“PSEUDOMALIGNANT MYOSITIS OSSIFICANS MIMICKING OSTEOSARCOMA: A CASE REPORT”

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Myositis ossificans (MO) is a **benign non neoplastic heterotopic bone formation** that chiefly affects **adolescents and young adults**, with a slight **male** predominance.

Its presenting features can closely **resemble** those of a **soft-tissue sarcoma**, with the resultant potential for inappropriate initial management.
We report such a disease in a young man and discuss pertinent features in the differential diagnosis of this condition.

A 30 year-old man presented with a tender, firm and non-mobile mass in the muscles of the right plica axillaris posterior. The patient had history of injury.
Ultrasound imaging showed a soft-tissue mass with calcification and increased vascularity. An excision biopsy was performed.

The resected specimen was fixed in 10% buffered neutral formalin. Tissue sections were stained with H&E.
The mass excised was firm to hard, measuring 3,8x2,8x2,7 cm. Gross examination showed a ovoid, greyish-white lesion.
Microscopically the mass showed proliferating, immature fibroblasts in the center with hyperchromatic nuclei, with no cytologic atypia and nuclear pleomorphism.
The stroma is richly vascular myxoid and contains osteoclast-like giant cells.
The stroma contains injured myocytes
The mass showed peripheral layer of natural osteoid, with **new bone formation.**
The mass showed a partial "zoning phenomenon" a central layer of cells and peripheral layer of natural osteoid, with new bone formation.
The fibroblasts were positive for SMA, vimentin, negative for S100 protein, desmin. The tumor was reported to be MO.
Conclusions:

In this case, considering the history of traumatic injury, the absence of abnormal mitotic figures and nuclear pleomorphism, the partial "zoning phenomenon", the tumor was reported to be MO, and was advised close together follow-up.
Although MO and soft-tissue sarcomas resemble each other pathologically, the treatment approach for each lesion differs greatly.

The zoning phenomenon is the most important feature for differentiating MO from osteosarcoma. Clinical, histopathological and radiological correlation should be performed to avoid aggressive treatment of MO.
References:

