

Accessory cervical rib in palpable supraclavicular mass

Accessory cervical rib

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Abstract

Swelling in the supraclavicular region often raises suspicion and requires prompt diagnosis in order to rule out malignancy or infection. When neither are present, however, the differential diagnosis can be broad. The cervical accessory rib is generally asymptomatic, but it can also present with symptoms related to neurovascular impingement. In this report, we clinically and radiologically present a case of newly identified stiffness and asymmetrical swelling in the neck that presented to our clinic.

Keywords

Accessory Cervical Rib, Supraclavicular Mass, Swelling

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Introduction

Swelling in the supraclavicular fossa often raises suspicion in the clinical setting as it is usually a finding secondary to an underlying disease. Pathologies to be considered include lymphadenopathy due to underlying infection, branchial cleft cysts, thoracic duct cyst, and tumors that are benign or malignant in nature [1]. An accessory cervical rib may also present with a supraclavicular swelling in a clinical setting and should be included in the differential diagnosis. A thorough physical examination and a proper radiological evaluation are necessary to diagnose accessory cervical ribs.

Case Report

A 45-year-old male patient presented to our clinic with a newly identified left supraclavicular mass (Figure 1). In the physical examination, asymmetric fullness and non-pulsatile palpable mass were observed in the left supraclavicular region compared with the right side. The rest of the physical examination was unremarkable. Cervical lymphadenopathy was not palpable.



Figure 1. Left supraclavicular mass in a 45-year-old patient.



Figure 2. Accessory cervical rib in the cervical spine.

The preliminary diagnosis, in this case, was malignant lymphadenopathy, given the nature of the supraclavicular mass as being non-mobile, hard consistency, and new in occurrence. The laboratory work-up was within normal limits. An ultrasound of the neck did not show any nodules in the thyroid or any other thyroid pathology. However, a linear osseous structure with a sonographic characteristic of posterior acoustic shadowing was observed in the posterosuperior region left clavicle extending towards the medial side. Aside from this, no other pathology was observed in the bilateral cervical lymph nodes. A cervical spine X-ray was taken due to the calcified nature of the lesion. An antero-posterior (AP) X-ray view of the cervical spine showed a left accessory cervical rib (Figure 2).

No other calcified lesion was detected in the neck region. Given the clinical and radiological features, this supraclavicular swelling was diagnosed as an accessory cervical rib. The case did not include any other symptom besides swelling in the left supraclavicular region, therefore, no treatment was offered and follow-up was recommended.

Discussion

The cervical accessory rib is usually a clinical situation when the transverse process of the C7 vertebrae elongates. Even though it has an incidence of 0.5-2.5% in the population, it is usually asymptomatic [2]. It has a higher tendency to be bilateral, although it can be unilateral like in our case. Patients usually present with symptoms due to the impingement of neurovascular structures (as observed in thoracic outlet syndrome), and these include, ipsilateral upper extremity sensory loss, tingling sensation, numbness, and loss of strength. However, they can also present with a newly identified, non-pulsatile, stiff, non-mobile swelling similar to that observed in our case. In this case, malignancy must be ruled out, especially in the elderly. In this case report, we hypothesized a malignant supraclavicular lymphadenopathy and after going through a thorough laboratory and radiological evaluation, we came to a conclusion of an accessory cervical rib finding.

When diagnosing an accessory cervical rib, radiological tests are an important aspect to consider aside from clinical evaluation and physical examination. Diagnosis can be established with a simple AP X-ray of the cervical spine [3,4]. In symptomatic patients, medical and surgical treatment can be administered according to the severity of the symptoms. No treatment is necessary in asymptomatic cases. Those with minor symptoms can benefit from non-steroidal anti-inflammatory drugs (NSAIDs). Severe symptoms may require surgical decompression through transaxillary, supraclavicular, and posterior subscapular routes [5].

Conclusion

After ruling out a malignant lymphadenopathy, the accessory cervical rib should be included in the differential diagnosis in patients with unilateral, non-mobile, asymmetric, stiff swelling. Treatment modalities differ according to the severity of the symptoms, but the definitive treatment is surgical excision.

Scientific Responsibility Statement

The authors declare that they are responsible for the article's scientific content including study design, data collection, analysis and interpretation, writing, some of the main line, or all of the preparation and scientific review of the contents and approval of the final version of the article.

Animal and human rights statement

All procedures performed in this study were in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards. No animal or human studies were carried out by the authors for this article.

Conflict of interest

None of the authors received any type of financial support that could be considered potential conflict of interest regarding the manuscript or its submission.

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