Multiple cutaneous bronchogenic cysts located on the neck and the scalp. A case report

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SUMMARY

Bronchogenic cyst is a benign congenital developmental abnormality of the embryonic foregut. The skin is a rare site for bronchogenic cysts, and in this location it is often a solitary lesion. It is poorly recognized by clinicians and in almost all cases the diagnosis is established by histopathologic examination. This report documents a new case of multiple cutaneous bronchogenic cysts bilaterally located on the neck and on the scalp, which are unusual locations of this lesion.

KEY WORDS

cutaneous bronchogenic cyst

Introduction

Bronchogenic cysts are rare benign congenital developmental abnormalities of the embryonic foregut, which may be found in children or adults. The most common locations are intrathoracic and the posterior mediastinum. The skin is a rare site for bronchogenic cyst, and in this location it is often a solitary lesion. The majority of cervical bronchogenic cysts are diagnosed in the pediatric population; these lesions are rare in adults. We report a new case of multiple cutaneous bronchogenic cysts (CBCs) located on the neck and scalp in an adult female patient.

Case report

A 21-year-old woman with a past medical history of recurrent otitis since early childhood and an imperforate left lacrimonasal duct presented with congenital multiple, painless red lesions bilaterally distributed on the lateral sides of the neck from which she sometimes noted spontaneous exudation of cloudy fluid. Clinical examination showed multiple red papules 0.7 to 1 cm in diameter, bilaterally and linearly disposed on the lateral sides of the neck (Fig. 1) associated with a draining orifice behind the right ear (Fig. 2). There was also a painless, flaccid mass 4 cm in diameter, with a cystic consistency, situated on the scalp (Fig. 3). This mass had been excised one year previously but recurred rapidly, only one week later.

Histological examination of a skin biopsy, of both neck and scalp lesions, showed a cystic cavity open at the level of epidermis, lined by ciliated pseudo-stratified columnar epithelial cells interspersed with goblet cells. This aspect of respiratory epithelium led to the diagnosis of a cutaneous bronchogenic cyst. In consi-

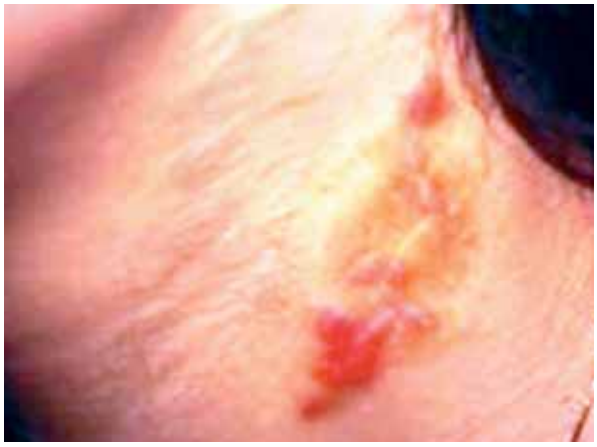

Figure 1: Red papules on the lateral sides of the neck.

deration of the recurrent otitis and imperforate lacrimonasal duct, other facial, auricular, and thoracic deformities were eliminated by skull radiography, facial CT scan, MRI of the brain, thoracic radiography, and abdominal and thoracic ultrasound imaging. Treatment was confined to a surgical excision of the scalp mass and neck lesions.

Discussion

Cutaneous bronchogenic cyst (CBC) is a rare and usually solitary lesion that is four times more common in males than in females (1). It is noted shortly after birth or in early childhood as asymptomatic nodules slowly increasing in size that eventually drain mucoid fluid, as noted in our patient. The most common location is the suprasternal notch (1), followed by the presternal area, the neck, and more rarely the scapular area (2, 3). Unusual localizations (chin (4) abdominal wall (5)) have been described but, to our knowledge, multiple and bilateral lesions localized on the neck and the scalp, as seen in our patient, have not been reported previously.

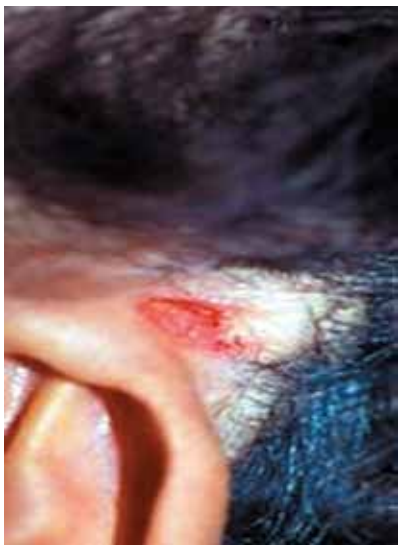

Figure 2: Draining sinus behind the right ear.

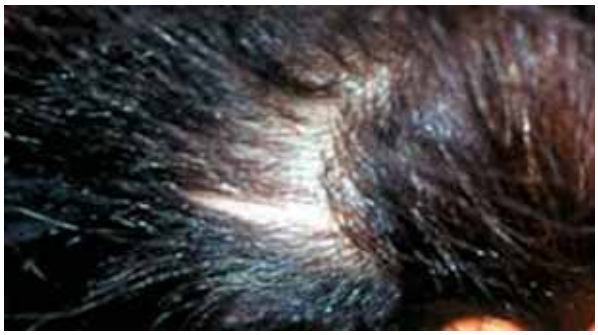

Figure 3: The scalp mass.

Generally, CBC is poorly recognized by clinicians because of the lack of pathognomonic clinical symptoms. In such cases histological findings are crucial to distinguish this lesion from branchial cyst, thyroglossal duct cyst, cutaneous ciliated cyst, dermoid cyst, infundibular cyst, and trichilemmal cyst (1, 2).

The characteristic histologic findings are a ciliated pseudo-stratified epithelial respiratory-type lining with the presence of goblet cells. Smooth muscles and cartilage may also be present (1, 2, 4).

Pathogenesis appears to be related to embryological development alterations that cause distant migration of cells recruited from the bronchial tree (1, 4, 6).

Complete excision and histological examination are indicated in most instances to confirm the diagnosis, to relieve symptoms, and to prevent infection, along with careful follow-up because the cyst may recur even after resection, as noted for the scalp lesion in our patient.

There are only few reports of cases in which malignancy has arisen from a congenital bronchogenic cyst in adults. These include mucoepidermoid carcinoma, adenocarcinoma (7, 8, 9), and even one case of melanoma (10), emphasizing the importance of its total surgical excision.

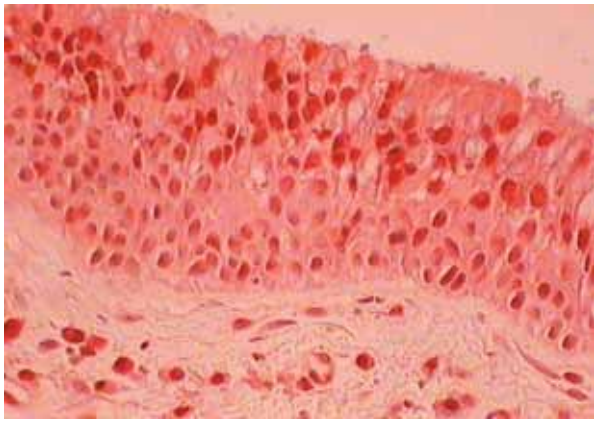

Figure 4: Ciliated pseudo-stratified respiratory-type epithelium.

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