Prüfe J - Hannover

Abstract 1

Title: Cognitive development in children with renal failure – first impressions of the IFB TX-project “Opportunities for life in paediatric organ transplant recipients”

Childhood chronic organ failure and organ replacement therapies are regarded to have a great impact on the cognitive and psychosocial development of the young people concerned.

The integrated research and treatment centre transplantation (IFB-Tx) aims to integrate all basic and clinical departments involved in transplantation at Hannover Medical School into an effective unit to develop new diagnostic and therapeutic strategies to rectify the current limitations of transplant medicine.

In our research-project “Opportunities for life in paediatric organ transplant recipients” we assess neurocognitive and psychological functioning as well as quality of life in children with failure of kidney, liver or lung throughout their trajectory. Our aim is to identify potential developmental risks and predictors for future outcome and to ultimately improve our strategies of care.

I will present clinical results on neurocognitive development and point out the developmental risks associated with chronic kidney disease (CKD). While overall cognitive outcome in children with CKD is within the average range, the so called executive functions appear to be particularly vulnerable. I will thus take a closer look at short-term & working memory, attention, and processing speed. My aim is to show 1) in which ways these functions might be impaired, 2) how such impairment may translate into difficulties in everyday life, and 3) what we can do to help children cope with these issues.