Title: Clinical outcomes after renal transplantation in pre diabetic patients: systematic review

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Aim of the study was to conduct a systematic review to summarize the outcome of renal transplantation in adult patients with history of DM [DMRTx] in 1.DMRTx , 2. type 2 DMRTx 3.DM and type 2 DM in comparisons with Non-DMRTx, 4. Type2DMRTx vs dialysis and 5. Preemptive Kidney Transplant (prekTx) vs non prekTx

MEDLINE, EMBASE, Renal transplant registries were searched for observational / cohort/ case-control studies from 1980 to 2014.

We identified 22 studies reporting survival after RTx [in DM (1),DM vs Non-DM (10), Type 2DM (2), Type2DM vs Non-DM (6), Type2DMRTx vs Dialysis (1), PreKTx vs Non PreKTx (2)] 16, 7, 12 and 3single center studies showed 1,3, 5 and 10 year patient survival respectively.

Seven studies in DM group have reported 5 yr graft and patient survival where one study showed graft survival was significantly better in Non-DM group compared to DM group. Patient survival did not differ. In five type2DM studies, one and three studies showed graft and patient survival in non-DM to be significantly (p<.05) better than type2DM group. 5 yr survival after RTx was significantly (p=.001) better in RTx patients compared to patients on dialysis. At 10 year, patient survival of non-DM was significantly better than DM or type 2 DM (p<.05).and survival of preemptive was similar to non-preemptive.

There is an urgent need for multi-center studies with prediabetes, especially type2DM patients to look at long term survival after renal transplant.