Popliteal Cysts in Chronic Hemodialysis Patients

Dear Sir,

The development of popliteal tumors has recently been reported as a possible manifestation of dialysis-related amyloidosis [1, 2]. This prompted us to carry out a clinical and radiological (ultrasonography and/or CT scan) screening in our hemodialysis patients who were on treatment for more than 60 months.

28 patients were eligible for the investigation; at the time of the study, they had been dialyzed for 127 ± 40 months and solely or mainly cuprophan membranes had been used in all.

11 popliteal masses (maximum diameters 9×5 cm) were detected in 6 (21.4%) of these patients. Table 1 reports the characteristics of these patients; as shown, all suffered from some of the major features of dialysis-related amyloidosis. 10 of the 11 masses were filled with a fluid material, whereas the remaining one appeared dense and partly calcified. In the 3 patients who were investigated by CT scan, cysts could be demonstrated to communicate with the joint cavity (Baker’s cysts) (fig. 1). In 1 of these 3 patients, immunocytochemical analysis demonstrated diffuse β2-microglobulin-amyloid deposition within the synovial wall of the surgically removed cyst. Interestingly, in this patient a β2-microglobulin-positive synovitis of the same knee had been demonstrated by arthroscopy some months before the popliteal mass developed; this could suggest that amyloid deposition was the initial event in the formation of the cyst.

Our findings confirm the high prevalence of popliteal tumors in chronic hemodialysis patients, probably secondary to amyloid deposition; conversely, the development of such tumors in these patients would include amyloido-sis in the differential diagnosis.

References