

Bilateral Elastofibroma Dorsi

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وَرَمٌ لَيْفِيٌّ مَرْتَبِعِيٌّ ظَهْرِيٌّ ثَنَائِيٌّ الْجَانِبِ

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Figure 1: Clinical photograph showing the mass on the back of the left side of the chest wall deep to the angle of scapula. A similar smaller mass is seen on the right side.

THIS IS AN IMAGE OF THE CHEST WALL OF a 57 year-old male, who presented with a painless mass in the left subscapular region of the chest which he had for more than ten years. The mass had recently increased in size causing discomfort when lying down. Examination revealed a mass on the back side of the left chest wall deep to the angle of the scapula which became prominent on abduction of the arm [Figure 1]. The mass was firm, but became hard on shoulder adduction. A similar mass became visible on the right infrascapular region during the abduction of

the right arm, but this mass had not been noticed by the patient. The differential diagnoses considered were intramuscular lipoma, sarcoma, desmoid tumour, fibromuscular tumour besides other soft tissue tumours.

A magnetic resonance (MR) scan of both periscapular regions showed a very well-defined oval soft tissue mass measuring 6 cm in oblique diameter, 2 cm in depth and 9 cm in cranio-caudal length which was located posterolaterally in the left side deep into the serratus anterior muscle and attached to the rib. Another identical mass of

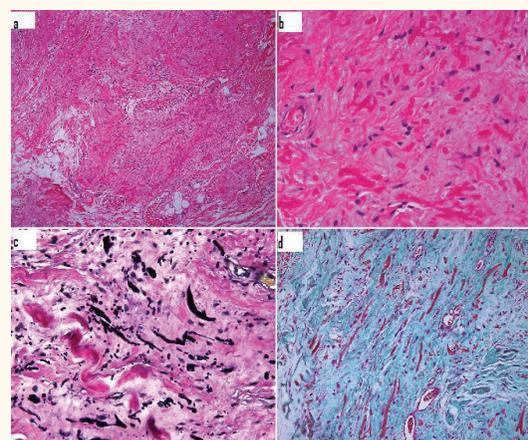


Figure 2: Magnetic resonance scan of both mass with striated appearance and multiple linear septae of alternating high and low signal intensity due to the interlacing of linear streaks of fat.

smaller size was detected on right side. The serratus anterior muscle was displaced laterally, but the ribs and overlying muscle were unaffected. Both masses had a striated appearance with multiple linear septae of alternating high- and low-signal intensity due to interlacing of linear streaks of fat. Both masses showed a significant soft tissue component enhancement [Figure 2]. The diagnosis suggested by MR scan was bilateral fibrolipoma. Core needle biopsy reported fragments of fibrocollagenous and fibroadipose tissue only.

The patient underwent complete excision of both the masses. Grossly, the tumours were firm non-encapsulated, firmly adherent to the scapula and ribs, the left one 10 x 6 x 3 cm and the right one 7 x 5 x 2 cm in size. Microscopically, both lesions were ill-defined and non-encapsulated comprised of adipose tissue, blood vessels and fibroconnective tissues. Thick eosinophilic fragmented material was present within areas of connective tissues of fragmented elastic fibres [Figure 3], and scattered fibrillar material with staining affinity similar to elastic fibres (so called elastofibroma fibres).

Elastofibroma dorsi [EFD] is a slow growing benign lesion of unknown pathogenesis. It is most commonly seen in the sub-scapular region in elderly women as an ill-defined mass located within the muscles attached to the inferior angle of the scapula.¹ The majority of patients are asymptomatic; rare symptoms include periscapular pain and discomfort, clunking of the scapula or restriction of shoulder movements. The findings in computed tomography (CT) and MR imaging in a typical infra-scapular location are very characteristic to EFD, hence obviating the need for biopsy and surgery



Figures 3A to 3D: Histopathology of both masses showing an ill-defined non-encapsulated lesion comprising of adipose tissue, blood vessels and fibroconnective tissue. There is thick eosinophilic fragmented material within the areas of connective tissue of fragmented elastic fibers. **A:** Haematoxylin and eosin stain, low power; **B:** Haematoxylin and eosin stain, high power; **C:** Elastic Van Gieson stain, **D:** Masson's trichrome stain.

in asymptomatic patients.^{2,3,4} Although only 320 cases have been reported in medical literature, the prevalence of asymptomatic EFD detected by CT scan in elderly populations was 2%.^{1,5} Subclinical cases of small lesions (2–3 cm) have been found in autopsy series in 24% of females and 11% of males older than 55 years.^{1,5} The pathogenesis of this lesion remains unclear; whether these lesions are true neoplastic or reactive pseudotumours is still a controversy.

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