



## A Case Report on Myositis Ossificans in Adductor Brevis

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**ABSTRACT** Myositis ossificans or florid ossification is a pseudo-inflammatory tumor in which pathological bone formation in soft tissue occur that normally do not ossify. The management is mostly done conservatively and operative removal of the ossification is indicated only in those cases in which it occurs near a joint in the origin or the insertion of a muscle, where joint function is permanently impaired, and that only from twelve to twenty-four months after the injury. We are reporting a case of Myositis ossificans in adductor muscles in an adult with head injury and successfully managed by surgical excision.

**KEYWORDS** Myositis ossificans, florid ossification, Head injury, Surgical Excision.

**INTRODUCTION-** Myositis ossificans or florid ossification is a pseudo-inflammatory tumor in which pathological bone formation in soft tissues occur that normally do not ossify[1,2]. The causative and potential predisposing factors of MO remain unclear. Myositis ossificans can occur as a result of trauma, either acute or chronic and can also arise near joints in neurological disorders. However, in most cases no causative factor can be identified.[3] MO has many clinical symptoms, but one common presentation is as a very inflammatory, rapidly growing, and painful muscular mass[1,4]. In a typical case the dramatic onset and the symptom intensity strongly suggest the diagnosis of MO

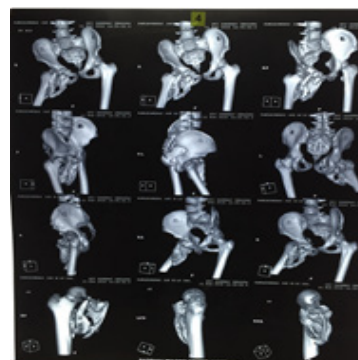
In its early phase MO can be mistaken for a malignant soft tissue sarcoma.[5] Ossifications are usually observed in MO but should be distinguished from soft tissue ossifications of other causes, e.g., periarticular ossifications (paraosteoarthropathies) that usually occur in a context of central neurologic pathologies. In our case myositis ossificans developed after head injury and bilateral pubic rami fracture.

**CASE REPORT-** A 18 year old male student by occupation sustained multiple injuries by fall from tractor in April 2014 and had head injury (fractures in left parietal and temporal area with contusions in right temporal and frontal region with SAH) and B/L pubic rami fracture. He had 1 month ICU stay and was applied B/L below knee skin traction for 1 month. Patient developed stiffness in right hip in this period of 18 months and was advised physiotherapy.

After 18 months patient presented with tender bony hard lump extending from inguinal ligament to upper third of thigh. He had fixed flexion deformity 30°, abduction deformity 30°, external rotation deformity 30° and ROM was 30°-80° flexion, abduction 30°-45° external rotation 30°-45° and other movements like internal rotation, adduction, extension were absent.



**Fig-1** Xray AP view showing extraosseous calcification on medial border of Right femur extending from head to 5 cm below lesser trochanter



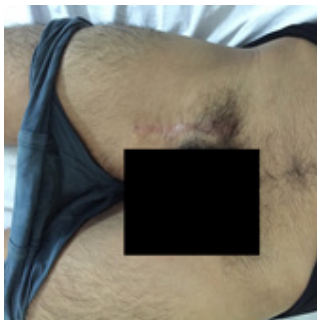
**Fig-2** 3D reconstructed CT film showing malunited fracture of right superior and inferior pubic rami with myositis ossificans extending from superior pubic rami to proximal femur upto 5 to 7cm below lesser trochanter of femur on CT posteromedial aspect

Lab investigations were normal except raised serum alkaline phosphatase. On Xray and CT Scan there was malunited fracture of right superior and inferior pubic rami with myositis ossificans extending from superior pubic rami to proximal femur (upto 5 to 7cm below lesser trochanter of femur on CT posteromedial aspect) and MR Angiogram shown no vascular compression.



**Fig-3 Clinical picture of patient in standing position after surgical excision of myositis ossificans**

**MANAGEMENT-**Excision of myositis ossificans was done under spinal anesthesia on Oct 2015. Intraop findings shown myositis ossificans in adductor brevis. Excision of proximal part of medial half of ossification was done and laterally vessels were found in close proximity with fibrosis so could not be excised. Posteromedial part of ossificans couldn't be reached through anterior approach so manipulation was done Mobilization was started from post op day 2 and post op ROM was flexion 10° to 90°, abduction 0° to 50°,



**Fig-4 Surgical scar of anterior approach after surgical excision of myositis ossificans mass from adductor brevis**

adduction upto 10°, int. rotation 20°, ext. rotation 0° to 45°. At the time of discharge wound was clean and healthy and was prescribed cap. Indomethacin 1 HS and advised hip flexion abduction adduction and rotational exercises.



**Fig -5 Clinical picture in supine position showing flexion at hip around 100 degree**

**FOLLOW-UP** –At 10 months follow up patient was walking

without support and had limp and was able to sit/squat/jump. The ROM of flexion and adduction were increased upto 100° and 20° respectively. Patient is able to perform activities of daily living

**CONCLUSION** – A thorough clinical and radiological examination with help of histopathological examination is essential to diagnose Myositis Ossificans. Though it is common in flexor muscles of arm, hamstrings, quadriceps femoris, but it can also be found in adductor muscles of thigh as shown in the above case report.

A surgical approach for the management of Myositis Ossificans results in improvement in range of motion as shown in the above case report and surgical excision can be indicated for better functional outcome when it is impairing joint movements.

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