

Case report: MRI of decubital ischemic fasciitis

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Abstract

The MRI findings in a case of decubital ischemic fasciitis located posterolateral to the right greater trochanter, in a 72-year-old woman, are presented. Decubital ischemic fasciitis is an uncommon entity encountered mostly in debilitated, elderly patients, in the deep subcutaneous tissue, at pressure points or bony prominences. It can simulate soft-tissue sarcomas. Recognition of this lesion radiologically is important to prevent unnecessary interventions.

Key words: Decubital ischemic fasciitis; hip; MRI; soft-tissue tumor

Introduction

Decubital ischemic fasciitis is a rare entity occurring mostly in the elderly and in debilitated patients, in the deep subcutaneous tissue, at pressure points or bony prominences.^[1-4] It can simulate a soft-tissue sarcoma clinically and histopathologically.^[1-4] Imaging helps to rule out malignancies and therefore to prevent unnecessary interventions. We would like to highlight the MRI findings of this entity.

Case Report

A 72-year-old woman presented with a palpable mass over the right hip region. She was being treated for Parkinson's disease. Physical examination revealed a 4- to 5-cm, hard, and fixated mass in the right proximal thigh, located posterolateral to the greater trochanter. Radiography of the pelvis was normal. MRI revealed diffuse hyperintense signals on the T2W images [Figures 1A and 1B] consistent

with edema and inflammation, in the muscles and subcutaneous tissues, with prominent, peripheral, and ill-defined enhancement [Figure 2], over an area measuring approximately 4–7 cm², at the level of the greater trochanter. A CT-guided needle biopsy showed coagulative necrosis, hemorrhage, and fibrosis involving the adipose tissue. The capillary and muscular vessels within the lesion also showed fibrinoid necrosis in their walls, without evidence of primary vasculitis [Figure 3]. Scattered reactive fibroblasts with enlarged nuclei were present in or around the necrosis. No neoplastic process was detected. These findings, along with the clinical features, were considered compatible with the diagnosis of ischemic fasciitis (atypical decubital fibroplasia).

Discussion

Decubital ischemic fasciitis, also called atypical decubital fibroplasia, is a distinctive fibroplasia occurring predominantly in the elderly and debilitated patients, confined to bed or wheelchair-bound.^[1-3] The lesions occur in the deep subcutaneous tissue at pressure points or bony prominences. It is a rare condition, and 40 cases have been reported in the literature^[1] until 2009. Ilaslan *et al.* have reported the MRI features of decubital ischemic fasciitis in three patients.^[4]

On MRI, the mass-like area in our patient was isointense compared to muscle on the T1W images, and hyperintense on the T2W images. After administration of gadolinium,

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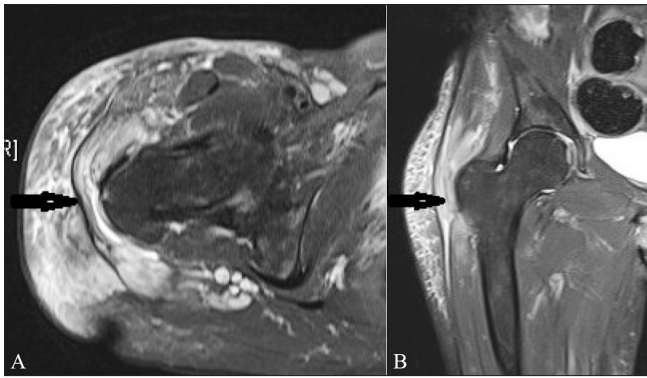


Figure 1 (A,B): Axial (A) and coronal (B) fat-suppressed T2W images show diffuse hyperintense signals (arrows) in the muscles and subcutaneous tissues, adjacent to the right greater trochanter

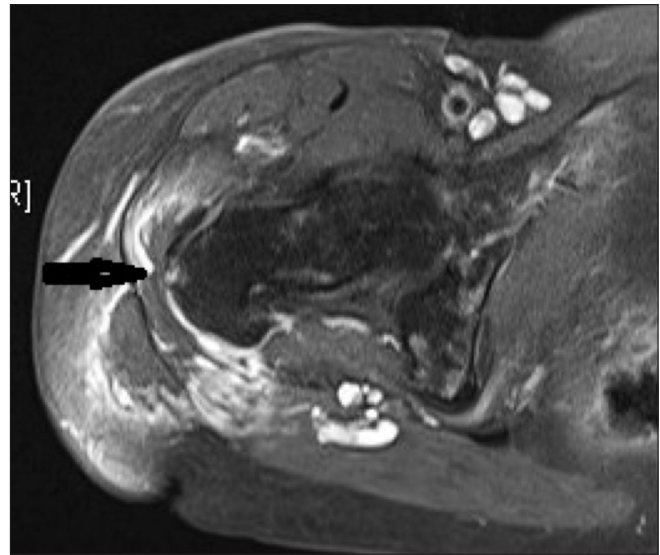


Figure 2: Axial contrast-enhanced T1W, fat-suppressed MRI shows subtle, peripheral enhancement (arrow) in an area measuring approximately 4–7 cm², at the level of the greater trochanter

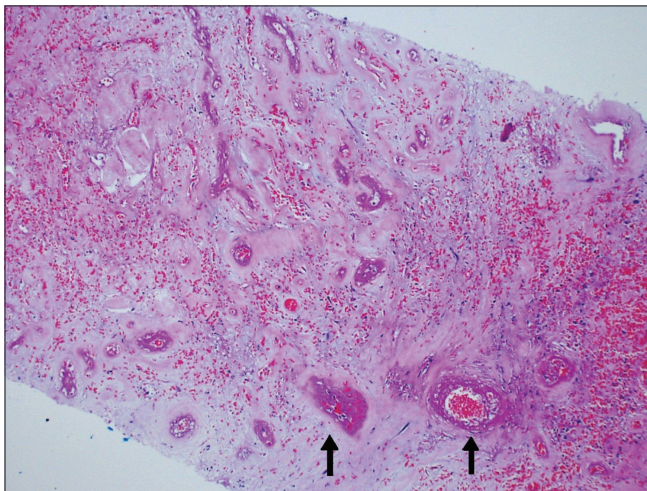


Figure 3: Histopathologic slide (H and E stain) shows coagulative necrosis and hemorrhage with capillary and muscular vessels showing fibrinoid necrosis in their walls (arrows)

subtle and peripheral enhancement was seen in the subcutaneous and muscular tissues. The bone adjacent to the affected soft tissue (greater trochanter) was not involved. Lesions occurring in the shoulder, sacral area, posterior chest wall, and vulvovagina have been reported.^[5]

The diagnosis of decubital ischemic fasciitis with typical findings on MRI prevents the already debilitated patient from undergoing further and unnecessary interventions. Consideration of this entity by the clinician and the radiologist helps the pathologist rule out malignancy. We want to point out that since MRI is a common and

appropriate imaging method used to examine soft-tissue masses, all radiologists, especially those evaluating musculoskeletal MRI examinations, should be aware of this entity and be familiar with the clinical features, common locations, and MRI findings.

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