ORIGINAL RESEARCH PAPER

Volume-8 | Issue-3 | March-2019 | PRINT ISSN No 2277 - 8179

INTERNATIONAL JOURNAL OF SCIENTIFIC RESEARCH

CASE REPORT : MUSCULOSKELETAL TUBERCULOSIS PRESENTING AS THIGH SWELLING

General Surgery

Prudhvi Gorji* Post Graduate, Department of General Surgery,DR.PSIMS AND RF, Chinnaoutpally, Gannavaram. *Corresponding Author

T. Venu Gopal Post Graduate, Department of General Surgery,DR.PSIMS AND RF, Chinnaoutpally, Gannavaram.

K. A.S.S.N. Kalyan Assistant Professor, Department of General Surgery,DR.PSIMS AND RF, Chinnaoutpally, Gannavaram.

ABSTRACT

Skeletal muscle tuberculosis without underlying osseous or extra osseous involvement is an extremely rare presentation of tuberculosis. We present a case of isolated tubercular abscess of the adductor and Vastus compartments of thigh without an evident primary focus in a 55 year old immunocompetent male. The diagnosis was confirmed by histological examination. The patient was managed by non dependent suction drainage under ATT coverage.

KEYWORDS

Musculo skeletal tuberculosis, Thigh Abcess, Mycobacterium Tuberculosis, Acid Fast staining.

INTRODUCTION

- About 3% of patients with tuberculosis have musculoskeletal involvement, mostly spondylitis, osteomyelitis or arthritis. However, primary tuberculous involvement of skeletal muscle has rarely been described in the medical literature, and its manifestations may mimic malignant or other inflammatory diseases, leading to misdiagnosis [1]. Most of these cases have been reported in patients in an immunocompromized state, having chronic illness or with underlying bone disease. We present a case of intramuscular tuberculosis of adductor and vastus compartments of thigh in an immunocompetent male without any primary source of infection.

CASE REPORT

- A 55 year old man presented to hospital with swelling in his left proximal thigh anterior and inner aspect for 4 years.There was associated history of low grade dragging pain and evening rise of temperature.He was a known case of diabetes since 3 years and on oral hypoglycaemics. There was no associated respiratory complaint, weight loss or anorexia. There was no history of trauma at the affected site or a history of close contact with tuberculosis.
- Clinical Examination revealed a soft, ill-defined swelling 15cm X 8cm X 4cm in size in the medial and dorsal aspect of left proximal thigh, well separated from the underlying bone. The skin over it appeared normal, mobile and with no sinuses. There was no limitation of motion of ipsilateral hip or knee joint. The distal neurovascular status was normal. FNAC reported as abundant neutrophils and macrophages in cellular matrix suggestive of abscess. Radiographs of the chest, ipsilateral femur and hip joint are normal.

Fig.1:Swelling over medial side of Left thigh

- MRI scan showed a lobulated well defined mass involving adductor and vastus compartments of thigh.The lesion displayed low signals on T1 and inhomogenously bright signals on T2 weighted images

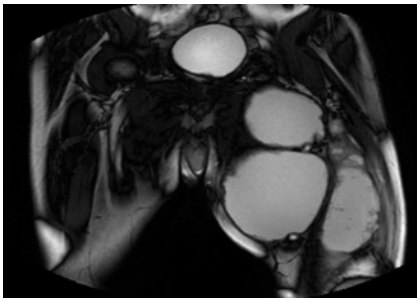

Fig : 2 MRI axial section of left thigh

- ESR was elevated at 90, blood counts and renal parameters were within normal limits. ADA was positive. PCR of the pus was positive for Mycobacterium tuberculosis.

Treatment

- Patient was started on ATT cat 1 i.e. regimen of four –drug antitubercular chemotherapy (2HRZE/4HR3) and Suction drain placed at non-dependent location and about 2000ml pus drained and drain removed after 5 days. Patient improved clinically.

DISCUSSION

- Tuberculosis has staged a remarkable comeback today following HIV infected cases. Unusual presentations of tuberculosis are being increasingly diagnosed in both immunocompromized and immunocompetent hosts[2]. About one-fifth of diagnosed new cases of tuberculosis have an extrapulmonary lesion, of which about one-tenth involve the musculoskeletal system. Tuberculosis of soft tissue without underlying bony pathology is rare and the pathogenesis is still confusing [3].There are very few reports in the English literature of primary muscular tuberculosis without any involvement of bone or in immunocompetent patients [4-8]. Petter[9] recorded only one case of primary muscular tuberculosis in over 6,000 cases of all types of tuberculosis, an incidence of 0.015 per cent. Hence, as such isolated primary skeletal tuberculosis without any associated involvement of the adjacent bone or viscera is considered only a diagnosis of exclusion over a soft tissue tumour or a pyogenic abscess. It is of interest to note that most of the reported cases have been described frequently in association with immunodeficient individuals as in HIV infected patients, renal failure patients, patients on chemotherapy or corticosteroid and chronic drug abusers[3,10,11]. A few reports have indicated that primary tuberculosis in muscle may be transmitted by direct inoculation with contaminated needles and syringes[12]. Pathogenesis of skeletal muscle tuberculosis is still not understood well. Most of the authors believe the involvement of skeletal muscle to be secondary to underlying bones, bursae, synovial sheaths of nearby joints, by direct inoculation (trauma, syringe) or

hematogenous dissemination but selective primary muscular involvement without osseous involvement is rare[13]. The bursa around the ischial tuberosity and the greater trochanter bursa are the most common bursae to be affected by tuberculous bursitis which could subsequently lead to involvement of the muscles of the thigh[11]. Our case is of interest because there was no involvement of underlying bone or the bursae as evident from the radiographs and MRI findings. The rarity of skeletal muscle tuberculosis has been variously attributed to high lactic acid content of muscles, absence of reticuloendothelial or lymphatic tissue, rich blood supply and the highly differentiated state of muscle tissue. However, none of these possibilities seem to be an adequate explanation[4]. As seen in the present case, skeletal muscle tuberculosis usually has a slow clinical course and can be misdiagnosed as sarcoma, or perhaps a benign soft tissue tumour. Parasitic infections like cysticercosis or hydatid cyst, fungal infection, hematoma with secondary infection can present with similar soft tissue mass. High index of clinical suspicion is the key to diagnosis. Possibility of tuberculous abscess should be strongly considered in endemic areas. Blood parameters may not be indicative of any infectious pathology and raised erythrocyte sedimentation rate may be the only consistence finding[3]. A normal chest radiograph, absence of systemic symptoms, or the absence of other foci of active tuberculosis should not dissuade one from making the diagnosis. MRI scan of the involved muscle can be very helpful in differential diagnosis. Prognosis is usually good with appropriate antitubercular therapy and surgical intervention.

REFERENCES

1. Wang JY, Lee LN, Hsueh PR, Shih JY, et al. Tuberculous myositis: a rare but existing clinical entity. Rheumatology 2003; 42: 836-40
2. Global tuberculosis control: surveillance, planning, financing. WHO report 2005. Geneva, World Health Organization(WHO/HTM/TB/2005.349)
3. Sen RK, Tripathy SK, Dhatt S, et al. Primary tuberculous pyomyositis of forearm muscles. Indian J Tuberc 2010; 57:34-40
4. Dhananjya S, Kumar V. Primary tuberculous abscess of rectus femoris muscle. A case report. J Infect Dev Ctries 2009; 3:476-78
5. Nuwal P, Dixit R. Tuberculosis of rectus abdominis muscle. Indian J Chest Dis Allied Sci 2007; 49: 239-240
6. Trikha V, Gupta V. Isolated tuberculous abscess in biceps brachii muscle of a young male. J Infect 2002; 44:265-66
7. Narasimhan R, Gayathri AR, Hegde SK. Tuberculous abscess of soleus muscle. A case report. Lung India 2005; 22:130-31
8. Abdelwahab IF, Keenan S. Tuberculous abscess of the brachialis and biceps brachii muscles without osseous involvement. A case report. J Bone Joint Surg Am 1998; 80:1521-24
9. Petter CK. Some thoughts on tuberculosis of fascia and muscle. Lancet 1937;/57:/156-/9
10. Ergin F, Arslan H, Bilezikci B, et al. Primary tuberculosis in the gluteal muscle of a patient with chronic renal failure. A rare presentation. Nephron 2001; 89:463-66
11. Puttick MPE, Stein HB, Chan RMT, et al. Soft tissue tuberculosis : a series of 11 cases. J Rheumatology 1995; 22(7): 1321-25.
12. Heycock JB, Noble TC. Four Cases of Syringe-transmitted Tuberculosis. Tubercle 1961; 42:25-27
13. Derkash RS, Makley JT. Isolated tuberculosis of the triceps muscle. A case report. J Bone Joint Surg Am 1979; 61:948