

Images in Medicine

Metastatic calcification: An uncommon issue in peritoneal dialysis



FIG 1. X-ray of the right shoulder joint: (a) white arrow showing massive calcium deposition, which is well-circumscribed, multilobular, periarticular without involvement of the bones; (b) residual calcium deposits after treatment

A 64-year-old woman, diagnosed with chronic kidney disease, stage 5 and on peritoneal dialysis (CKD 5 PD) for the past 3 years, presented with pain in the right shoulder. Her PD schedule comprised of three exchanges of 1.5% and one of 7.5% dialysate (Baxter, India) with 3.5 mEq/L calcium. She was on intermittent calcium carbonate and phosphate binder, and calcitriol. The patient was anuric with ultrafiltration of 1200 ml/day. She did not have any history of skin rash, oral ulcer and colour changes in her extremities or trauma. On examination, the patient had swelling and a limited range of motion at the right shoulder joint. Investigations revealed serum calcium 13.3 mg/dl, serum phosphorus 4.3 mg/dl, 25-hydroxyvitamin D 34.30 ng/ml and intact parathyroid hormone level 19.2 pg/ml. X-ray of the joint showed well-circumscribed, multilobular, calcified periarticular radio-opacity without involvement of bones, suggestive of tumoural calcinosis (Fig. 1a). Following this, calcium supplements and calcitriol were stopped and cholecalciferol was added. The patient was continued on PD with the same composition because of non-availability of low calcium dialysate. After 6 months of treatment, there was a marked improvement in symptoms, serum calcium (8.9 mg/dl) and X-ray findings (Fig. 1b).

Metastatic calcification predominately affects the kidneys, lungs, stomach and the media of arteries, but cutaneous and subcutaneous tissues may be involved.¹ Predisposing factors include an increase in calcium-phosphorus in the serum, the degree of secondary hyperparathyroidism, the level of blood magnesium, the degree of alkalosis, and the presence of local tissue injury.²

Conflicts of interest. None declared

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