

Case 11

A 40-year-old man presented with a left leg mass and medical history of tibia and fibula fracture due to a motor vehicle accident and multiple surgeries 30 years prior.

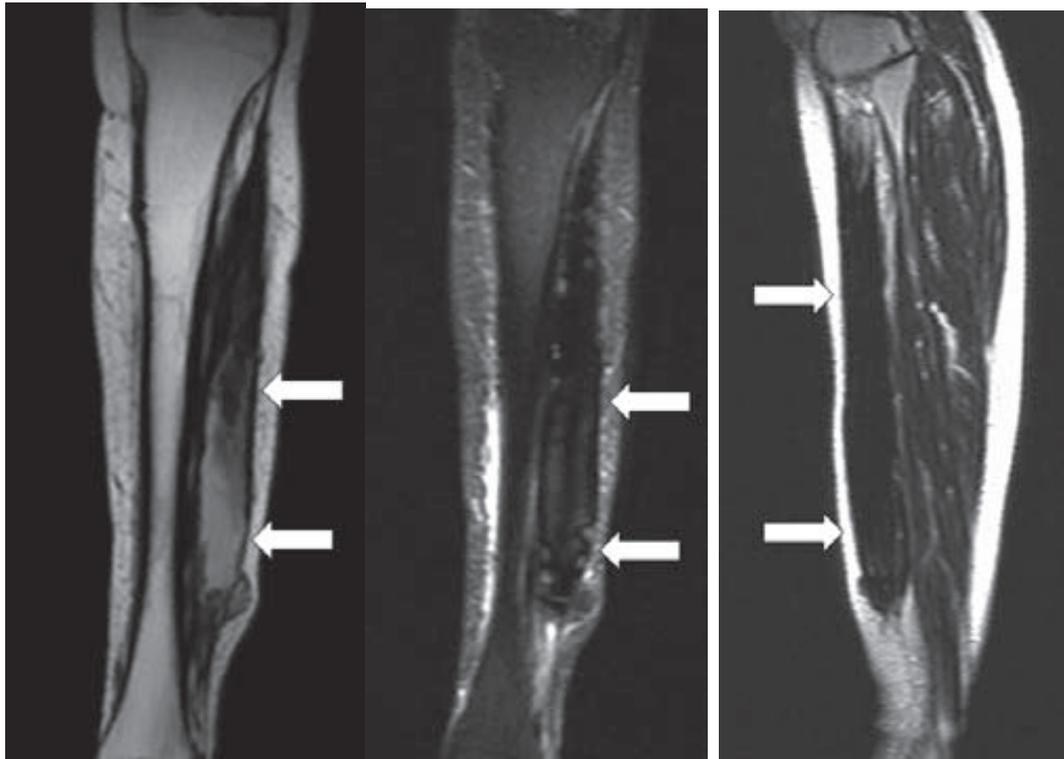


Your Diagnosis

Diagnosis **CALCIFIC MYONECROSIS**

X ray Showing a large fusiform-shaped area of calcification overlying the anterior compartment of the left leg.

MRI



T1-weighted coronal image showing extensive replacement of the muscle of the lateral compartment of the leg for peripheral areas of low and central areas of high signal intensity.

B: STIR coronal demonstrating predominant low-signal intensity

C: T2-weighted sagittal image without fat signal suppression also showing low-signal intensity.

3. CT



C CT reformats showing predominantly peripheral calcifications in the muscles of the lateral compartment (arrows). Axial CT reformat showing predominantly peripheral distribution of the calcifications in the muscles of the lateral compartment

DISCUSSION

There was a history of prior MVA. Imaging findings are consistent with calcific myonecrosis.

Calcific myonecrosis is a rare clinical entity occurring as a late consequence of trauma, usually in the lower limb.

Here there is replacement of muscle in 1 or more compartments with a fusiform mass or masses showing peripheral calcification and central liquefaction.

Usually seen after Myonecrosis following injury to the muscle compartment. It is also seen in patient with dermatomyositis. Biopsy is not recommended due to the high risk of infection.

The treatment for these lesions is “benign neglect” or complete excision.

The main differential diagnoses are sarcomas and myositis ossificans. Sarcomas are aggressive and do not respect compartments. Usually ossification occurs in the central area than periphery.

Myositis ossificans presents with a different calcification pattern and ossification over time. Typically when heterotopic posttraumatic ossification develops in a hematoma, it shows a characteristic peripheral mineralization and is unlikely to be confused with calcific myonecrosis.

In the leg, calcific myonecrosis has a predilection for the anterior compartment.

Unlike traumatic heterotopic ossification, the pattern of calcification in myonecrosis is linear and sheet like and typically occupies the entire muscle or compartment.

The proper recognition of calcific myonecrosis is based on the characteristic sheet like calcification occupying an entire muscle or compartment with areas of central liquefaction, and it is almost always preceded by a remote significant traumatic event.