Short- and long-term outcomes of kidney transplants with kidneys lavaged by retrograde perfusion technique

**Objective:** The objective of the study is to evaluate the clinical safety and efficacy of the retrograde perfusion technique in kidney transplantation.

**Methods:** Between January 2001 and June 2011, 24 cases of kidney transplantation with kidneys perfused using the retrograde perfusion technique due to renal artery variations or injury were selected as the observation group (retrograde perfusion group, RP group). 22 cases of kidney transplantation via conventional perfusion were chosen as the control group (antegrade perfusion group, AP group). There were no statistically significant differences in donor data between the two groups. Cold ischemia time, warm ischemia time, renal perfusion time, amount of perfusion fluid, acute renal tubular necrosis, wound infection, urinary fistula, graft kidney function, and the 1-year, 3-year, and 5-year survival rates for the grafted kidney in both groups were observed and recorded.

**Results:** The kidney perfusion time was shorter in the RP group than that in the AP group (3.14±1.00 vs. 5.02±1.15 min, P = 0.030). There were 10 cases of acute renal tubule necrosis in the RP group and 5 in the AP group. The follow-up time was 3.5-8.5 years (mean 6.25 years). The 1-, 3-, and 5-year survival rates for the grafted kidney were 95.8%, 75.5%, and 65.5% in the RP group and 97.1%, 82.5%, and 68.4% in the AP group, respectively (P>0.05).

**Conclusions:** This study indicates that retrograde perfusion is safe and practicable for cadaveric kidney harvesting and can be regarded as a better alternative or remedial measure for a poorly perfused kidney due to vascular deformity or injury.

**Biography**
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