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CASE REPORT

Cervical chondrocutaneous branchial remnant: a case report

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Abstract:

Cervical chondrocutaneous branchial remnants are rare lesions which are encountered at the lateral neck. The lesions always present at birth, and are located in the middle or lower third of the lateral neck with a significant prevalence of location anterior to the sternocleidomastoid muscle. The overlying skin is similar to the surrounding neck skin and the lesion is painless, lacking any inflammation or discharge. Simple surgical excision is all that is required for treatment. We herein report a case of patient with unilateral chondrocutaneous remnant.

Keywords: Chondrocutaneous Branchial Remnant, Neck; Excision

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Introduction

During the last century pure chondrocutaneous rests in the lower-neck region received many different names. This confusion concerning these anomalies was due most probably to the fact that the origin of these anomalies was poorly understood. With further investigation into this group of anomalies it was decided upon the term choristoma. Choristoma is the pathohistological term for a developmental tumor-like anomaly consisting of tissues foreign to the site at which it is located. There are several descriptions of these congenital anomalies including the oral cavity, nasopharynx, middle ear and eye region in the head and neck. [1-4]. In 1997 Atlan et al. described their findings in 20 retrospective evaluated cases of ‘cervical skin tags’ and suggested the term ‘chondrocutaneous branchial remnants’ in order to adopt a clear, widely acceptable name for these malformation [5]. We report another case of chondrocutaneous branchial remnant of the neck in a 8-year-old girl.

Case Report

An 8-year-old girl presented to the clinic with painless, pediculated mass in the lower neck anterior to the sternocleidomastoid (Figure 1). The lesion had a firm but

elastic consistency and was mobile in relation to its underlying structures. No signs of inflammation or infection were noted upon palpation. The mother stated that these masses were noted directly after birth and have not grown since. General physical examination was otherwise normal. The patient consulted to pediatrician and there were no systemic anomalies such as cardiac or urogenital. Surgical removal of tumor-like lesion under general anaesthesia was arranged at our department. The lesion extended into the neck and connected to the fascia at the anterior part of sternocleidomastoid muscle.(Figure 2) The histological examination confirmed ectopic hyaline cartilage remnants, measuring 25 mm x 5 mm x 6 mm.(Figure 3) It was surrounded by adipose tissue, exocrine glands and hair follicles. The overlying epidermis was normal and intact. No indications for malignancy were found. Follow up after 24 months showed no signs of recurrence.

Discussion

A choristoma 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 [6]. Cervical chondrocutaneous branchial remnants are a kind of choristoma in the head

and neck region. Most reports agree that their origin seems to be either the first, or more likely the second, branchial arch.[5] Six auricular hillocks appear on the first and second pharyngeal arches in the sixth week. During the seventh week the auricular hillocks start to enlarge and differentiate. The auricle starts to translocate from its initial ventral position on the lower side of the lateral neck to its ultimate lateral cranial destination. During this migration it follows the anterior border of the sternocleidomastoid muscle.[7] They are believed to be remnants of auricular hillocks during their migration to their final position. This theory is supported by the presence of an elastic cartilage core on histologic examination of the lesions.[8].



Figure 1. Unilateral pedunculated tumor in the lower left half of the neck.



Figure 2. The tumour connected to the fascia at the anterior part of sternocleidomastoid muscle

The lesions always present at birth, and are located in the middle or lower third of the lateral neck with a significant prevalence of location anterior to the sternocleidomastoid muscle. [8] They are painless, and usually show no signs of inflammation, discharge. In 1997, Atlan et al reported

17 cases of cases of 'cervical skin tags' and suggested to term this entity 'cervical chondrocutaneous branchial remnants'. In his series there was shown to be a male predominance, most anomalies were unilateral, all remnants had a cartilaginous core and most patients exhibited associated anomalies [5] Also, he stated that the average age of surgery was 12.8 months. Systemic anomalies such as cardiac malformations have been described in around 76% of patients with unilateral lesions but never with bilateral ones [8] Thus these patients must be evaluated carefully in order to detect any additional anomaly. In our cases, there were no systemic anomalies. To date, less than 40 cases have been reported in the medical literature, and only 8 cases were bilateral [9].

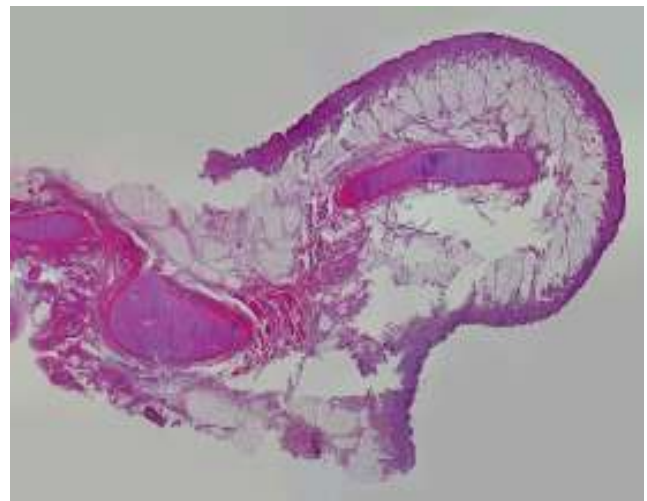


Figure 3. Hair follicles, eccrine glands, adipose tissue and cartilage are seen beneath the level of the normal epidermis. (H&E&400)

We report a case of an 8-old girl presenting with unilateral neck lesions since birth, with no other anomalies. Histologically, these lesions consist of an elastic cartilage core covered by keratinizing squamous epithelium with skin appendages. Atlan et al suggested that the surgical treatment of these remnants is a simple excision, which was done in our case and proved sufficient.[5] On the other hand, Ozturk and Coras warned against simply shaving off the remnants and recommended that they should be excised at their base as completely as possible, searching for any possible deep extension.[8,10]

In conclusion; although simple surgical excision of cervical chondrocutaneous branchial remnants is sufficient, a complete physical examination of the patient is recommended because a cervical chondrocutaneous branchial remnant has proven in many cases to be a visible "marker" for more serious associated anomalies.

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