A case of elastofibroma dorsi: CT and MRI findings

Published on 20.11.2003

DOI: 10.1594/EURORAD/CASE.2518
ISSN: 1563-4086
Section: Musculoskeletal system
Imaging Technique: CT
Imaging Technique: MR
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Case Type: Clinical Cases
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Patient: 49 years, female

Clinical History:

The patient presented with a history of right lower shoulder swelling which had increased gradually over the previous two years. Physical examination showed a mass of soft consistency without tenderness or muscle weakness.

Imaging Findings:

The patient presented with a history of right lower shoulder swelling which had increased gradually over the previous two years.

Physical examination showed a mass of soft consistency without tenderness or muscle weakness.

CT and MRI were subsequently performed. CT imaging showed a heterogeneous large mass with irregular shape and margins, located in the posterior chest wall, mild enhancement after contrast material administration and no calcifications. MRI showed a large mass with fibrous content and partial fat suppression.

Surgical excision was performed and a soft, uncapsulated mass was found. On histological examination, the lesion proved to be elastofibroma dorsi.

Discussion:

Elastofibroma is a benign tumour-like lesion of soft tissue which may develop as a reaction process to mechanical friction. The most common age of appearance is over 55 years with an incidence of 24% in women and 11% in men and with a male-female ratio of 1:2. The posterior chest wall and the inferior margin of the scapula are the most frequent locations. The lesion is bilateral in 15% of cases.

Diagnosis is usually made on the basis of CT or MR images. On CT images, elastofibroma appears as a heterogeneous, poorly defined lesion of soft tissue attenuation similar to muscle. On MR images, elastofibroma is usually disclosed as a well-defined lesion of intermediate-signal intensity with interlaced areas of fat-intensity signal on T1- and T2-weighted images.

Histology of elastofibroma shows enlarged irregular serrated elastic hypereosinophilic fibres, collagen, scattered fibroblasts and occasional lobules of adipose tissue.

With regard to the clinical picture, the lesion is usually asymptomatic and may remain clinically inapparent.
Sometimes, however, clinical symptoms, such as snapping scapula or shoulder pain, may be present.

Elastofibroma should be considered in the differential diagnosis of tumours deeply located within the periscapular area.

**Differential Diagnosis List:** Elastofibroma dorsi

**Final Diagnosis:** Elastofibroma dorsi

**References:**

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Description: Axial MDCT image shows a well-margined heterogeneous mass of 7cm in diameter. The attenuation is similar to that of muscles. Origin:
Description: Axial MDCT image shows a well-marginated heterogeneous mass of 7cm in diameter. The attenuation is similar to that of muscles. Origin:
Description: Axial T2-weighted image shows a heterogeneous mass of 7cm in diameter, well marginated, with predominantly low signal intensity. Origin:
Description: Coronal T2-weighted image shows a heterogeneous mass, with predominantly low signal intensity. Origin:
**Description:** Axial T1-weighted image shows a heterogeneous mass (diameter, 7cm), well marginated, with different signal intensities from low to high. **Origin:**
Description: Axial fat-suppression T1-weighted image shows a heterogeneous mass (diameter, 7cm) with predominant low signal intensity, a finding consistent with the presence of fat. Origin:
Figure 5

Description: Histological findings. Origin: