RENAL TRANSPLANTATION.
CLINICAL - 2

EFFECT OF RENAL TRANSPLANTATION ON RENALASE LEVELS IN DONORS AND RECIPIENTS

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Introduction and Aims: Renalase is a recently discovered renal enzyme participating in the degradation of catecholamines and may have a role in blood pressure regulation. Previous studies indicated that renalase levels are affected from renal functions. Impact of donor nephrectomy and renal transplantation in renal transplant donors and recipients on renalase levels is not known. We evaluated the pre-transplant and post-transplant renalase levels in renal transplant recipients and donors.

Methods: This prospective study was conducted on 20 living renal transplant recipient-donor pairs. Renalase levels were measured the day before renal transplantation and one month later both in recipients and donors via ELISA method. The pre-transplant and post-transplant renalase levels were compared separately in recipients and donors. The relation between serum renalase levels and serum creatinine was also examined in both groups.

Results: Mean age of recipients (15 male, 5 female) was 39.2±13.3 years and mean age of donors (11 male, 9 female) was 50.6±12.7 years. Mean renalase level increased from 170.2±135.0 ng/mL to 272.4±170.9 ng/mL in recipients after transplantation (p=0.01) and decreased to 157.4±118.5 ng/mL from 217.5±153.0 ng/mL in donors (p=0.02). These changes in renalase levels were independent from the changes in serum creatinine in both groups.

Conclusions: This study indicated that renalase levels significantly increase in renal transplant recipients and decreases in donors after transplantation. Clinical significance of these changes should be determined in further studies.