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Pediatric KT in children up to 15 kg: A single-center experience

Andrea Mariana Exeni [1], German Fernando Falke [2], Silvina Montal [3], María Paula Rigali [1], Débora Raquel Cisnero [1], Leandro Berberian [2], Sofia Marchionatti [2], Soledad Heredia [2], Hernán Eduardo Allegrotti [4], Silvio Fabio Torres [5], Ricardo Daniel Russo [2], José Rozanec [6]

Affiliations

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Abstract

Background: KT is the preferred treatment for ESRD in pediatrics. However, it may be challenging in those weighing ≤15 kg with potential complications that impact on morbidity and graft loss.

Methods: This retrospective review reports our experience in KT in children, weighing ≤15 kg, and the strategies to reduce morbidity and mortality.

Results: All patients were on RRT prior to KT. Patients reached ESRD mainly due to urologic malformations (54.54%). LD was performed in 82% of patients. The recipient's median age was 2.83 years, and median weight 12.280 kg. Male sex was predominant (73%). All patients required transfusions of PRBCs. There was a high requirement for ventilated support in patients post-KT with no relation to weight, amount of resuscitation used intra-operatively or ml/kg of PRBCs. One patient presented with stenosis of the native renal artery. No patients presented DGF, graft thrombosis, or surgical complications. No association was found between cold ischemia and eGFR at 1 year ($p = .12$). In univariate analysis, eGFR at 1 year is related to AR. eGFR at 3 years is related to the number of UTI. Median follow-up was 1363 days. Patient and graft survival were 100%.

Conclusions: KT in children ≤15 kg can be challenging and requires a meticulous perioperative management and surgical expertise. Patient and graft survival are excellent with low rate of complications.

Keywords: AR; graft survival; pediatric KT; surgical complications.

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