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P289 -The association between salt intake scored by Scored Salt Questionnaire and markers of fluid overload in haemodialysis patients

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Introduction

Fluid overload is recognised as a major risk for early mortality in haemodialysis patients. Sodium plays a major role in determining thirst, and therefore fluid intake. Salt restriction towards the target of below 6g per day is understood to be the cornerstone of fluid management in haemodialysis patients. There are considerable challenges in the accurate measurement of usual sodium intake in individuals, including day-to-day variability in sodium intake.
The assessment of sodium intake in haemodialysis patients is difficult because of the inability to rely on the gold standard 24-hour urine collection as most haemodialysis patients are anuric. We were keen to investigate the effectiveness of a locally used Scored Salt Questionnaire (SSQ), which has been adapted to the UK diet.

Methods
An adapted SSQ was used to assess salt intake. Whilst, Bio-impedance analysis [ratio of extracellular water (ECW) and total body water (TBW)], N-terminal pro Brain Natriuretic Peptide (proBNP) level and Intradialytic Fluid Gains (IDFG) were used to assess the fluid status. The study was conducted in patients receiving haemodialysis in a satellite dialysis unit. Pearson's correlation was computed to assess the relationship between salt score and parameters such as IDFG and pro Brain Natriuretic Peptide (proBNP) levels.

Results
189 haemodialysis patients, (112 Men) with mean ± standard deviation age (64 ± 14.03) completed the salt assessments. The mean SSQ scores were 63.85 (±19.68). 86.6% patients, had salt scores >65, which represents a salt intake of >6 g/day. Patients with SSQ scores of >65 [mean ±(standard deviation) 79.15 ± 13.65] had statistically significantly higher ECW to TBW ratios [median (interquartile range) 0.40 (0.39-0.41); p=0.001]. Overall, no correlation was reported between these variables (p= 0.7001 and p=0.2469 respectively).

Conclusion
The results demonstrate that patients with an increased sodium intake as estimated by the SSQ questionnaire, presented with fluid overload evidenced by increased ECW to TBW ratio. However, we did not see any significant correlation between the salt score and fluid gains between dialysis and pro BNP. The findings of this study suggest that this questionnaire was effective in assessing the presence of fluid overload in haemodialysis patients. The observations from this study merit further evaluation and external validation.