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DERMATOMYOSITIS: A RARE CASE REPORT

Radiology

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ABSTRACT

Dermatomyositis is rare autoimmune inflammatory myositis, carries an increased risk of malignancy.
Dermatomyositis is a rare case characterized by skin changes and muscle weakness.
Magnetic resonance imaging is the modality of choice in the diagnostic work-up and monitoring of dermatomyositis affecting muscles, fasciae, and the subcutis.
We are reporting a rare case of dermatomyositis in patient, who came for check up in medicine department and diagnosed on the basis of MRI pelvis with both thigh, Xray PBH, clinical examination and history and confirmed by histopathological examination.

KEYWORDS

INTRODUCTION

Early signs of the disease are characteristic skin lesions that may precede muscle weakness. Progressive muscle weakness with coexisting pain, tenderness and stiffness. Systemic involvement can include cardiovascular, pulmonary (e.g. Interstitial lung disease) or gastro-intestinal complications.

CASE REPORT

A 55 year old female patient admitted to SVP hospital with chief complain of large and small joint pain since 12 months associated with morning stiffness, low grade fever, dysphagia and breathlessness. Patient has complain of difficulty in getting up and decrease ability to walk with facial puffiness.

On examination, patient has multiple areas of calcinosis in bilateral thigh, hips and abdomen, bilateral pedal oedema with hyperpigmentation.

On ultrasonographic examination, calcification with posterior acoustic shadowing is noted at clinical site of complain.

MRI pelvis with both thigh was the performed in Siemens 3T Magnetom skyra MRI machine, images follows- Fig 1 to 3.

DISCUSSION

Dermatomyositis is characterized by involvement of muscles, and less frequently of other systems, including the gastrointestinal tract, heart and lungs.

The inflammation is usually symmetric and classically involves the proximal muscle groups in dermatomyositis, but muscle involvement can also be patchy and asymmetric.

Dermatomyositis have a female predilection. It has a bimodal age of presentation-Juvenile and adult dermatomyositis. Juvenile dermatomyositis is more severe. Adult dermatomyositis typically affects adults around the age of 50.

Pathologically in dermatomyositis, there is cell-mediated injury targeted at striated muscle with resultant atrophy, edema, coagulation necrosis, fibrosis and calcification.

The diagnosis is based on a typical clinical presentation, elevated serum skeletal muscle enzymes, and findings on electromyography and muscle biopsy. MRI accurately documents the extent and intensity of the muscle abnormalities.

There is a sixfold increased risk of malignancy in dermatomyositis.

Dermatomyositis associated with elevated markers such as-muscle enzymes (e.g. CK) and elevated muscle specific antibodies (anti-RNA & anti-Mi2)

Whole-body MRI which provides a complete assessment of inflammation, is used for the monitoring of the disease course and for the evaluation of treatment effects, including side effects.

MRI is used to select an optimal site for biopsy for a histopathological examination.

Radiographs in the acute phase may show discrete soft tissue thickening at the proximal parts of the limbs, increased radiodensity of the subcutaneous tissue and muscle, and poor delineation of the subcutis–muscle interface. In the chronic phase, the most characteristic radiographic features are soft tissue calcifications. They may potentially lead to contractures and localized muscle atrophy.

In MRI, Coronal and axial short tau inversion recovery (STIR) or T2-weighted images, especially with fat suppression (FS), depict increased “oedema-like” signal intensity in affected tissues, representing active myositis, fasciitis and subcutis inflammation

XRAY PBH

Xray PBH Shows Dystrophic Calcification In Muscle And Soft Tissue.

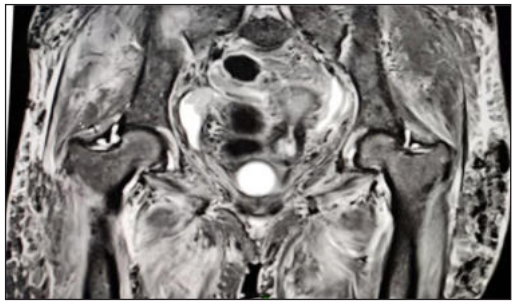

Figure1:-STIR CORONAL IMAGE:Symmetrical hyperintense intramuscular and subcutaneous oedema is noted in bilaterally.

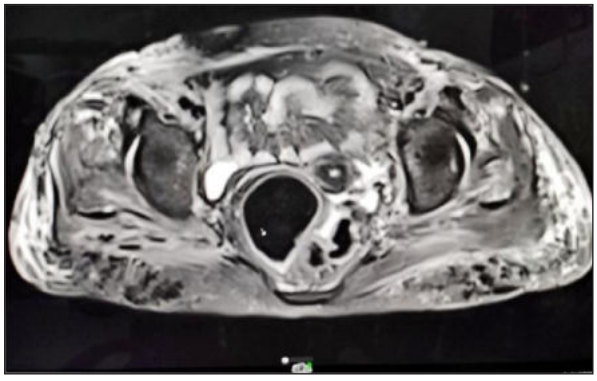

Figure2:- STIR AXIAL IMAGE:Symmetrical hyperintense intramuscular and subcutaneous oedema is noted in bilaterally in all compartments.

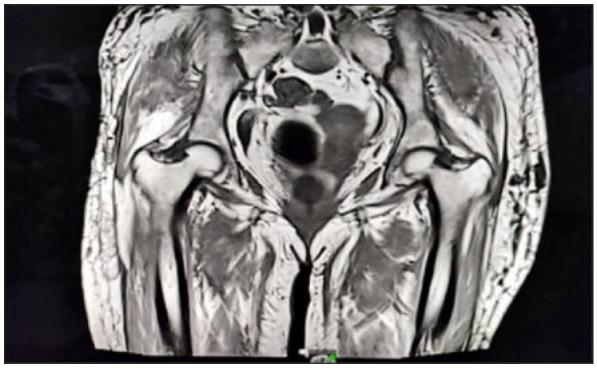

Figure3:-T1 CORONAL IMAGE:Multiple hypointense areas of calcification noted in subcutaneous plane and along the skin over lateral and posterior aspect of pelvis & lateral aspect of thigh.

MRI Pelvis With Both Thigh Show,

Symmetrical hyperintense intramuscular edema is noted in bilateral glutei muscles and muscles of anterior compartment of thigh on both sides.

Multiple hypointense areas of calcification noted in subcutaneous plane and along the skin over lateral and posterior aspects of pelvis & lateral aspect of thigh on either side.

Hyperintensity is noted in anterior and lateral aspect of pelvis in subcutaneous plane on either side.

Multiple focal skin thickening is noted along the anterior aspect of right thigh and lateral aspect of pelvis on either side.

Mild atrophy of muscles of posterior compartment of thigh on either side.

CONCLUSION

Dermatomyositis is a rare, systemic disease.So far, MRI has been the modality of choice in the diagnostic work-up and monitoring of DM affecting muscles, fasciae, and the subcutis. Continuous developments of MRI and ultrasound are expected to further improve patient management

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