CLINICAL IMAGES

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Sternoclavicular hyperostosis

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CASE REPORT

Our patient was a 48-year-old white female with a several month history of a non-enlarging, mildly tender 3×3 cm mass of the medial clavicle and sternum (Figure 1). She had a history of moderately controlled hypertension and poorly controlled hypertriglyceridemia. Medications included: lisinopril 20 mg, hydrochlorothiazide 12.5 mg and fenofibrate 145 mg daily. Tramadol 50 mg every eight hours was used for pain as needed. There was no history of trauma, erythema, fever, skin lesions or any other bone pain. Physical examination confirmed a solid mass with minimal tenderness and no lymphadenopathy of cervical, axillary or inguinal regions. A magnetic resonance imaging study demonstrated no signs of infection or tumor but there was ossification of the sternocostoclavicular ligaments with loss of the inferior margin of the clavicle. Laboratory studies were normal including complete blood counts, complete metabolic profile, serum and urine protein electrophoresis, quantitative immunoglobulins and an erythrocyte sedimentation rate. Based on the classic findings on exam, with negative laboratory studies, classic imaging without infection or tumor the diagnosis of sternoclavicular hyperostosis was suggested. Follow-up to date has demonstrated no changes in size or symptoms.

Figure 1: Evidence of bony overgrowth of the sternoclavicular joint on the left (See Arrow).

DISCUSSION

Sternoclavicular hyperostosis is described as bony overgrowth with soft tissue ossification of the medial clavicle, upper ribs, and sternum [1]. It occurs in both sexes with a broad age range from 11 to 88 years. In a review of 251 cases 139 were Japanese and 114 Caucasian [2]. The most common symptom is pain and while the etiology is unknown, SH usually starts with nonspecific inflammation of the sternoclavicular ligaments which may lead to chronic inflammation with progressive hyperostosis and soft tissue ossification. The differential includes osteitis condensans, aseptic necrosis, Tietze's syndrome, osteoarthritis, spontaneous subluxation, osteomyelitis and tumors such as osteosarcoma, metastatic breast and prostate cancer, thyroid cancer or extension from a Pancoast tumor of the lung. Biopsy is planned if further enlargement occurs. Approximately 50% of patients with SH have skin lesions such as palmoplantar pustulosis, pustular psoriasis, hidradenitis suppurativa and psoriasis vulgaris [3]. Patient's may be treated with non-steroidal anti-inflammatory drugs (NSAID's) for relief if needed. Progression can be monitored over time for increased size or symptoms that may justify biopsy or repeat imaging.

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CONCLUSION

Sternoclavicular hyperostosis Sternoclavicular hyperostosis is a relatively rarely described process in literature. It is important to recognize this process as a low likelihood of cancer and infection given the patient's presentation, therefore, avoiding an extensive work-up. However, if further growth occurs over time then a biopsy via a fine needle aspiration of the lesion may be warranted along with additional imaging.

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Michael T Flannery – Substantial contributions to conception and design, Acquisition of data, Analysis and interpretation of data, Drafting the article, Revising it critically for important intellectual content, Final approval of the version to be published

Kara F Villarreal AA – Analysis and interpretation of data, Drafting the article, Revising it critically for important intellectual content, Final approval of the version to be published

Guarantor

The corresponding author is the guarantor of submission.

Conflict of Interest

Authors declare no conflict of interest.

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