**PROCOLLAGEN TYPE I CARBOXY-TERMINAL PROPEPTIDE IS ASSOCIATED WITH BLOOD PRESSURE, CARDIAC HYPERTROPHY AND DYSFUNCTION, AND PREDICT CARDIOVASCULAR EVENTS IN HEMODIALYSIS PATIENTS**

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*Objective*: Serum procollagen type I carboxy-terminal propeptide (PICP) is a marker of myocardial fibrosis in hypertensive heart disease. However, the clinical significance of PICP is less determined in end-stage renal disease (ESRD) patients. This study was to evaluate the association of predialysis serum PICP levels with blood pressure (BP), cardiac hypertrophy and function, and the impact of PICP levels on cardiovascular (CV) events in hemodialysis patients.

*Design and Methods*: Serum PICP was obtained from predialysis blood samples of 123 incidental hemodialysis patients. The patients were divided into a low PICP group (n = 61) and high PICP group (n = 62). Baseline laboratory parameters, BP pressure, echocardiographic parameters were compared between groups. The associations between serum PICP and mortality and cardiovascular (CV) events were also investigated.

*Results*: The high PICP group showed significant older, a lower serum albumin, higher systolic BP, higher LVMI and E/E¡¯ and lower EF compared to the low PICP group. A direct correlation was found between serum PICP and LVMI (r=0.308, P=0.002), E/E¡¯ (r=0.236, P = 0.009), E/A ratio (r=0.285, P=0.002). A negative correlation was found between serum PICP and EF (r=-0.289, P=0.001) and DT (r=-0.203, P=0.026). In the multivariate linear regression analysis, the serum PICP was independently positive associated with LVMI and E/E¡¯ and negative associated with EF. In the multivariate cox regression analysis, the event-free survival rates for CV events were significantly lower in the high PICP group compared with those in the low PICP group, and the serum PICP was an independent predictor for CV events.

*Conclusions*: Serum PICP is significantly associated with left ventricular hypertrophy and dysfunction, and predicts CV events in incidental hemodialysis patient