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Title: Pulmonary hypertension in end-stage renal disease and post renal transplantation patients

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Body: Aims: We sought to determine the incidence of PH in three groups [patients receiving hemodialysis (HD), patients receiving peritoneal dialysis (PD), and patients that had undergone renal transplantation] and compare the results from pulmonary function tests (PFTs) and the 6-minute walk test (6MWT) in PH patients versus those without PH across the three groups. Methods: A prospective study was performed on 116 patients (HD = 55, PD = 17, and post renal transplantation = 44) who underwent Doppler echocardiography. PH was defined as systolic pulmonary artery pressure > 40 mm Hg. Demographic details, clinical characteristics and physiological parameters were collected and compared among patients with and without PH. Results: Twelve (21.8%) patients with HD, four (23.5%) patients with PD, and eight (18.2%) post renal transplantation patients were found to have PH. In the HD group, the PH patients were older than those without PH (58 yr \pm 15.6 and 44 yr \pm 13.5, respectively, p = 0.003). Also in the HD group, the physiological data, including pulmonary function test parameters, final Borg score, and walking distance during the 6MWT, were all significantly lower in patients with PH compared to those without PH (all, p <0.0001). However, in the PD and post renal transplantation groups, no significant difference was noted in the demographic details, clinical characteristics, PFT parameters or 6MWT data when PH patients were compared to those without PH (all, p > 0.05). Conclusion: Marked alterations in PFTs and walking distance in hemodialysis patients may reveal a subset of patients suffering from PH.