Objectives: To compare the prevalence of unexplained pulmonary artery hypertension (PAH) in hemodialysis (HD) and peritoneal dialysis (PD) patients and to compare laboratory parameters between patients with unexplained PAH and those with normal pulmonary artery pressure (PAP). Methods: We retrospectively reviewed the medical records of 278 chronic HD and 145 chronic PD patients. Laboratory findings including hemoglobin, calcium, phosphorus, alkaline phosphatase, albumin, parathyroid hormone level, serum iron, total iron binding capacity, ferritin, creatinine and blood urea nitrogen were documented. The results of transthoracic Doppler echocardiography were used to determine the pulmonary artery pressure (PAP). PAH was defined as a systolic pulmonary artery pressure (SPAP) (mayor o igual que) 35 mmHg. To rule out secondary PAH, patients with cardiac disease, pulmonary disease, collagen vascular disease, volume overload at the time of echocardiography and positive human immunodeficiency virus test were excluded. Results: Data from 34 patients in group HD and 32 individuals in group PD were analyzed. The median age of the study population was 57 (45 - 68) years. The median SPAP value in patients with PAH was 37.5 (35 - 45) mmHg. According to the echocardiographic findings, PAH was found in 14 (41.1%) patients of HD group and in 6 (18.7%) patients of PD group (P = 0.04). The median serum iron and hemoglobin was significantly lower in patients with PAH compared to those in patients with normal PAP (P < 0.05). Conclusion: Unexplained PAH seems to be more frequent in patients undergoing HD than patients in PD group. Moreover, hemoglobin and serum iron levels are lower in patients with PAH compared to those in normal PAP group.

Keywords
Unexplained pulmonary hypertension, Peritoneal dialysis, Hemodialysis.