to find a more efficient dialysis treatment to improve the clearance of uremic retention solutes in order to try to ameliorate CV outcomes in ESRD patients.

MO737 VASCULAR CALCIFICATION AND THE GUT MICROBIOME IN CHRONIC KIDNEY DISEASE PATIENTS ON PERITONEAL DIALYSIS

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BACKGROUND AND AIMS: Cardiovascular disease (CVD) is the leading cause of death among patients with chronic kidney disease (CKD). In addition to diabetes, hypertension, dyslipidaemia and inflammation, vascular calcification and its severity have long been recognized as a major factor in the development of CVD in patients with CKD. CKD favours gut dysbiosis, and this dysbiosis may contribute to the aggravation of CVD, inflammation, and vascular calcification in CKD. Therefore, our aim was to study the potential interconnection between vascular calcification, mortality risk, and the gut microbiome in CKD patients on peritoneal dialysis (PD).
METHOD: A group of 44 CKD patients on PD was evaluated concerning major inflammatory markers and key players of CKD-mineral bone disorder. Vascular calcification severity was assessed by the Adragao score, and all-cause mortality risk was assessed using the Charlson comorbidity index. Gut microbiome profile was obtained by sequencing the V3–V4 region of 16S rRNA.
RESULTS: The global mean of the Adragao score of our CKD-PD patients was 2.98 ± 2.74, including 26.1% with no vascular calcification (Adragao score = 0), 30.4% with moderate vascular calcification (Adragao score of 1 or 2), and 39.1% presenting severe vascular calcification (Adragao score higher than 2). When comparing CKD-PD patients with moderate or severe vascular calcification with CKD-PD patients with no vascular calcification, we found statistically significant differences regarding age (47.7 ± 11.5 versus 59.4 ± 8.8; $P < 0.01$), sex (% male 33.3% versus 78.1%; $P = 0.011$), total Kt/V (urea) (2.6 ± 0.6 versus 2.1 ± 0.4; $P = 0.04$) and history of diabetes mellitus (8.3% versus 48.8%; $P = 0.035$). No differences were found regarding the expression of inflammation markers between the two groups. When vascular calcification severity was correlated with all-cause mortality risk scored by the Charlson comorbidity index, we observed a positive significant correlation between these two factors (Spearman correlation, correlation coefficient = 0.538; $P < 0.001$).

When comparing PD patients with and without vascular calcification, no significant differences were found regarding gut microbiome profile. Nonetheless, relative changes of specific taxa were observed, namely regarding Coprobacter, Coprococcus 3, Lactobacillus and Eubacterium eligens group in the gut microbiome. Among these taxonomic differences, patients with different Charlson comorbidity index values also demonstrated changes in the Eubacterium eligens group in the gut microbiome. The Adragao score and the Charlson index were positively correlated.
CONCLUSION: There is an association between vascular calcification and mortality risk in CKD patients on PD. We have found small differences in some specific taxa when comparing the gut microbiomes of CKD-PD patients with and without vascular calcification. Future studies exploring the role of these bacterial groups in the increased risk of vascular calcification, mortality and CVD in CKD-PD patients are of extreme relevance to ensure the health and well-being of these patients.

MO738 SIMPLIFIED PORTABLE LUNG ULTRASOUND ASSESSMENT OF FLUID STATUS AMONG DIALYSIS PATIENTS

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BACKGROUND AND AIMS: Fluid assessment is challenging, and fluid overload poses a significant problem among dialysis patients [1], with pulmonary oedema being the most serious consequence. Detection of B lines on lung ultrasound (LUS) is a reliable method of estimating lung water with higher sensitivity compared with clinical examination [2]. A simplified 8-point LUS has also shown a good correlation with the standard 28-point LUS in assessing lung water [3]. Using a simplified 8-point LUS by a portable hand-held ultrasound can help increase the uptake of LUS fluid assessment in dialysis units.

Our study aims to determine the performance of simplified 8-point LUS using a portable hand-held LUS unit in assessing the fluid status of dialysis patients compared with bioimpedance alone or a combination of bioimpedance and clinical examination.
METHOD: Two independent nephrologists performed a simplified 8-point LUS unit using a portable hand-held US unit. Clinical assessment of fluid status and bioimpedance were used as comparators. Fluid overload was defined as a B-line count of > 5.

Our primary outcomes were the performance of simplified 8-point LUS compared with overhydration (OH) presented as absolute value and by percentage (OH%), with or without the combination of clinical examination of fluid status.
RESULTS: LUS was performed on 50 hemodialysis and 11 peritoneal dialysis patients. A total of 10% of patients were euvolemic, 46% had mild, 42% moderate and 2% severe fluid overload on clinical examination.

The OH and OH% of the area under the curve (AUC) for the receiver operating characteristic curve (ROC) curve were 0.697 and 0.713, respectively, for the performance of LUS compared with bioimpedance alone (Fig. 1). The same

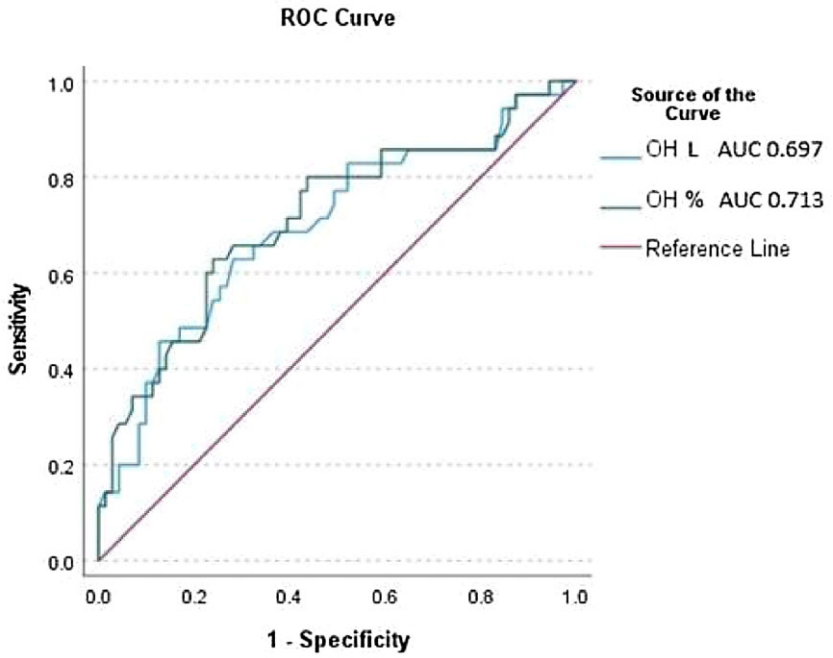

FIGURE 1: ROC curve comparing LUS versus bioimpedance.