CERVICAL CHONDROCUTANEOUS BRANCHIAL REMNANT.

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Cervical chondrocutaneous branchial remnants (CCBR) are congenital, benign and uncommon neck lesions. These entities are limited in the literature. [1, 2] CCBR is always present at birth, and the mass is usually seen on the lateral neck [1]. It is similar in appearance to preauricular tags, which are more common. Bilateral appearance of CCBR is very rare. [1, 3] Understanding and treatment of cervical chondrocutaneous branchial remnants requires knowledge of the related embryology.

We report the case of a 7 years-old girl presented to our institution with an asymptomatic unilateral left sided neck lesion since birth, with no discharge nor any change in size or shape. No other associated anomalies were noticed.

On physical examination, the lesion was located on the lower third of the left side of the patient's neck and measuring about 1.4 cm in diameter. The nodule was firm in consistency and pediculated. It was skin-colored, showing no signs of inflammation or fistulisation, unattached to the underlying tissue and mobile in every direction. No other similar swelling were found on examination of the rest of the body. Complete surgical excision was performed and the nodule was submitted for histopathological examination.

The lesion measured 1.2 x 0.8 x 0.6 cm. The sections of the formalin-fixed, paraffin-embedded tissue revealed a polyoid mass surfaced by a normal skin, with foci and islands of mature hyaline cartilage and surrounding subcutaneous tissue. The subcutaneous tissue contained normal skin adnexa including hair follicles, pilosebaceous units, and eccrine glands. The overlying epidermis and subcutaneous fat were unremarkable. There was no evidence of malignancy. The diagnosis of Cervical chondrocutaneous branchial remnant was established.

A follow-up visit done 10 months postoperatively revealed a patient with no complications or clinical evidence of recurrence.

Cervical chondrocutaneous branchial remnants are rare, benign anomalies, first reported in 1858. To date, about 104 cases have been reported, 28 with bilateral lesions [1-4]. The lesions are present at birth and exhibit no or very slow growth. They are typically located in the middle or lower third of the neck, anterior to or over the sternocleidomastoid muscle. The lesions consist of normal skin with a cartilage core. No connection to underlying deep structures has been reported, but adherence to the fascia of the sternocleidomastoid muscle is often reported [1, 2, 5]. There have been no reports of underlying sinuses or cysts. Histologically, CCBRs are defined as a choristoma, which is a mass of tissue that is histologically normal for an organ or a tissue but foreign to the tissue or site at which it is located [5, 6]. The pathogenesis of CCBRs is controversial. The presence of elastic cartilage may suggest an auricular origin (from the first or second branchial arch), whereas the presence of hyaline cartilage excludes an auricular origin and suggest a cervical origin (from the second or lower branchial arches) [1, 5-7].

Since CCBRs can be seen in some rare syndromes and associated anomalies have been reported in up to 76%, a thorough physical examination and ultrasound study of the abdomen and heart are recommended [1, 2, 5]. Simple surgical excision is the treatment modality of choice [1, 4]. It allows to make the exact and correct histopathological diagnosis.
A. Unilateral (left) pediculated skin lesion on the neck.

B & C. Microphotography showing the cartilage islands beneath the skin epidermis and adipose tissue. Hair follicles are also evident.

D. Mature hyaline cartilage.

REFERENCES: