

A Rare Case of Tropical Pyomyositis

Sugha Varuna

In charge, Pediatrics Unit, Civil Hospital, Bhawarna, Distt Kangra (HP)

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ABSTRACT

Tropical myositis is a primary muscle abscess arising within the skeletal muscle which strictly excludes intermuscular abscesses, abscesses extending from adjoining bone/subcutaneous tissues, and those secondary to previous septicemia. The purpose of the case report is to bring awareness for tropical pyomyositis and the importance of early detection and culture-guided initiation of IV antibiotics for salvaging adjoining joints and prevention of other complications such as deep venous thrombosis and septic emboli, metastatic abscesses and dissemination, septicemia and septic shock and toxic shock syndrome.

Keywords: Tropical pyomyositis, abscess, antibiotics

CASE DESCRIPTION

This case report describes the clinical and imaging features of a 9 years old male child who came to the OPD with a chief complaint of fever for 15 days, left lower limb pain and swelling for 13 days, and limp while walking for 4 days after sustaining a fall from a bicycle. There was swelling over the left thigh insidious in onset, progressively increasing in size, not associated with redness, and tender to touch. There was no history of swelling or pain in any other joints, skin lesions or swelling elsewhere in the body, ear discharge, rashes, seizures, altered sensorium, or recent injection at the same site. No history of loss of weight or appetite, cough, difficulty in breathing, or abdominal pain. The child was

immunized for age, and the birth and perinatal history were uneventful.

There was a firm, tender, and indurated area over the left thigh with tenderness, restriction of motion is present in the extension and adduction of the hip joint.

The blood investigations showed Hb 7.8gm/dl, WBC count 17400cumm, with predominant neutrophils and thrombocytosis with a platelet count of 7.07 lakh. The CRP was 145mg/dl and ESR was 113mm/hr. The LFT and RFT was normal. Ultrasound-guided aspiration done The ultrasound left hip and knee joint showed no evidence of effusion in the hip joint, muscles of the anterior compartment of the left thigh were bulky and heterogenous with an organized collection of size 1.7 x 1.7 cm in mid thigh. (Figure 1) In the left knee joint, 2.5cm x 0.5 cm suprapatellar effusion was seen.

The pus culture grew Staphylococcus aureus (MSSA) sensitive to oxacillin, vancomycin, linezolid, and clindamycin. The HIV serology was negative.

As the child was having persistent high fever spikes, MRI was done to see the extent of local involvement. The T1 sequence in MRI showed a Hypointense lesion with Post contrast abscess peripheral rim enhancement with central diffusion restriction. T2 FLAIR showed High signal intensity. (Figure 2).

Arthrotomy, debridement, and lavage were done by the orthopedics team, and traction applied to prevent contractures

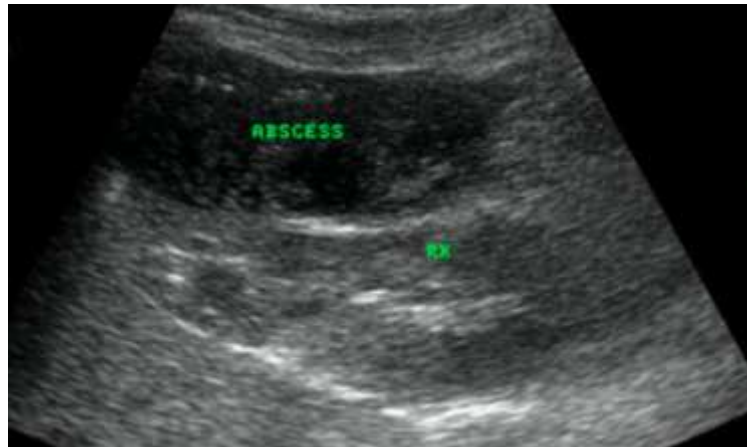


Figure 1: USG showed an organized collection of 1.7 x 1.7 cm and bulky muscle.

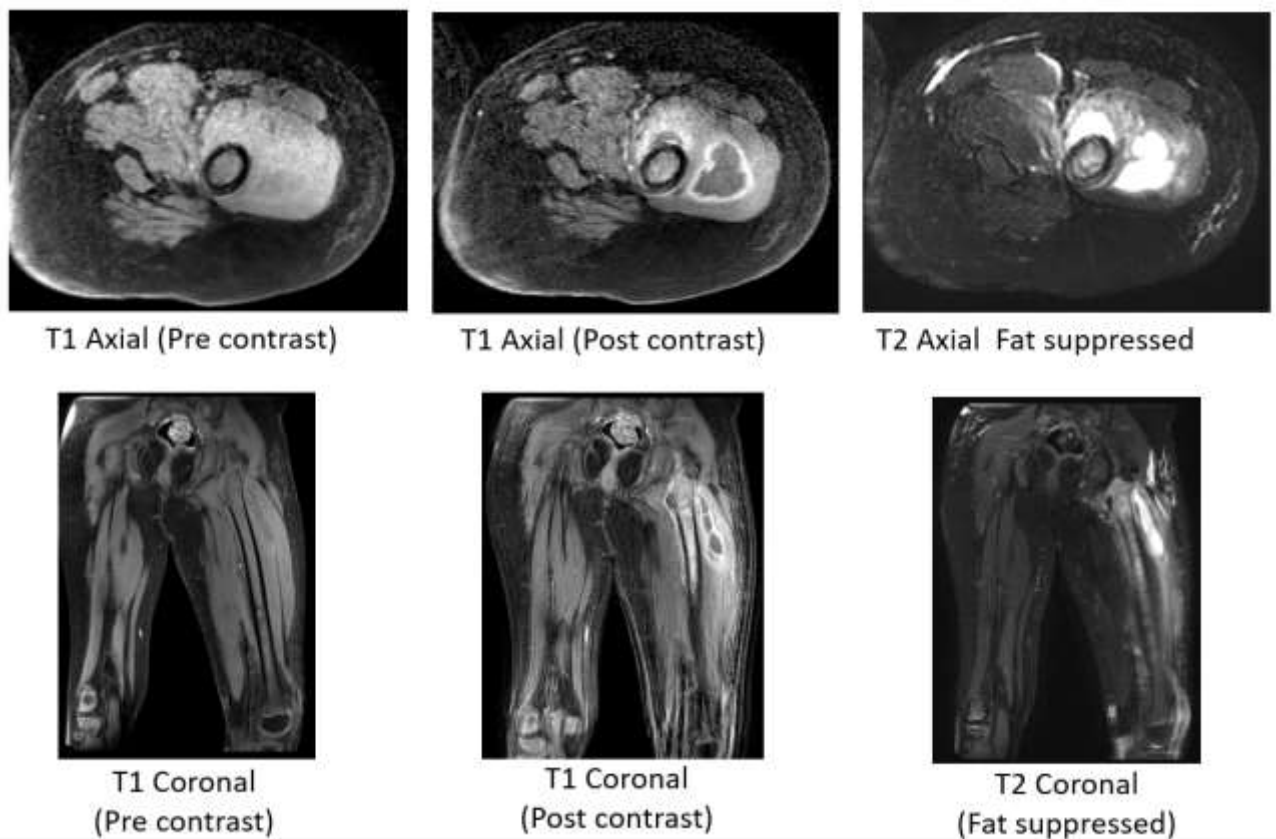


Figure 2 MRI shows MRI showed Hypointense lesion with Post contrast abscess peripheral rim enhancement with central diffusion restriction.

DISCUSSION

Tropical myositis is a primary muscle abscess arising within the skeletal muscle which strictly excludes: Intermuscular abscesses, abscesses extending from adjoining bone/subcutaneous tissues, and those secondary to previous septicemia. (1) The most commonly affected muscles are the quadriceps femoris (60%), gastrocnemius and soleus (35 %), iliacus and psoas(30%), obturator internus,

externus and gluteal muscles(20%) There are 3 clinical stages: Stage 1(Invasive) where painful swelling, fever, tenderness, wooden consistency is present. Stage 2 (Purulent/Suppurative) with high spiking fever, extreme pain, erythema, and fluctuation. On Aspiration pus is present. Stage 3 (Dissemination) has Multiple abscesses, septicemia, septic shock, and multiorgan failure. (2)

The treatment in stage 1 involves giving parenteral antibiotics alone. However, in stages 2 and 3 surgical debridement, drainage, and IV antibiotics are needed. The duration of antibiotics, if the collection is localized is 7 to 10 days after the child is afebrile, the wound is clean and TLC is normal, in case of metastatic collections, 4 to 6 weeks of parenteral antibiotics are needed. (3)

The acute complications of tropical pyomyositis involve osteomyelitis/arthritis adjacently, deep venous thrombosis and septic emboli, metastatic abscesses and dissemination, septicemia, septic shock, and toxic shock syndrome. The chronic complications are muscle contractures, functional impairment or weakness, and local site defects in underlying soft tissue or muscle. (4)

In our patient, ultrasound-guided aspiration was done and appropriate antibiotics were started. Since the fever was persisting, MRI was done to see the extent of local involvement. Arthrotomy, debridement, and lavage were done by the orthopedics team and traction was applied to prevent contractures. He was continued on IV antibiotics till the fever subsided and inflammatory parameters came down and then discharged on oral antibiotics.

CONCLUSION

In tropical pyomyositis, it is important to detect and start antibiotics based on culture-sensitivity for salvaging adjoining joints and prevention of other complications such as

deep venous thrombosis, septic emboli, metastatic abscesses and dissemination, septicemia, septic shock, and toxic shock syndrome.

Declaration by Authors

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