

Relevance of deceased donor proteinuria for kidney transplantation: a comprehensive national cohort study

Christian Kuhn, Alex Born, Andrea Karolin, Brian Lang, Isabelle Binet, Délaviz Golshayan, Fadi Haidar, Thomas Müller, Stefan Schaub, Franz Immer, Michael Koller, Daniel Sidler & Swiss Transplant Cohort Study

Proteinuria is frequent in patients with nephropathies and associated with progressive kidney disease and risk for end stage kidney disease. However, the relevance of deceased donor proteinuria on transplant outcome remains uncertain. In this nationwide cohort study, we evaluated the prevalence of proteinuria in deceased donor candidates and measured the impact on outcome after kidney transplantation. Data from the Swiss Organ Allocation System and the Swiss Transplant Cohort Study were analyzed, comprising 1725 donors and 1516 recipients transplanted between 2008 and 2019. Proteinuria influenced allocation decisions in 4.5% of non-immunological organ declines and was the leading cause for decline in 0.2% of cases. We correlated urine findings with donor characteristics and quantified the impact of proteinuria on outcome and allograft function at 12 months. 74.1%, 51.4% and 35.3% of donor candidates had a baseline proteinuria above 15, 30 and 50 mg protein/mmol urine creatinine, respectively. Proteinuria above 30 mg/mmol was associated with female donor sex, mechanical resuscitation, acute kidney injury and time delay between ICU entry and urine sampling. Donor proteinuria was not associated with patient or allograft survival, nor allograft function at 12 months. In summary, we report a high prevalence of proteinuria in donor candidates, without evidence of a deleterious impact of proteinuria on graft function and/or survival. Low-level proteinuria should not be considered a limiting contraindication for kidney allocation in deceased donor transplant. This article is protected by copyright. All rights reserved.

type	journal paper/review (English)
date of publishing	06-02-2022
journal title	Clin Transplant
ISSN electronic	1399-0012
pages	e14574