifting when compared to running and cycling. Of the 196 responders (response rate 52%) in the questionnaire study of part II, 100 rowers (51%) experienced reflux symptoms, of which 52% less than once a month, 20% monthly, 22% weekly and 6% daily. However, more reflux symptoms were encountered during rowing when compared to daily life experience in this population. Marathon (67%) and tour (40%) rowers indicated more frequently reflux complaints than recreational (23%) and competition (19%) rowers ($p=0.02$), suggesting an association with intensity and duration.

Conclusions: Rowers experience more gastro-esophageal reflux symptoms during rowing than in daily life, and the frequency is related to intensity and duration of performing rowing. This is supported by previous studies demonstrating exercise-induced reflux associated to the type of sport and its intensity. Considering the relatively low frequency of reflux symptoms in the present rowing cohort when compared to the more general prevalence, a direct association between rowing-induced gastro-esophageal reflux and EAC development seems unlikely.

Pressure-flow characteristics of normal and disordered esophageal motor patterns: A pediatric study

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The Chicago Classification (CC) allows disordered esophageal motor dysfunction to be characterized into four main categories based on esophageal pressure topography (EPT) metrics. As an adjunct to EPT, pressure flow analysis relates impedance-detected bolus movement to pressure-detected bolus propulsion. The aim of this study was to perform pressure-flow analysis in a cohort of CC pediatric patients. We hypothesized that patients within the different CC categories would exhibit a different pressure-flow signature. Combined high-resolution impedance-and solid state pressure recordings were performed in 76 pediatric patients referred for diagnostic manometric investigation (32M; 9.1 ± 0.7 years) and 25 healthy adult controls (7M; 36.1 ± 2.2 years) using the Solar GI acquisition system (MMS The Netherlands). Standardized sa and viscous boluses were tested. EPT metrics were calculated and a CC determined for each patient using MMS analysis software (version 8.23). Pressure-flow analysis of swallows was performed using purpose designed MATLAB-based software (AIMplot, T. Omari) which calculated the pressure-flow index (PFI), a composite measure of bolus pressurization relative to flow and the impedance ratio (IR) a measure of the extent of bolus clearance failure. Based on EPT metrics, patients were mostly classified as Normal (38, 50%) or with a Category 4 disorder, usually weak peristalsis (28, 31.5%). Three (3.9%) had a Category 3 disorder, five (6.6%) had a Category 2 disorder (EGJ outflow obstruction) and two (2.6%) a Category 1 disorder (Achalasia Type II). Pressure-flow analysis of healthy control studies defined the reference ranges (90th Percentile) for PFI and IR as ≤ 142 and ≤ 0.49 respectively. Pediatric patients who had pressure-flow characteristics within these limits were mostly classified with Normal esophageal motility according to the CC (62%). The majority of patients with pressure-flow characteristics outside these limits also had an abnormal CC (61%). Patients with a high PFI and a disordered motor pattern all had EJG outflow obstruction. Patients with high IR and a disordered motor pattern were either achalasia, weak peristalsis or absent peristalsis.

In conclusion, disordered esophageal motor patterns were associated with an altered pressure-flow signature. By defining the degree of over-pressurization and/or extent of clearance failure, pressure-flow analysis may be a useful adjunct to EPT-based classification of primary esophageal motor disorders. These additional insights have clinical relevance by potentially defining the optimal treatment strategy for individual dysphagia patients.

Clinical and endoscopic characteristics can help distinguish pseudoachalasia from achalasia

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Pseudoachalasia is a condition in which clinical and manometric signs of achalasia are mimicked by another abnormality, most often a malignancy. An underlying malignancy should be recognized early to prevent delay in appropriate treatment. However, clinical identification of pseudoachalasia can be challenging. The aim of our study was to identify characteristics that suggest pseudoachalasia caused by malignancy. Patients diagnosed with achalasia by manometry were retrospectively included between 2000 - March 2014. Pseudoachalasia was diagnosed in patients with clinical and manometric signs of achalasia that were found to have an underlying malignancy. Clinical (Eckardt score), manometric, endoscopic and radiological findings were reviewed and compared between pseudoachalasia versus achalasia. In total 205 patients with achalasia were included (116 male, median age 52 (39-64) (median (IQR)). Pseudoachalasia was diagnosed in 10 patients (4.9%, 8 male) and caused by oesophageal adenocarcinoma (n=3), oesophageal squamous cell carcinoma (n=3), adenocarcinoma of the cardia (n=3) or pancreatic adenocarcinoma (n=1). The underlying malignancy was found at EUS (30%), endoscopy with biopsies (20%) or during a treatment session (30%; 2x Heller myotomy, 1x pneumodilation). In 20% of the patients a CT-scan after achalasia treatment eventually showed the malignancy. Patients with pseudoachalasia were older at time of diagnosis (68 (50-72) vs 51 (38-63), $p<.05$), had a shorter clinical history (6 (5-12) months vs 24 (11-68) months, $p<.01$) and lost more weight (12 (10-20) kg vs 6 (0-10) kg, $p<.01$). The Eckardt score was higher in the group with pseudoachalasia (9 (8-10) vs 7 (6-9), $p<.05$). When the score was corrected for weight loss no difference was seen (6 (6-7) vs 5 (5-7), $p>.05$). Manometries in both groups showed aperistalsis and dysrelaxation of the LOS, with no difference in LOS pressure (33 (19-35) mmHg vs 23 (18-32) mmHg, $p>.05$). In 80% of patients with pseudoachalasia a barium oesophagogram was performed and in 75% it was suggestive of achalasia showing stasis and/or luminal dilation compared to 91% in achalasia. All patients with pseudoachalasia underwent 1 or more endoscopies and in 80% the LOS was difficult or even impossible to pass, compared to 22% in the achalasia group.

Conclusion: Advanced age, short clinical history, considerable weight loss and difficulty in passing the LOS during endoscopy are characteristics that should arouse a higher suspicion of pseudoachalasia and warrant additional investigations. It is not possible to distinguish pseudoachalasia from achalasia with the diagnostics used for achalasia such as manometry or barium oesophagogram.

IBS and over-reporting of abdominal pain in retrospective questionnaires: advantages of Experience Sampling Method as new digital tool in symptom measurement

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Abdominal pain is a prominent symptom in Irritable Bowel Syndrome (IBS), for which standardized and well validated assessment methods are lacking and the available methods, i.e. retrospective questionnaires, display limitations, such as recall bias. A possible solution is the Experience Sampling Method (ESM). The aim of the study was to compare ESM as an assessment tool for GI symptoms and psychological complaints, with a focus on abdominal pain, in IBS patients with and without comorbid panic disorder to compare retrospective paper questionnaires. 27 IBS patients (Rome III) were recruited, of which 17 were diagnosed with comorbid panic disorder (DSM-IV-TR). For 7 days patients carried a digital device (ESM), which randomly sent off beep signals 10 times/day after which patients filled in symptom scores. Additionally participants fulfilled a paper end-of-day GI symptom diary during 14 days and scores at the end of the test period, such as the Gastrointestinal Symptom Rating Scale and Hospital Anxiety and Depression Scale. Somers'd test (for ordinal data) was used to assess correlations between ESM and paper questionnaire data. Mean and maximum ESM scores per day and mean end-of-day diary scores were calculated and analyzed using two-way ANOVA for repeated measurements. Good correlations (Somer's d (t) = 6.43 – 40.05, $p<0.001$) were observed between corresponding items on ESM and end-of-day diary, e.g. abdominal pain, nausea, bloating, and interestingly the weakest correlation was found for abdominal pain (t = 6.43). When comparing mean and maximum pain scores of ESM data with the pain scores of end-of-day diary, scores filled in at the end of the day were higher than the mean ESM scores, with a mean difference of 0.4 point (significant on 6 of 7 days, $p<0.05$) on a 5 point Likert scale. The pain scores of the end-of-day diary correlate best with the maximum pain scores on ESM. Furthermore, ESM items correlated well with 31 corresponding items on the different GI and psychological symptom questionnaires (t = 4.63 – 26.06, $p<0.001$). Overall, the results for the group with and without panic disorder were comparable.

Conclusions: IBS symptoms assessed 'real time' by ESM correlate symptoms assessed by paper retrospective questionnaires, in IBS patients with and without comorbid panic disorder. However the weakest correlation was found for abdominal pain and our data show that patients report the most intense pain of the day in an end-of-day diary, rather than average pain over the day. This indicates over-reporting of pain by IBS patients in retrospective questionnaires, and demonstrates an advantage of ESM as a new digital symptom-assessment tool.

Are faecal chromogranin A levels increased in irritable bowel syndrome?

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Chromogranin A (CgA), secreted by intestinal (neuro)endocrine and immune cells, is associated with the neuroendocrine function of the gut and may play a role in the pathophysiology and clinical expression of irritable bowel syndrome (IBS). Increased faecal CgA levels have been reported in IBS patients, when compared to healthy controls (HC). However, the sample size was relatively small and questions with respect to subtype differences remain to be answered. The aim of the present study was to assess faecal CgA levels in a large group of well characterised IBS patients and HC. We hypothesized that CgA is elevated in IBS patients when compared to HC and differs between IBS subtypes, with higher levels in diarrhoea predominant IBS. This study is part of a large prospective observational cohort on phenotypical and genotypical characterisation of IBS. IBS patients (Rome III criteria) were enrolled via the GI-outpatient clinic and HC were included via local advertisements. Faecal samples were available from 271 IBS patients, i.e. 92 diarrhoea predominant (IBS-D), 49 constipation predominant (IBS-C), 112 with mixed stool patterns (IBS-M) and 16 with undefined subtype (IBS-U), and 165 HC for analysis of CgA, commercial by radioimmunoassay. Faecal CgA levels were compared by Kruskall-Wallis and Mann-Whtiney U test for multiple and 2-group comparisons versus HC, respectively. Linear regression analysis was used to investigate possible confounding effects of disease-related factors on faecal chromogranin levels. Median [25;75 percentiles] faecal CgA in IBS patients was 15.4 [8.0;45.7] compared to 9.5 [6.3;27.9] in HCs ($p<.001$). In IBS-D and IBS-M patients higher levels of faecal CgA were found when compared to HC (19.7 [8.8;50.7], $p<.001$ and 17.0 [7.5;45.6], $p=.005$, respectively). No significant differences in faecal CgA were found between IBS-D, IBS-C and IBS-M (19.7 (8.8;50.7), 13.5 (7.5;323) and 17.0 (7.5;45.6), respectively, $p=.224$). BMI and use of motility decreasing medication, i.e. opioids, spasmolytics and anti-diarrhoeal drugs, had confounding effects on faecal CgA in IBS (β: 0.04, 95% CI: 0.01; 0.06, $p = .004$ and β: 0.44, 95% CI: 0.07; 0.81, $p = .019$, respectively). However, the association between the presence of IBS and increased CgA remained statistically significant after adjustment for these factors (β: 0.29, 95% CI: 0.05; 0.52, $p = .018$).

Conclusions: Faecal CgA levels are significantly increased in the total IBS group and both in the IBS-D and IBS-M when compared to healthy controls. These findings support the role of subtle changes in function of enteroendocrine cells in IBS.

Evaluation of the DHD-FFQ, a tool to assess diet quality, in patients with bowel related diseases

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Background and aim: To assess the quality of a diet, often extensive food frequency questionnaires are used. To acquire an indication of the diet quality, a short questionnaire can also suffice. In 2013, a short food frequency questionnaire was developed, the DHD-FFQ (Dutch Healthy Diet – Food Frequency Questionnaire). With this tool 8 components are assessed for their agreement with the guidelines: vegetables, fruit, fibre, fish, saturated fat, trans-fat, salt and alcohol. Per component a maximum score of 10 points is allotted, and nutritional advice targeted to the score is provided. The questionnaire can be filled out in 5 - 10 minutes. In this study the DHD-FFQ and advices were evaluated in patients with bowel related diseases. Participants and methods: Patients were recruited in the outpatient clinic of a Dutch hospital and received an e-mail with on link to the DHD-FFQ questionnaire. Based on the filled-out questionnaires, the DHD-index scores were calculated and patients received an individual dietary advice. After 4 to 6 weeks the questionnaire was sent for the second time. Additional questions were asked about the abdominal pain level and about the DHD-FFQ and advices. The DHD-indices and the pain scores were compared between base and second measurement with a paired samples T-test or the Wilcoxon Signed Rank Test in an intention to treat approach. Results: A total of 57 patients, aged between 19 and 64 y, filled out the first questionnaire. Forty-four also finished the second one. At base the ratio of men and women was almost 1:1 (27 vs 30 respectively) with a mean ± SD BMI (kg/m²) of 25.8 ± 4.0. All mean DHD-index scores, except for fibre, were higher for the second measurement than at baseline. The DHD-indices of the overall score, vegetables, fruit and salt significantly increased (P for difference= 0.022, 0.026, 0.006, 0.024 respectively). The pain scores decreased but not significantly (P=0.504). The DHD-FFQ and advices received good evaluations.
Discussion and conclusion: This study showed that the nutritional advice was effective and the pain scores slightly decreased. The DHD-FFQ and advices were well evaluated. Because of the lack of a control group, it is not clear whether the increased scores are totally due to the advices. Besides that, the possibility of socially desirable answers need to be taken into account. We conclude that the DHD-FFQ with advices is a suitable tool to apply in outpatients with bowel-related diseases to improve their diet towards healthy dietary guidelines.

First experience with the Low FODMAP diet in Dutch IBS patients

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Incomplete absorption of FODMAPs (nonabsorbed fermentable small carbohydrates abundantly present within the diet) may cause abdominal symptoms in patients with irritable bowel syndrome (IBS), presumably because they may cause an increase of luminal pressure within the ileum and colon due to water retention en increased gas production. Randomised trials show that 70-87% of patients with IBS experience a significant reduction of symptoms on a low-FODMAP diet. The diet consists of an exclusion phase of at least 6 weeks with a strict reduction in all FODMAPs (Lactose, fructose, polyols and oligosaccharides). If symptom reduction is achieved, it is followed by a second phase of stepwise reintroduction of FODMAPs. The diet was developed in Australia. In 2012 we have translated and adapted the diet for the Dutch population. Since the beginning of 2013 we treat IBS patients with the low FODMAP diet. The aim of the present study is to evaluate the effect of the low FODMAP diet in Dutch IBS-patients. All patients with IBS who started treatment with the low-FODMAP diet at our dietary clinic from November 2013 to May 2014 were included. Patients with coexisting non-functional bowel diseases were excluded. Patients were asked to fill out questionnaires at start, at 3-4 weeks and at 6-8 weeks. 45 Patients (10 males, mean age 41) were included. 9 patients stopped their diet preliminary: 4 because their current lifestyle was not compatible with strict dieting, 3 patients experienced too little symptom reduction and 2 patients had to stop because of familial circumstances. Another patient was lost-to-follow-up. Of the remaining 35 patients, 30 patients (86%) reported a subjective improvement of symptoms (intention to treat: 67%). The mean VAS-score of overall abdominal symptoms improved from 6.89 to 4.17 (N=35, $p<.0001$). 71% of the 35 patients experienced a dec of at least 2 points in VAS-score for overall abdominal symptoms (intention to treat: 56%).All 35 patients that completed the diet followed a strict low-FODMAP diet for more than 75% of the meals. 54% of these 35 patients experienced the low FODMAP diet as not difficult or a bit difficult to follow. Acquiring food ingredients in the shops was considered difficult by 17% of the patients.
Conclusion: 67% of IBS-patients experienced an improvement of abdominal symptoms with the low FODMAP diet and 54% an improvement of at least 2 points in their VAS-score. VAS scores for overall abdominal symptoms declined more than 2 points. Therefore, the low FODMAP diet may be effective in the Dutch population.

plattegrond Koningshof (zelfde als in boekje voorjaar, in te voegen door drukkerij).

Alfabetische lijst van standhouders tijdens het Najaarscongres, 9-10 oktober 2014 te Veldhoven

G = Genderzaal, D = Diezezaal, K = Kempenhal	***Standnummer***
AbbVie	K1
Aquilant Nederland Pyramed	K14
Boston Scientific Nederland BV	G5
Bristol-Myers Squibb BV	D1
Cablon Medical BV	D10
CCUVN	K16
Cobra Medical BV	K4
Colopolast BV	K10
Covidien Nederland	G2
Dr. Falk Pharma Benelux BV	G1
Endoss BV	D7
Endotechniek	D13
Erbe Nederland BV	D9
Ferring BV	K12
FMH Medical BV	G4
Fresenius Kabi Nederland BV	K9
GE Healthcare BV	G8
Gilead Sciences Nederland BV	G11
Hitachi Medical Systems BV	D5
Ipsen Farmaceutica BV	D11
Janssen	G10
Medical Measurements Systems BV	K7
Medify	D2
Mediq Tefa	D14
Medivators BV	D8
Merck BV	K3
Mermaid Medical	K11
Norgine BV	G9
NovyMed International BV	K8
Olympus Nederland BV	K2
Pentax Nederland	D4
Roche Nederland BV	G7
Scovas Medical BV	K5
Selinion Medical	D12
Springer Media	K15
Stöpler Instrumenten & Apparaten BV	D6
Takeda Nederland BV	G6
Tramedico BV	K13
Will Pharma Nederland	K6
Winclove BV	D3
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** Doorhalen wat niet van toepassing is.*

☐ Hierbij machtig ik de penningmeester van de Nederlandse Vereniging voor Hepatologie om de verschuldigde contriutie tot wederopzegging automatisch van mijn bank-/girorekening af te laten schrijven. Betaling geschiedt nadat u door de eerst-volgende ledenvergadering als lid bent aangenomen. Indien u geen machtiging tot incasso geeft ontvangt u automatisch een factuur (€ 2,50 administratiekosten)

IBAN:

BIC:

Datum en handtekening:

_____

Dit ondertekende formulier per post of fax (023 – 5513087) sturen naar:
Secretariaat NVH, Postbus 657, 2003 RR Haarlem

Aanvullende informatie: De contributie van de Nederlandse Vereniging voor Hepatologie bedraagt € 35,00 per jaar.
Na toetreding als lid ontvangt u een factuur (conform de regels is volledige contributie verschuldigd in het jaar van toetreding).

Notities: