Protocol Amendment # 005

Proposed by: *RPC Essen / Univ. Cologne* **Date:** *24-04-2005*

Title: *Kidneys of the older donor - viability assessment during machine perfusion*

Background and Aim

Machine perfusion of kidneys offers the opportunity to assess parameters potentially predicting the graft function following transplantation. Different relevant parameters are described in the literature, but are not examined under controlled conditions. Especially in the older donor with underlying vascular diseases and hypertonus the analysis of perfusion parameters like perfusion pressure and flow in correlation to perfusate samples could lead to a risk assessment for the transplantation.

Method

From each MP procedure in donors older than 55 years a perfusate sample of 10 ml will be taken at the start of perfusion, after 1 hour and at the end of MP. It will be stored on ice by the perfusionist and taken to the RPC where it will be stored at -80 °C. At the end of the study the samples will be analyzed at the University of Cologne.

To be analyzed:
LDH
Lactate
Ca
Na
K
alpha-GST

Statistics

The measured parameters will be correlated with perfusion data on the machine, and donor and recipient data, post - transplant function, patient and graft survival in a multivariate analysis. Also the outcome of the contralateral, cold stored kidney will be analysed in consideration of the machine perfusion data.

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