

PULMONARY HYPERTENSION IN PERITONEAL DIALYSIS AND HEMODIALYSIS PATIENTS. WHICH IS ITS IMPACT IN THE SURVIVAL?

Merita Rroji (Molla),¹ Saimir Seferi,¹ Majlinda Cafka², Nestor Thereska.¹

¹Department of Nephrology;²Department of Cardiology, Universtity Hospital Center "Mother Teresa", Albania

- **Introduction:**

Pulmonary hypertension (PH), a disease which carries substantial morbidity and mortality, has been reported to occur in 25%-45% of dialysis patients. To compare the pulmonary artery hypertension (PAH) in hemodialysis (HD) and peritoneal dialysis (PD) patients and its relation with diastolic dysfunction and survival of patients in dialysis therapy).

- **Methods:**

This is an observational study started on January 2011, studied 80 stable HD patients (females 37.5%, mean age 50.36±12.34years) and 45 PD patients (females 40%, mean age 55.07±13 years) on renal replacement therapy (RRT) for more than 3 months. Serum biochemical parameters were collected one month before echocardiography for each patient. The echocardiographic techniques and calculation of different cardiac dimensions and volumes were performed according to the guidelines of the American Society of Echocardiography. Doppler echocardiography were used to determine the pulmonary artery pressure (PAP). PAH was defined as a systolic pulmonary artery pressure (SPAP) ≥35mmHg. Diastolic dysfunction (DD) was evaluated using (E/E') ratio, by tissue Doppler imaging in peritoneal dialysis (PD) and hemodialysis (HD) patients. To rule out secondary PAH, patients with pulmonary disease, collagen vascular disease, and volume overload at the time of echocardiography were excluded

- **Results:**

According to the echocardiographic findings, PAH was found in 26 (32.5%) patients of HD group and in 9 (20%) patients of PD group (p=0.035). It was found a moderated correlation between SPAP and E/E': Spearman correlation coefficient= 0.295, p=0.001. This relationship was found both in HD (Spearman correlation coefficient= 0.315, p=0.005) and in PD group (Spearman correlation coefficient= 0.318, p=0.033). Significant higher value of SPAP was found in patient with CV mortality in comparison with patients alive in therapy: 40.27±9.145 vs 33.29±6.37 (p=0.011)

- **Conclusions:**

We didn't found significant diference in ventricular geometry between two dialysis modalities. Concentric hypertrophy is the most frequent left ventricular geometry in in patients treated with PD. LVH, inflamation and CaxP product are interrelated and combine adversely to increase mortality and cardiovascular death risk of dialysis patients.

