

## Osteitis Fibrosa Cystica

A 19-year-old boy, an active sportsperson was hospitalized 2 months back for evaluation of fracture of right arm associated with trivial trauma while playing cricket. The patient was referred to our tertiary care centre for further evaluation of an abnormal radiograph of right humerus done at a community hospital.

On further enquiry, he recollected history of having fracture of right humerus at the same spot 4 years back that had healed within a 4 weeks period. On examination, he had spindle shaped deformities of phalanges of both hands and the patient attributed these abnormalities to repeated insignificant trauma to hands and fingers while playing cricket especially on trying to catch the cricket ball. The rest of the examination was unremarkable. The skeletal survey picked up multiple cystic lesions in the humerus [Figure 1a and b], carpals, metacarpals, phalanges of both upper limbs [Figure 2]. The X-ray of bilateral feet revealed cystic lesions on 5<sup>th</sup> metatarsal on both sides [Figure 3]. Laboratory evaluation revealed normal blood counts, electrolytes, liver function tests, and urinalysis. Patient had azotemia (serum urea = 81 mg/dl, serum creatinine = 4.9 mg/dl) with normal serum total calcium = 9.2 mg/dl (normal 8.0--10.4), serum phosphate = 3.7 mg/dl (normal 2.5--4.5), and elevated serum total alkaline phosphatase = 591 U/L (normal 25-100 U/L). Serum intact PTH level was 1742 pg/ml (Normal 10--65 pg/ml) and 25-hydroxy vitamin D 8 ng/ml (Normal 20--40 ng/ml). 99 m Technetium MIBG (metaiodobenzylguanidine) parathyroid scan showed delayed washout of the tracer suggestive of right lower parathyroid adenoma. A diagnosis of chronic kidney disease with tertiary hyperparathyroidism was entertained and the patient was planned for minimal invasive parathyroid adenomectomy and subsequent renal replacement therapy. This case was missed for 4 years after the first fracture and therefore serves to make clinicians aware of the condition.

Osteitis fibrosa cystica is also known as brown tumor, cystica generalisata, or Recklinghausen's disease of bone developing due to the accumulation of hemosiderin within the vascularized fibrous tissue. Overt radiological signs of hyperparathyroidism associated skeletal disease like osteitis fibrosa cystica are commonly seen with parathyroid carcinoma.<sup>[1,2]</sup>

### Declaration of patient consent

The author certify that he has obtained appropriate patient consent. Patient has given his consent for his images and other clinical information to be reported in the journal. The patient understand that his name and initials will not be published, and due efforts will be made to conceal his identity, but anonymity cannot be guaranteed.

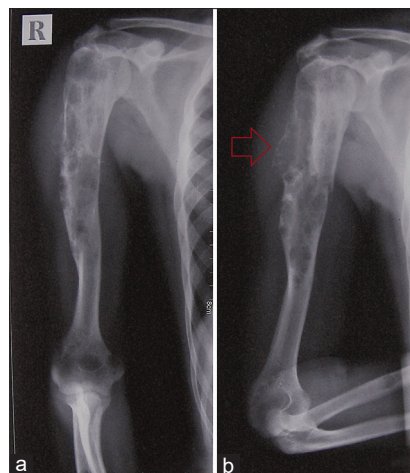


Figure 1: (a and b) Multiple cystic lesions in right humerus and prominence of pathological fracture on elbow flexion (Red arrow)



Figure 2: Generalized osteolytic lesions, subperiosteal resorption and multiple cystic lesions in phalanges, metacarpals, carpal and radius bone of bilateral upper limb



Figure 3: Cystic lesions on 5<sup>th</sup> toe and metatarsal of both feet (Red arrow).

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## Conflicts of interest

There are no conflicts of interest.

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