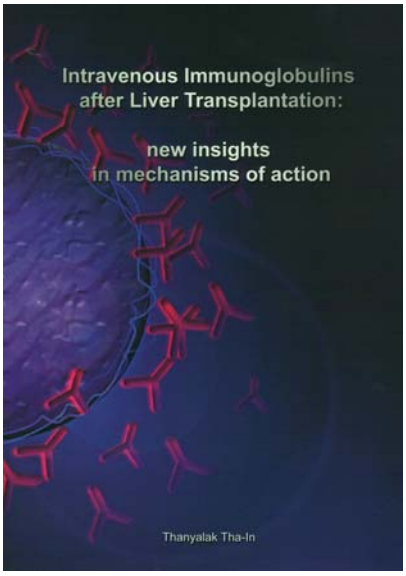

Samenvatting Proefschrift
Thanyalak Tha-In

'Intravenous Immunoglobulins in liver transplantation: rationale and mechanisms of action'

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A major challenge in transplantation immunology is to modulate the immune system of the recipient to tolerate the allograft without excessive use immunosuppressive drugs. Current immunosuppressive regimens are effective in prevention of rejection. However, the necessity of lifelong treatment and the occurrence of life-threatening side effects, such as infections, malignancies and renal failure, are significant shortcomings. Immune modulation by intravenous immunoglobulins (IVIg) can be the solution for this problem as we have observed that liver transplant recipients that are treated with anti-Hepatitis B surface antigen Intravenous Immunoglobulins (IVIg) had a reduced incidence of acute rejection. From clinical experience we have learnt that long term IVIg treatment has no side effects and may also modulate the immune system differently than currently used immunosuppressive agents. We found that both anti-viral and non-specific IVIg inhibit T-cell proliferation and suppress the capacity of dendritic cells (DC) to stimulate allogeneic T-cells in vitro. In collaboration with Prof. K. Wood (University of Oxford, UK) we have investigated in depth the immunomodulatory mechanisms of action of IVIg in vivo in experimental animal models. Based on the reported findings from our group and others, we consider IVIg as a powerful treatment for controlling the acute rejection process after liver transplantation. Therefore, IVIg should be considered as a serious candidate to be included in future immunosuppressive regimens. First, clinical trials are needed to determine optimal dosing strategy, and whether IVIg administration allows reduction or discontinuation of the maintenance immunosuppressive treatment in order to reduce the long term side effects after transplantation. ◄