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## P316 -ASSOCIATION BETWEEN DIETARY COMPONENTS AND VASCULAR STIFFNESS: ASSESSMENTS FROM RENAL TRANSPLANT RECIPIENTS PARTICIPATING IN A CLINICAL TRIAL

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**Introduction:** Dietary factors are associated with mortality from cardiometabolic disorders. Renal transplant recipients are at high risk of cardiometabolic disease for myriad reasons, including increased vascular stiffness, which may be influenced by dietary factors. We investigated the association between dietary factors and vascular stiffness in renal transplant recipients participating in a clinical trial.

**Methods:** We included prevalent renal transplant recipients > 1 year following renal transplant participating in a clinical trial of vitamin K supplementation (ISRCTN22012044). Clinical, biochemical and socioeconomic data were collected at baseline. Participants were asked to keep a food diary for 28 days containing food type and quantity. We estimated dietary constituents including fruit and vegetables, red and white meat, fish, refined sugar, salt, starch and dairy products. Vascular stiffness was measured using carotid-femoral pulse wave velocity (PWV; SphygmoCor XCEL). Pearson's correlation coefficient was used to assess correlations; linear regression analysis was used to test for factors associated with vascular stiffness. Analyses were conducted using stats and rrr packages for R statistical software.

**Results:** Ninety participants were enrolled of whom 52.2% completed a food diary: mean age was 61.2 (SD 9.0) years, 63.8% were male, mean eGFR was 50.1 (SD 21.1) ml/min and 6.4% had primary renal disease relating to vascular disease, hypertension or diabetes. Most participants were taking a calcineurin inhibitor (CNI): 78.7% tacrolimus; 19.1% ciclosporin, 2.1% not taking CNI. There were 4.3% of participants following a steroid-free immunosuppression regimen. PWV was higher than average for age in 29.8%. Only 8.5% consumed an average of 5 portions of fruit or vegetables per day; these people were younger (50.6 vs 62.1 years,  $p=0.029$ ) with lower body mass index (23.2 vs. 27.4 kg/m<sup>2</sup>,  $p=0.021$ ) and consumed less processed food (2.8 vs 8.2 portions per month,  $p<0.001$ ) but more fish (17.3 vs 7.4 portions per month,  $p<0.001$ ) and starch (113.0 vs 68.0 portions per month,  $p=0.01$ ). On linear regression analysis, carotid-femoral PWV was associated with age (+0.67 m/s per 10-year increase,  $p=0.03$ ) and mean arterial pressure (+0.73 m/s per 10 mmHg increase,  $p<0.001$ ), but not with immunosuppression regimen or consumption of any of fruit and vegetables, red meat, fish, salted or processed foods, starch, refined sugar or dairy products.

**Conclusions:** We found no direct influence of dietary factors on vascular stiffness in this cohort of renal transplant patients with relatively little vascular disease and diabetes. Very few consumed the recommended quantity of fruit and vegetables per day. Those who did maintained healthier body habitus and other dietary habits. Dietary factors are still likely to be important for cardiometabolic health in renal transplant recipients.