

University of Groningen

Early effects of brain death on kidney injury and outcome after transplantation

Nijboer, Wijmtje Nikeline

IMPORTANT NOTE: You are advised to consult the publisher's version (publisher's PDF) if you wish to cite from it. Please check the document version below.

Document Version

Publisher's PDF, also known as Version of record

Publication date:
2010

[Link to publication in University of Groningen/UMCG research database](#)

Citation for published version (APA):

Nijboer, W. N. (2010). *Early effects of brain death on kidney injury and outcome after transplantation*. s.n.

Copyright

Other than for strictly personal use, it is not permitted to download or to forward/distribute the text or part of it without the consent of the author(s) and/or copyright holder(s), unless the work is under an open content license (like Creative Commons).

The publication may also be distributed here under the terms of Article 25fa of the Dutch Copyright Act, indicated by the "Taverne" license. More information can be found on the University of Groningen website: <https://www.rug.nl/library/open-access/self-archiving-pure/taverne-amendment>.

Take-down policy

If you believe that this document breaches copyright please contact us providing details, and we will remove access to the work immediately and investigate your claim.

Downloaded from the University of Groningen/UMCG research database (Pure): <http://www.rug.nl/research/portal>. For technical reasons the number of authors shown on this cover page is limited to 10 maximum.

Early effects of Brain death
on KIDNEY INJURY
AND OUTCOME AFTER
Transplantation

W . N . N I J B O E R

ISBN: 978-90-367-4439-3



university of
 groningen

RIJKSUNIVERSITEIT GRONINGEN

EARLY EFFECTS OF BRAIN DEATH
ON KIDNEY INJURY AND OUTCOME AFTER
TRANSPLANTATION

PROEFSCHRIFT

*ter verkrijging van het doctoraat in de
Medische Wetenschappen
aan de Rijksuniversiteit Groningen
op gezag van de
Rector Magnificus, dr. F. Zwarts,
in het openbaar te verdedigen op
woensdag 7 juli 2010
om 13:15 uur*

door

Wijmtje Nikeline Nijboer
*geboren op 13 maart 1978
te Oldehove*

Promotor: *Prof. dr. R. J. Ploeg*

Copromotor: *Dr. H. G. D. Leuvenink*

Beoordelingscommissie: *Prof. dr. H. P. H. Cremer*

Prof. dr. G. J. Navis

Prof. dr. rer. nat. B. A. Yard

*Ἀναγκαίως δ' ἔχει
βίον θερίζειν ὥστε κάρπιμον στάχυν,
καὶ τὸν μὲν εἶναι, τὸν δὲ μῆ.*

Euripides

Science is the poetry of reality.

Richard Dawkins

Paranimfen: *dr. L.G. Koustaal en drs. C. Moers*

- CONTENTS -

CHAPTER 1 - INTRODUCTION	9
Effect of brain death and donor treatment on organ inflammatory response and donor organ viability. Nijboer WN , Schuurs TA, Hoeven JAB van der, Ploeg RJ. <i>Published in Current Opinion in Organ Transplantation 2004 Jun;9(2):110-115</i>	
CHAPTER 2 - RATIONALE	23
CHAPTER 3	27
Effect of brain death on gene expression and tissue activation in human donor kidneys. Nijboer WN , Schuurs TA, Hoeven JAB van der, Fekken S, Wiersema-Buist J, Leuvenink HGD, Homan van der Heide JJ, Son WJ van, Ploeg RJ. <i>Published in Transplantation. 2004 Okt 15;78(7):978-86.</i>	
CHAPTER 4	45
Inflammatory angiopoietin response in deceased brain dead donors. L. Koudstaal, WN Nijboer , JG Burgerhof, JJ Homan vd Heide, VB Nieuwenhuijs, MW Nijsten, H van Goor, RJ Ploeg, HGD Leuvenink.	
CHAPTER 5	59
How important is the duration of the brain death period for the outcome in kidney transplantation? Nijboer WN , Moers C, Leuvenink HGD, Ploeg RJ. <i>Submitted</i>	
CHAPTER 6	75
Early prediction of outcome after kidney transplantation using novel urinary biomarkers Nijboer WN , Varnav OC, Ottens PJ, Vaidya VS, Bonventre JV, Homan van der Heide JJ, Leuvenink HGD, Burgerhof JGM, Ploeg RJ. <i>Submitted</i>	
CHAPTER 7	93
Kidney Injury Molecule-1 as an early non-invasive indicator for donor brain death-induced injury prior to kidney transplantation. Nijboer WN , Schuurs TA, Damman J, Goor H van, Vaidya VS, Homan van der Heide JJ, Leuvenink HGD, Bonventre JV, Ploeg RJ . <i>Published in American Journal of Transplantation 2009 Aug;9(8):1752-9. Epub 2009 Jun 12.</i>	
CHAPTER 8	III
Donor pretreatment with erythropoietin (EPO) or carbamylated EPO reduces inflammatory responses and preserves renal function in a rat brain death model. Nijboer WN , Ottens PJ, Dijk A van, Goor H van, Ploeg RJ, Leuvenink HGD. <i>Published in Critical Care Medicine 2010 Jan 29.</i>	
CHAPTER 9 - SUMMARY & FUTURE PERSPECTIVES	129
CHAPTER 10 - SAMENVATTING & TOEKOMSTPERSPECTIEF	137
DANKWOORD	146

