

Oral Presentation- 06

CHANGES IN BIOCHEMICAL MARKERS OF OUTCOMES IN HAEMODIALYSIS PATIENTS FOLLOWING A CLINICAL PHARMACY INTERVENTION

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Introduction and Objectives

Common complications of End-Stage Renal Disease (ESRD) include cardiovascular disease, diabetes, anaemia and mineral and bone disease. Achieving an optimum level of biochemical markers of outcomes is crucial in managing ESRD. This study was conducted to assess the changes in selected biochemical parameters following a clinical pharmacy intervention (CPI) in this population.

Method

A randomized controlled trial was conducted at outpatient haemodialysis units in North Central Province, Sri Lanka. Serum phosphate, serum calcium, haemoglobin, lipid profile, eGFR and 'adequacy of dialysis' (AoD) (determined by urea reduction ratio (URR); calculated based on pre-post blood urea nitrogen measurements and Kt/V measurements) were measured in patients at baseline (BL) and after one year (PI). The Intervention Group (IG), n=143 patients received comprehensive pharmaceutical care by the clinical pharmacist on four consecutive occasions at recruitment, and 2, 6 and 10 months after recruitment. While the Control Group (CG), n=140, received standard care.

Results

At the baseline, there was no significant difference in the biochemical markers of outcomes between the two groups and AoD was within the acceptable range. However, there was a significant improvement in the mean serum phosphate levels (IG 4.04±1.19 vs CG 5.00±1.67, p<0.0001), mean serum calcium levels (IG 8.90±1.35 vs CG 7.11±2.07, p<0.0001), and mean haemoglobin levels (IG 10.5±1.25 vs CG 9.4±1.87, p<0.0001) in the IG compared to the CG at the end of one year. However, eGFR, lipid profiles did not change significantly (p>0.05). AoD was within the acceptable range in both groups at baseline and post intervention and did not change significantly (p>0.05)

Conclusions

Improvement in the selected biochemical markers of outcomes resulting from CPI suggests better patient management outcomes in the ESRD population.