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Tuberculosis of Calcaneum: A Rare Case Report

Orthopaedic

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ABSTRACT

Tuberculosis is a leading cause of morbidity and mortality in developing countries including India. Skeletal tuberculosis accounts for 1-3%. Tuberculosis of bone may evade the diagnosis for a long time, as it usually remains silent till either involvement of a neighbouring joint or development of a soft tissue swelling due to cold abscess formation. Tuberculosis of bone mimics clinical conditions like Chronic Osteomyelitis, Madura mycosis and Actinomycosis. There have been few case reports of unusual sites being affected and with unusual presentation by this disease.

KEYWORDS:

Extrapulmonary tuberculosis, Osteomyelitis, Calcaneum

I-Introduction

skeletal tuberculosis constitutes 1% to 3% of extrapulmonary cases and involvement of foot bones is ever rare (1-2). In the foot the lesion involves calcaneum, talus, 1st Metatarsal and navicular bones in order of decreasing frequency (3-4). The pauci bacillary nature of discharging sinus makes the bacteriological confirmation more difficult and warrants the use of invasive procedure to establish the diagnosis.

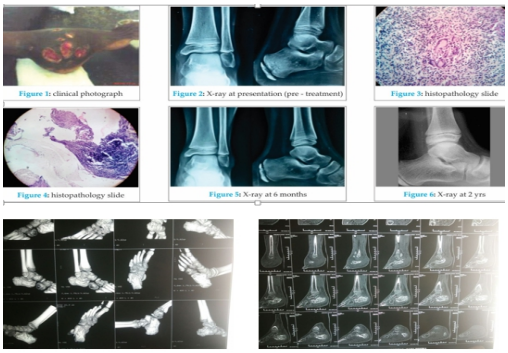
II-Case report

History:

A 8 year old male presented at orthopaedic outpatient department with history of pain, swelling & discharging sinus over right ankle after trauma before 6 month. For 6 months there was no history of fever, night cries, weight loss or any other constitutional symptoms, On local examination localised swelling present over lateral aspect of right heel about 4 cm in maximum dimension below lateral malleolus, swelling was 4×3 cm is size, hard in consistency, non mobile, non compressible and tender to touch, discharging sinus seen overlying swelling ,the skin overlying the swelling with no local-rised temperature.

Investigations:

Haemoglobin –7.8 gm%,Total leucocyte count- 11,500 cells/cm mm with polymorphs 32%, lymphocyte 65%, eosinophills 3%, ESR – 68 mm in 1st hour ,blood sugar–76 mg and liver and kidney function-normal. The routine roentgenogram (PA) was also normal. His serum was negative for HIV antibodies and sputum examination was negative for acid fast bacilli, X-Ray finding of Right ankle was done which showed well demarcated lylic lesion in antero-inferior part of right calcaneum, 3DCT of right calcaneum showed lytic sclerotic area are seen in calcaneum with periosteal reaction and cortical discontinuity at places. Intraarticular extension is seen in subtalar & calcaneo cuboid joints suggestive of ostomyelitis.



Pre Operative 3DCT Scan

Treatment

Curettage of the lesion was performed after anesthetic clearance. A longitudinal incision was given over the swelling and a through curettage of the lesion done. Whitish necrotic tissue was curetted out which was sent for gram staining, culture sensitivity and biopsy. As the defect was small so bone grafting was not done. A below knee plaster of paris slab was applied post operatively. Gram staining and ziehl neelson staining were negative. The culture report revealed positivity for mycobacterium tuberolosis. A histopathological report revealed presence of chronic inflammatory cells comprising chiefly of lymphocytes, plasma cells & epitheliod cells organised in granulomas alone with langhans type of gaint cell. Histomorphology was suggestive of tubercular granulation tissue.

post operatively the patient was put on anti-tubercular treatment, the 4 drugs regimen comprising of isoniazid, Rifampicin, pyrazinamide and erthambutol. At 2 months post-operative follow up the patient was tolerating antituberculer drugs very well. The pre opretive symptom of pain & difficulty in walking had subsided and the morbidity had reduced to a great exent.

Discussion

Conclusion

TB calcaneum is an extremely rare presentation leading to misdiagnosis. Lytic lesion with long standing history should never be ignore. We concluded that TB calcaneum is a very rare condition and can be treated conservatively unless a associated with discharging sinuses, metastaticchanges or any other complications. Conservative treatment with AKT has excellent results without any complications.

Clinical message TB calcaneum through rare, should be evaluated cautiously when presented to OPD. These pathologies can be conserved with strict supervision on doses of AKT and blood profile. Surgical exploration and resection is the treatment of choice when associated with complaints.

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