

A Rare Case Report: Chronic Osteomyelitis of Both Bone Forearm

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Abstract: A 32 year old male patient presented with complaints of pain and swelling in the right forearm since one year without any preceding factors. On examination the swelling was tense and tender, radiological investigation showed multiple cavities in the proximal aspect of right radius and ulna with periosteal reactions. Ultrasonography showed break in the cortex and the connecting tract of infection from the medullary canal to the muscular layer. We posted the case for incision drainage, debridement and curettage. Post operatively covered with high dose antibiotics. Followup showed excellent prognosis and patient returned to his activities. Such a presentation is rare, hence we are publishing.

Keywords: Osteomyelitis; Radius; Ulna.

I. Introduction

Chronic osteomyelitis is a highly debilitating condition that causes significant morbidity and can be extremely difficult to manage. Staphylococcus aureus is the most common cause of osteomyelitis, accounting for more than 50% of cases.¹ we present a case of chronic osteomyelitis of both bone forearm which was successfully treated with debridement and antibiotics.

II. Case Report

A 32-year-old man presented with a progressive swelling over the right forearm since 1 year duration. Initially there was only a minimal swelling and 6 month later he noted another swelling just proximal to initial swelling. Initially he had mild dull aching type of pain. 6 months after the appearance of the swelling he had difficulty in movements. He doesn't have any history of constitutional symptoms like loss of weight, loss of appetite, evening rise of temperature, etc. There was no past history of pulmonary tuberculosis. There was no similar illness in the family.

On examination, there was diffuse swelling which was tender, cystic and there was local rise in temperature and it is non-pulsatile and non-trans-illuminant. There was a slight restriction in pronation and supination. There was no clinical evidence of chest or other joint involvement. His ESR was 65mm/hr, CRP was 60 and all other investigations were normal. X-ray of forearm showed lytic lesion in middle third of radius & ulna with cavities (Figure 1). Clinical picture showed features suggestive of acute on chronic osteomyelitis (Figure 2). Ultrasonography shows break in the cortex with active collection in the muscle layer (Figure 3). Surgical debridement of his right radius & ulna was performed under general anaesthetic. The radius was exposed throughout its length through a volar "Henry" approach & ulna by Boyd's approach. The bony sinuses were thoroughly curetted and lavaged with five litres of normal saline. Pus and gelatinous fibrous tissue was curetted from the medullary cavity then thoroughly irrigated with 5 litres of normal saline along with multiple drilling was done in the cortex. The wound was closed with 3-0 nylon, and was covered with dry dressings. Postoperatively he started on 1.5 g of IV cefaperazone and 500 mg of amikacin twice daily. Renal function was checked every 48 hours. Analgesia was IV paracetamol and oral diclofenac. The wounds were checked at 48 hours and showed no signs of infection. Later check x ray taken (Figure 4).

Patient was followed up for 1 year without any recurrence. His postoperative hand functions were excellent and full range.

III. Discussion

Primary diaphyseal chronic osteomyelitis of both bone forearm is a rare condition. Conventional treatment consists of highdose intravenous antibiotics for at least six weeks.² Disadvantages of this regimen include prolonged hospital stay, cannula-site infections and thrombosis, and increased costs. Studies in some centres have shown good results with combination intravenous and oral antibiotic therapy.³ We demonstrate cure of resistant chronic osteomyelitis of the both bone forearm with surgical debridement and combined intravenous and oral antibiotic therapy. In a primarily diaphyseal intracortical lesion, as in our case, it is essential to exclude osteoid osteoma, intracortical haemangioma and Brodie's abscess.⁴ Because of such varied clinical and radiological presentations, biopsy and culture are necessary to establish the diagnosis. This

particular case merits special attention because isolated diaphyseal tuberculous osteomyelitis without articular involvement is a rarity in an immunocompetent individual.⁵ Normal plain radiographs in cases of suspicion require more sensitive investigations such as Montaux test, MRI and CT scan to detect and localise the lesion. Biopsy is mandatory to confirm the diagnosis. Antibiotics remain them in stay of treatment and judicious surgical intervention (debridement and curettage) help to promote early healing.

IV. Conclusion

Chronic osteomyelitis requires a high index of clinical suspicion. Markers of acute inflammation such as ESR and C-reactive proteins are usually elevated, but are nonspecific. Radiographic appearances of osteomyelitis depend on the stage of presentation at diagnosis, ranging from mild soft tissue swelling to areas of osteolysis with local osteopenia. Similar radiological findings may be seen in many other conditions. Surgery is a valuable adjunct in establishing the diagnosis by histopathological analysis and in evacuation of an abscess or debridement of necrotic bone.

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Legends of Figures

Figure 1: X-ray of forearm: Pre operative

Figure 2: Clinical Picture: Showing multiple swellings

Figure 3: Ultrasonographic image of the swelling and its shows the break in the cortex

Figure 4: X-ray Of Forearm Ap/Lateral: Post Operative Image



