Outcome of patients after second, third and fourth kidney transplantation

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Introduction & Objective: A debate exists whether patients after graft loss should be considered for a second and subsequent graft. Hence, a retrospective analysis was undertaken to assess outcomes of patients who underwent second, third and fourth transplantation.

Materials & Methods: A total number of 63 kidney transplantations were included in the present study. 46 patients out of them underwent second kidney transplantation, 13 were third graft recipients and 3 were fourth graft recipients. Data and variables on patient and graft survival were retrieved and analyzed using Kaplan-Meier statistics. Postoperative complications were assessed and graded based on Clavien-Dindo classification.

Results: Patient survival was 97% after one year and 91.9% after 5 years (second graft). Graft survival was 100% after 5 years (second graft). Patient survival of third graft recipients was 92.3% after 1 year and 76.9% after 5 years. One year censored graft survival was 100% and a 5-year graft survival was 74.1% (third graft), respectively. In the cases of fourth transplantation, graft survivals of 33.3% at 1 and 2 years were noted among 3 patients. All fourth graft recipients have survived during our observation time. The overall rate of postoperative surgical complications among second graft recipients was 12.8%, 46.2% among third graft recipients and 66.7% among patients after fourth transplantation.

Conclusions: Results on second and third kidney transplantation showed satisfactory patient and graft survival with acceptable outcome for patients who underwent second and third transplantation. A fourth kidney transplantation offers also a survival advantage, however it is inferior to second and third transplantation.

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