Clinical outcomes after renal transplantation in pre-diabetic patients: Systematic review

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Background & Aim: Aim of the study was to conduct a systematic review to summarize the outcome of renal transplantation in adult patients with history of DM [DMR-Tx] in 1) DMR-Tx, 2) Type 2-DMR-Tx 3) DM and type 2 DM in comparisons with Non-DMR-Tx, 4) Type2 DMR-Tx vs. dialysis and 5) Pre-emptive Kidney Transplant (prek-Tx) vs. non prek-Tx.

Methods: MEDLINE, EMBASE, Renal transplant registries were searched for observational / cohort/ case-control studies from 1980 to 2014. Type2 DM compared to DM studies recruited fewer (<100) and older (>50 years) patients. We identified 22 studies reporting survival after RTx [in DM (1) DM vs. Non-DM (10), Type DM (2), Type2 DM vs. Non-DM (6), Type2 DMR-Tx vs. Dialysis (1), PreK-Tx vs. Non Prek-Tx (2)]. 16, 7, 12 and 3 single centre studies showed 1, 3, 5 and 10 year patient survival respectively.

Results: Seven studies in DM group have reported 5 yr graft and patient survival where one study showed graft survival was significantly (p<0.05) better in Non-DM group compared to DM group. Patient survival did not differ. Among five type 2 DM studies, one and three studies showed graft and patient survival in non-DM to be significantly (p<0.05) better than type 2 DM group. 5 yr survival after RTx was significantly (p=0.001) 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 and survival of pre emptive was similar to non-pre emptive (p<0.05).

Conclusion: There is an urgent need for multi-centre study with pre-diabetes, especially type 2 DM patients to look at long term survival after renal transplant.

Biography
Veena Joshi (MSc and PhD) has completed her education in India. She has over 25 years of experience in Epidemiology and Social Research at Ministry of Health in Singapore and various hospitals in India. She has published several papers in reputed journals and has been serving as Reviewer Board Member of repute.

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