SP058 THE EFFECT OF ALTERED DIETARY SALT INTAKE ON BLOOD PRESSURE IN KIDNEY TRANSPLANT PATIENTS: A SYSTEMATIC REVIEW AND META-ANALYSIS OF RANDOMISED CONTROLLED TRIALS

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INTRODUCTION: Hypertension is common in kidney transplant recipients and is associated with both shortened allograft survival and increased cardiovascular risk. Dietary salt reduction is widely recommended to lower blood pressure in the general population and in those with chronic kidney disease. Kidney transplant recipients may respond differently to dietary salt reduction as the transplanted kidney is denervated and they are prescribed calcineurin-based immunosuppression that predisposes to intra-renal vasoconstriction. There is currently limited evidence as to whether dietary salt reduction recommendations should be extended to this patient population.

METHODS: We carried out a systematic review and meta-analysis of randomised controlled trials (RCTs) investigating dietary salt reduction in kidney transplant recipients. Studies were identified through search strategies for CENTRAL, MEDLINE, and EMBASE. Two authors independently assessed studies for eligibility with the following inclusion criteria: participants aged 18 years and over; a difference in salt intake of at least 1 g/day over one week; no randomised concomitant interventions during the study.

RESULTS: The primary outcome was change in systolic and diastolic blood pressure. 377 reports were screened, from which 17 studies were selected for the systematic review. Two were RCTs (54 participants) that met the study inclusion criteria: one was a crossover trial and one was a parallel study. Dietary salt reduction was associated with a 13.3 mmHg reduction in systolic blood pressure (95% CI 7.6 – 19, I2 = 0%) and a 7.3 mmHg reduction in diastolic blood pressure (95% CI 3.5 – 11.2, I2 = 0%). A further RCT was identified but was not included in the final meta-analysis as it was printed in abstract form with incomplete data.

CONCLUSIONS: Few studies have investigated the role of dietary salt reduction in kidney transplant recipients but these results suggest that reducing dietary salt intake could be an important intervention for lowering blood pressure in this group. Further RCTs in kidney transplant patients should be undertaken to confirm the efficacy and safety of a low salt diet.