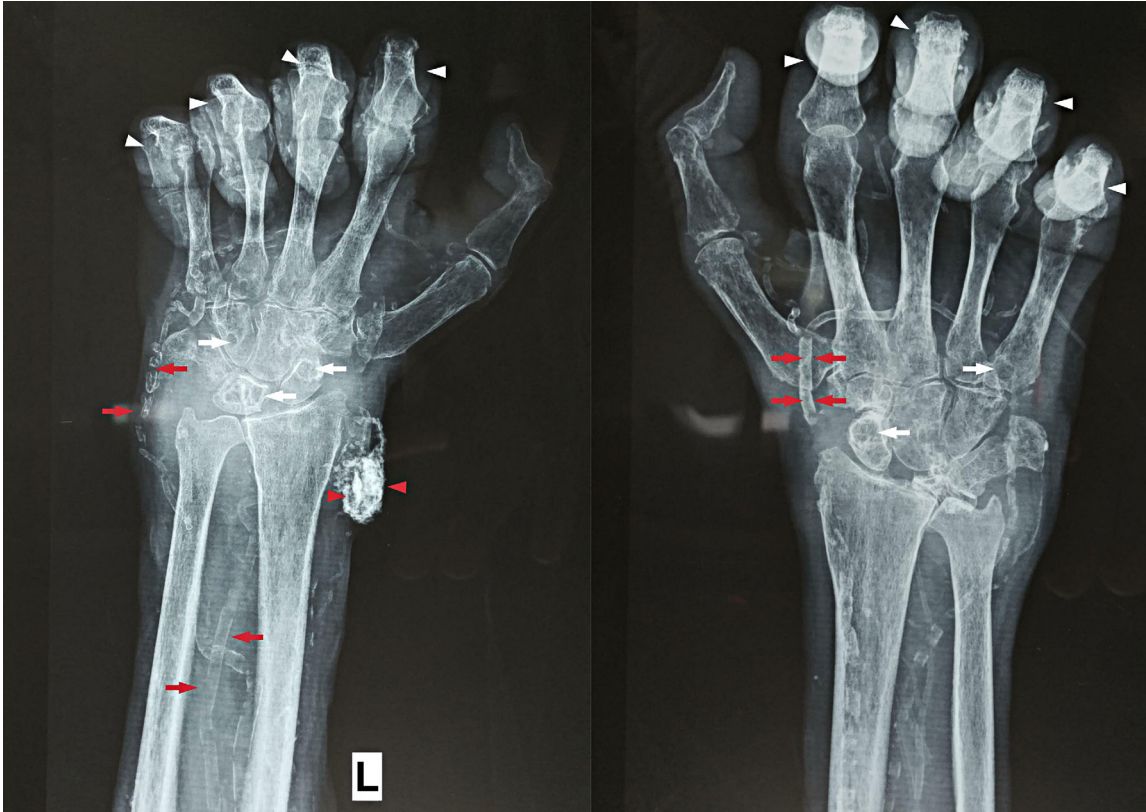


DOI 10.1002/acr2.11394

Clinical Images: β_2 -Microglobulin amyloidosis

The patient, a 55-year-old man on hemodialysis (HD) (in-center HD three times per week) for 32 years (low-flux HD for 25 years), presented with a 10-year history of progressive deformity of the hands. The patient was diagnosed with β_2 -microglobulin amyloidosis, or dialysis-related amyloidosis (DRA), on the basis of clinical presentation and radiographic findings. Although histological assessment remains the gold standard for DRA, the diagnosis is usually clinical in patients suspected of needing HD and relies on the combination of typical clinical features, such as carpal tunnel syndrome, camptodactyly, and characteristic radiographic findings of multiple rapidly enlarging bone cysts. The bone cysts are radiolucent lesions and frequently have thin sclerotic margins (white arrows). Amyloid deposition along the flexor tendons of the hand leads to irreducible flexion contractures of the fingers (white arrowheads). Besides DRA findings, vascular calcifications, such as arteriosclerosis (red arrows), and a calcified arteriovenous fistula anastomotic aneurysm (red arrowheads) were also present in our patient's radiography. In the past, DRA was nearly a universal finding in patients with an HD vintage of more than 10 years. Also, DRA has been described in patients undergoing peritoneal dialysis and even in patients with chronic kidney disease before the initiation of dialytic therapy. However, the epidemiology of DRA has decreased in the past 20 years because of the use of high-flux membranes that have superior β_2 -microglobulin clearance, ultrapurified water, and more biocompatible membranes that generate less inflammation (1). Apart from enhancing β_2 -microglobulin clearance by high-flux HD membranes or kidney transplantation, treatment of DRA is otherwise palliative. The most debilitating aspects of DRA are carpal tunnel syndrome and paraparesis due to epidural β_2 -microglobulin amyloid deposition. Moreover, DRA has been shown to predispose to pathologic fractures due to bone cysts in rare cases (2). Analgesics may help with periarticular and bone pain (3).

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