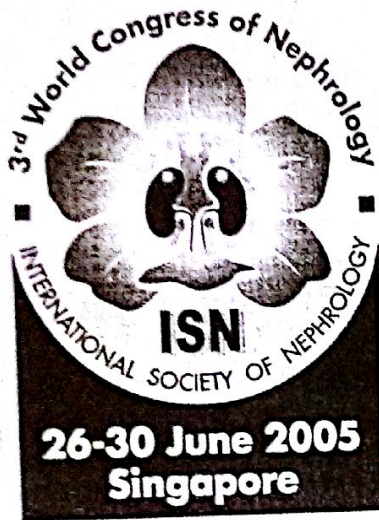


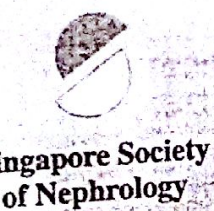
NEPHROLOGY



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Mean BUA values of HD CAPD and Control groups

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It was aimed to evaluate the bone measurements by quantitative heel ultrasound (QUS) in patients undergoing chronic haemodialysis (HD) and continuous ambulatory peritoneal dialysis (CAPD), and healthy controls. It was also aimed to investigate the relationship among weight, body mass index (BMI), smoking and parathyroid hormone (PTH) with QUS parameters. Present study included 25 patients on chronic HD (Group 1), 16 patients treated by CAPD (Group 2) and 32 controls (Group 3). QUS (Hologic, Sahara bone sonometer) measured broadband ultrasound attenuation (BUA: dB/MHz), quantitative ultrasound index (QUI: g/cm²), speed of sound (SOS; m/s). The WHO (1997) classification of BMI was used for weight classification. The smoking criterion was defined as smoker and non-smoker. Mean age of cases was 40.2±15.5, 36.0±9.9 and 36.6±12.4 years, in groups 1, 2 and 3 (p>0.05), and mean dialysis duration time was 31.8±12.6 and 42.8±12.8 months, in groups 1 and 2 (p=0.015). Depending on the QUS parameters, both osteoporosis and osteopenia were diagnosed in five (56%) of women and in 11 (69%) of men in HD vs in two (33%) of women and in four (40%) of men in CAPD, respectively (p=0.584). QUS measurements were not correlated with serum PTH and BMI in both HD and CAPD groups, respectively. In HD group, we found SOS to be lower (1526±27 vs. 1548±19 m/s, p=0.016) in smokers compared to non-smokers. There were negative correlations between smoking and QUS parameters (r= -0.34; p= 0.044). Our findings suggest that there is an unfavorable influence of HD and smoking on bone mineralization compared to CAPD.

Key words: Quantitative heel ultrasound; osteoporosis; continuous ambulatory peritoneal dialysis, haemodialysis; parathyroid hormone.