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Pericardial Thickening in Chronic Kidney Disease: What Meaning?

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In this issue of International Journal of Nephrology and Urology, the manuscript by Ijoma et al (1) investigates pericardial alterations in patients with chronic kidney disease (CKD).

Uremic pericarditis is less frequent than in the past, due the advances in management of patients with renal failure. It may be observed in 6-10% of patients with advanced renal failure (2).

Ijoma et al (1) evaluated 88 Nigerian patients with CKD at their first presentation before the start of renal replacement treatment by dialysis and asymptomatic for heart diseases. The authors determined the presence of pericardial disease (defined as pericardial effusion and/or thickening) and the variables associated with the condition. In this study, in contrast with other studies (3-4), pericardial thickening was more prevalent than pericardial effusion (1). Emphasizing the high prevalence of pericardial disease in their sample, the authors underline that echocardiography should be considered as a routine investigation in patient with CKD.

We fully agree with this recommendation, especially if we bear in mind that echocardiography can also detect other pathological conditions which are highly prevalent in patients with CKD, such as left ventricular hypertrophy and /or systolic or diastolic dysfunction (5), or valvular diseases (6).

However, some aspects should be briefly discussed. The authors underline that pericardial disease was present in patients who were not yet on dialysis, and also in patients with stage 3 and 4 CKD. With this regard, we have to consider that the large majority of the study sample (81.8%) was represented by patients with ESRD next to the start of dialysis, thus the finding of high prevalence of pericardial disease cannot be considered as surprising. Further, only one patient with stage 3 CKD was included in the study, thus the analysis of a single case cannot be generalized. With regard to the 15 patients in stage 4 CKD, four had pericardial thickening and one had pericardial effusion. With regard to the higher prevalence of pericardial thickening than effusion, the authors acknowledge that the data are difficult to explain, however they suggest that propensity to fibrosis may have a role. Increased fibrosis, in fact, is also involved in left ventricular structural and functional changes (5).

As the authors acknowledge, a possible explanation for the high prevalence of pericardial thickening they found could be represented by the fact that, in contrast with the Western world, African patients are usually late referred to nephrologists.

Further, it remains to be elucidated if there is a real clinical significance of an isolated pericardial thickening without fusion of pericardial membranes in asymptomatic patients, maybe without diastolic dysfunction (Doppler data were not available).

Taking into account some limitations (small sample size, limited applicability to other ethnic groups, advanced renal dysfunction in the majority of patients

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studied), this study (1), however, gives further data to underline the importance of the search for heart abnormalities in patients with CKD.

Conflict of Interest

None declared.

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