CLINICAL VIGNETTE

An Uncommon Tumor Localized to the Back

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Introduction

One of the potential pitfalls of providing continuity of care to a stable patient population is the need to look at findings not recognized previously with a fresh set of eyes. In that regard, it is helpful to consider the importance of location of signs and symptoms. Pain in the RUQ of the abdomen always reminds us to consider inflammation of the biliary tract. In that regard, we present an unusual case of an older male, with a "new" finding of a circumscribed mass in a characteristic area of both scapulae, who provide to have a surprising diagnosis, although present where the majority of such tumors are generally found.

Case Report

The patient is a 72-year-old male, who is physically active, and enjoys water sports, especially kayaking and kiteboarding. About 2-3 months prior to presentation, he noted some "popping and cracking" of his left shoulder and started physical therapy without improvement. On physical exam, careful inspection noted subtle, swelling of the bilateral periscapular areas, L>R. He denied cough, shortness of breath, fever, chills, weight loss, night sweats, loss of appetite, numbness, weakness, falls or trauma. He noted occasional pain at the scapulae, and shoulders after about three hours of kayaking. He also reported some increased joint soreness occurring about the same time, and he was evaluated by Rheumatology with no specific diagnosis.

Due to his greater than 50 pack-year smoking history, an MRI of the chest wall was obtained. It showed a right, ill-defined mass measuring 7.3 x 2.5 cm, deep to the serratus anterior and latissimus dorsi muscles. A similar mass measuring 7.0 x 2.1 cm (transverse by AP) was noted on the left. These findings were consistent with bilateral elastofibroma dorsi. In addition, there was a feathery increased signal within the subscapularis muscle belly on the left with associated reactive enhancement. These later findings were non-specific but possibly related to mechanical irritation. The surrounding osseous structures were normal without involvement or signs of lung cancer.

The patient was referred to orthopedic oncology, who agreed with the diagnosis and recommended a biopsy versus observation with close follow-up. The patient opted for surgery in the near future.

Discussion

Elastofibroma dorsi is an uncommon benign soft tissue pseudotumor, usually located at the lower pole of the scapula, deep to the serratus anterior muscle and often attached to the periosteum of the ribs, generally presenting with prolonged swelling and occasional discomfort in elderly patients.[1]

Clinical presentation is consistent with a generally slow growing tumor in the region of the inferior angle of the scapula. Frequently, MRI or CT reveals bilateral lesions, virtually assuring the diagnosis.[2] If the lesion is unilateral and enhanced by Gadolinium, it is difficult to exclude a soft tissue sarcoma, and need for biopsy. These tumors are very rare, and one major orthopedic center reported only fifteen cases in over twenty years.[3]

Pathologists consider elastofibroma dorsi as a pseudo-tumor or tumor-like growth. In a series of 170 patients from Okinawa, there was a genetic predisposition in 32% of the 170 patients.[4] Large series, suggests a preponderance of females, although smaller series report a male tendency. These lesions are rarely seen in other sites, including the axilla, ischia tuberosity, greater trochanter, posterior elbow, stomach, rectum, omentum, eye, hand and foot.[5] Elastofibromas typically occur after the fifth decade, with the average age of diagnosis nearly 69 years. Lesions are typically larger than 5 cm in diameter. Many times the clinical and radiological picture is so characteristic that biopsy or excision is not performed. If surgery is performed, marginal excision is usually accomplished with minimal morbidity.

Conclusion

In our patient's case, the presence of a distinct new finding in a classic, but unusual location, lead to the diagnosis while also ruling out smoking related pathology.

REFERENCES

1. **Chandrasekar CR, Grimer RJ, Carter SR, Tillman RM, Abudu A, Davies AM, Sumathi VP**. Elastofibroma dorsi: an uncommon benign pseudotumour. *Sarcoma*. 2008;2008:756565. doi: 10.1155/2008/756565. PubMed PMID: 18382611; PubMed Central PMCID: PMC 2276598.
2. **Naylor MF, Nascimento AG, Sherrick AD, McLeod RA**. Elastofibroma dorsi: radiologic findings in 12

patients. *AJR Am J Roentgenol*. 1996 Sep;167(3):683-7. PubMed PMID: 8751681.
3. **Hoffman JK, Klein MH, McInerney VK**. Bilateral elastofibroma: a case report and review of the literature. *Clin Orthop Relat Res*. 1996 Apr;(325):245-50. Review. PubMed PMID: 8998883.
4. **Nagamine N, Nohara Y, Ito E**. Elastofibroma in Okinawa. A clinicopathologic study of 170 cases. *Cancer*. 1982 Nov 1;50(9):1794-805. PubMed PMID: 7116305.
5. **Kapff PD, Hocken DB, Simpson RH**. Elastofibroma of the hand. *J Bone Joint Surg Br*. 1987 May;69(3):468-9. PubMed PMID: 3584204.

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