Introduction

Cardiovascular complications are major causes of mortality in patients with chronic renal failure (CRF) receiving regular hemodialysis***. (Locatelli et al., 2001).***

Pulmonary hypertension (PHT) is a well known , though uncommon complication of ESRD***.(Yigla et aL.,2003).***

The vascular access formed for hemodialysis therapy is artificial often causing a large left to right shunt whose capacity often increases with time. Currently, there are no standard criteria regarding optimal arterio-venous access size***. .(Yigla et aL.,2003).***

Yigla and coworkers mentioned that the impact of large arterio-venous access on the pulmonary circulation has not been studied extensively. They suggested in their comprehensive studies that pathologic elevation of pulmonary arterial pressure (PAP) occurs in those patients whose pulmonary circulation cannot compensate for the arterio-venous access-related high cardiac output. They recommended surgical reduction of oversized arterio-venous accesses should be considered in patients with PHT and extremely high cardiac output who demonstrate reduction of both cardiac output and PHT following temporary closure of their arterio-venous access***. (Yigla et al., 2006).***

Pulmonary arterial pressure (PAP) may be further increased by high cardiac output resulting from the arterio-venous access itself,

worsened by commonly occurring anemia and fluid overload **.*(Yigla et al.,2006).***

Pulmonary hypertension (PHT) is a progressive fatal pulmonary circulatory disease that accompanies many conditions (including left to right side shunt) with compensatory elevated cardiac output. PHT also complicates chronic hemodialysis (HD) therapy immediately after the creation of arterio-venous access. Affected patients have significantly higher cardiac output**. *(Yigla et al., 2003).***

Pulmonary hypertension (PHT) is associated with statistically significant survival disadvantage. It appears that patients with ESRD acquire endothelial dysfunction that reduces the ability of their pulmonary vessels to accommodate the access mediated elevated cardiac output, exacerbating the PHT**.*(Yigla et al .,2006).***

The prevalence of PHT in ESRD patients on hemodialysis has been documented to be 29-52 % by echocardiography. ***(Anna et al., 2010).***

Doppler echocardiography screening of ESRD patients scheduled for HD therapy for the occurrence of PHT is indicated. Early diagnosis enables timely intervention currently limited to changing dialysis modality or referring for kidney transplantation. ***(Yigla et al .,2006).***