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LETTER TO EDITOR

Bilateral Elastofibroma *dorsi*
Synchronic or sequential surgery?

الورم الليفي المرن الثنائي الظهري
جراحة متزامنة أو متتابعة؟

Sir,

Elastofibroma *dorsi* (ED) is a relatively rare soft-tissue pseudotumour localised in the periscapular area (under the rhomboid and serratus anterior muscles). It has a clinical appearance of a malignant tumor since the lesion is firmly attached to the rib cage.

I would like to highlight the case of a 55-year-old woman with hypertension, coronary disease and platelet inhibitor treatment, who presented with a one-year history of a bilateral subscapular mass causing mild discomfort. She denied recent trauma or weight loss. The physical examination revealed a bilateral subscapular mass [Figure 1]. The right mass was more voluminous (15 x 12 x 15 cm) but the left side was more painful and became prominent on abduction of the arm. Sequential surgery was selected in order to allow free activity of the non-operated shoulder. The left mass was removed through an elective subscapular incision. In surgery, the lesion was evident underneath the *latissimus dorsi* muscle, adhering tenaciously to the deeper planes, but detachable from the overlying muscle plane. Macroscopically, it was not capsulated, rubbery and exhibited gray-white fibrous tissue with interposing small areas of adipose tissue. The lesion was totally excised and the postoperative course was uneventful. Three months later, the patient underwent the contralateral surgery. The postoperative course was marked by a postoperative subscapular seroma and acute lung oedema secondary to a myocardial infarction on the fifth day. Invasive ventilation (six days) and puncture of the seroma led to a successful outcome. Six weeks following surgery, the patient had fully recovered.

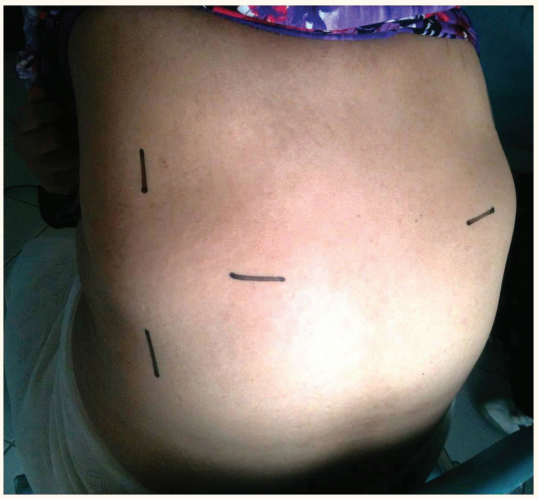

Figure 1: Clinical feature of the bilateral subscapular elastofibroma *dorsi*.

Although the prevalence of bilateral ED reaches 10% in certain series,[1,2] ED is most frequently unilateral. A bilateral occurrence is rare and few cases of bilateral ED were found in a search of the English and French medical literature. ED is usually asymptomatic, but symptoms can include pain, snapping, clicking, or scapular clunking on movement.

On computed tomography (CT) scans, ED is a poorly circumscribed mass, isodense with the surrounding musculature and with characteristic hypodense striations suggestive of dense fat. Magnetic resonance imaging (MRI) which is considered the imaging technique of choice for the diagnosis of ED usually shows clearly a heterogeneous ill-defined lesion with an alternating pattern of fibrous and fatty tissue. On a T1-weighted MRI scan, ED is isointense with the muscle tissue which explains why these tumours are often overlooked. T1- and T2-weighted images both show alternating linear and curvilinear hyperintense areas representing fat. Lastly, on positron-emission tomography/CT images, ED is seen as a non-encapsulated mass with low-grade, diffuse $_{18}$F fluorodeoxyglucose uptake. In the authors' opinion, radiological investigations (ultrasound, CT and MRI) can succeed in clarifying the nature of the lesion since the differential diagnosis is other soft tissue neoplasms, such as fibroma, desmoid tumor, neurofibroma, liposarcoma, haemangioma, or subacute haematoma.

The histological study (haematoxylin and eosin stain) in this case revealed the presence of islets of fatty tissue and a scantly cellular component (fibroblasts and myofibroblasts) associated with intensely eosinophilic

bands composed of collagen and elastic fibres that define this type of lesion. Weigert's elastic stain showed the large branched or unbranched fibres to have a dense core and irregular serrated margins. Although the elastin-like material is removed by prior treatment of the sections with pancreatic elastase, it is more resistant to the digestion than that of unaffected skin.

The treatment of bilateral ED is controversial. Excision may be offered to symptomatic patients. Conservative treatment is recommended in elderly, asymptomatic patients since malignant transformation has not been reported.[3] A preoperative biopsy is not the standard practice in our institute in typical cases. In this case, surgery was indicated sequentially in order to avoid greater patient morbidity; however, the patient had postoperative problems. In the literature, synchronous as well as sequential or unilateral approaches have been used,[4,5] each with a favourable outcome and without relapses. The surgery could have been better synchronised in the current case as in the case reported by Ahmed MA, *et al*.[5] The use of postoperative tube drainage and compression bandages reduces the incidence of complications such haematoma and seroma.

ED is a rare benign condition. The clinical and radiological diagnosis is based on the typical location and very obvious radiological characteristics. Surgery, if indicated, affords good results. Bilateral synchronic or sequential surgery should be undertaken according to the characteristics and needs of the individual patient.

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References

1. Muramatsu K, Ihara K, Hashimoto T, Seto S, Taguchi T. Elastofibroma dorsi: diagnosis and treatment. J Shoulder Elbow Surg 2007; 16:591–5.
2. Turna A, Yilmaz MA, Ürer N, Bedirhan MA, Gürses A. Bilateral elastofibroma dorsi. Ann Thorac Surg 2002; 73:630–2.
3. Daigeler A, Vogt PM, Busch K, Pennekamp W, Weyhe D, Lehnhardt M, et al. Elastofibroma dorsi--differential diagnosis in chest wall tumours. World J Surg Oncol 2007; 5:15. doi: 10.1186/1477-7819-5-15.
4. Martínez Hernández NJ, Almanzar SF, Obrer AA. Elastofibroma dorsi bilateral: una muy rara presentación para una rara patología. Arch Bronconeumol 2011; 47:536–7. doi: 10.1016/j.arbres.2011.05.010
5. Ahmed MA, Subramanian SK, Al-Hashmi I, Koliyadan SV. Bilateral elastofibroma dorsi. Sultan Qaboos Univ Med J 2011; 11:415–6.