A lesion with mucoid discharge in the neck

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A 25-year-old woman referred to our department with a lesion in the anterior part of her neck (Figure 1) since childhood. She complained of a clear discharge from the lesion which increased with pressure. Two years ago, the lesion was treated with electrosurgery but relapsed a few months later.

Examination revealed an erythematous papule in the anterior-inferior part of the neck with a clear mucoid discharge from its orifice upon pressure. Physical exam was otherwise normal.

The patient had no other medical problems. She had never taken any medications. There was no family history of a similar problem. We advised the patient to be visited for excisional biopsy of the lesion.

What is your diagnosis?

Move on the next page for the answer and discussion.

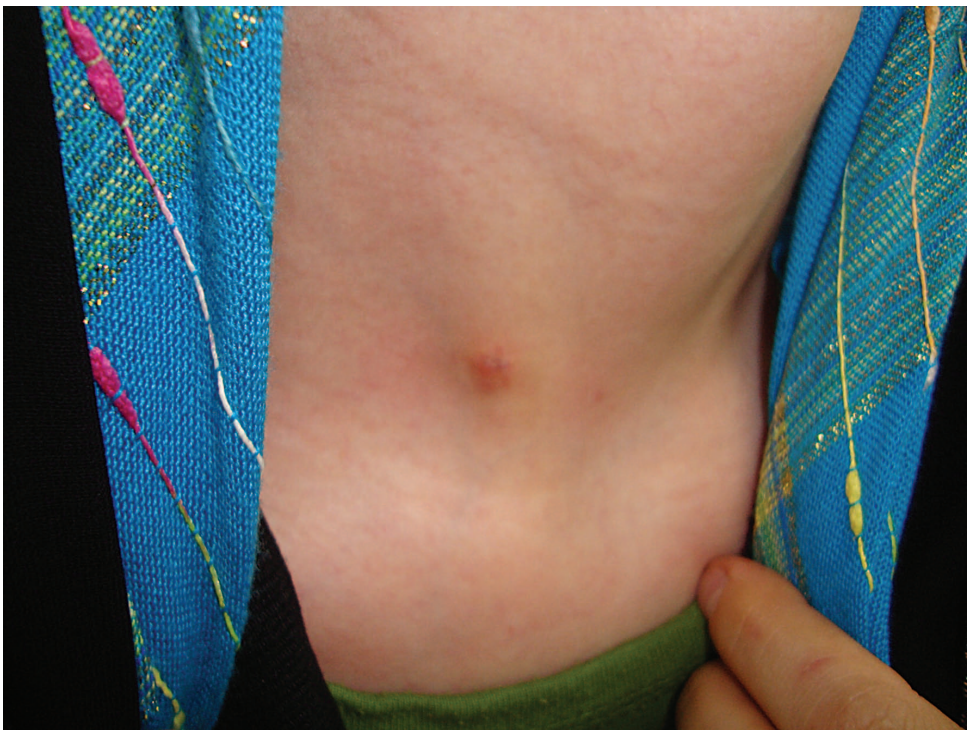

Figure 1. Erythematous papule in the anterior-inferior part of the neck with a clear mucoid discharge from its orifice upon pressure

Diagnosis: Bronchogenic cyst

Histopathologic examination of the lesion showed skin tissue with a cystic-like lesion lined by pseudostratified columnar epithelium with occasional goblet cells in the dermis. There was mild lymphcytic infiltration and mild fibrosis adjacent to the sinus-like lesion (Figure 2).

DISCUSSION

Bronchogenic cysts are rare developmental anomalies that arise from the ventral portion of foregut [1]. Approximately 74% of the cases are males [2]. These cysts occur more commonly in children but have also been reported in adults with a much lower incidence [3,4].

Bronchogenic cysts may be intrathoracic (more common type) or extrathoracic, the latter could be divided into abdominal and cutaneous [5]. The most common locations for cutaneous bronchogenic cysts are the suprasternal notch and manubrium (i.e. cervical region) followed by other cervical areas, scapula, face, tongue, supraclaviclular shoulder, chin, posterior neck and even the scalp [2,6,7].

Most patients are asymptomatic but when complicated, signs and symptoms are often related to pressure of adjacent tissues, and rarely due to an infectious process [4,8]; however, the usual presentation is a soft mobile nodule that enlarges very slowly and may discharge a mucoid fluid [5], as in our case.

Other presentations such as abscess formation, papillomatous nodules, aplasia cutis like appearance, and linear erythematous pruritic hyperkeratotic papules resembling ILVEN (Inflammatory Linear Verrucous Epidermal Nevus) have also been reported [9].

The differential diagnoses include branchial cleft cysts, thyroglossal duct cysts, thymic cysts, lipomas, epidermal cysts, teratomas, dermoid cysts, cystic papillary carcinoma of the thyroid gland, neurogenic tumors, cystic hygromas [2,3,10], and cutaneous adnexal neoplasms. In most cases, the diagnosis is post operative and histologic, because of both non specific presentation and rarity of these lesions. As a result, histologic examination is mandatory and is the method of choice for diagnosis [11,12]. Histologic findings include a ciliated pseudo-stratified epithelium with goblet cells, although stratified squamous epithelium is sometimes present in the outer layer of the cyst.

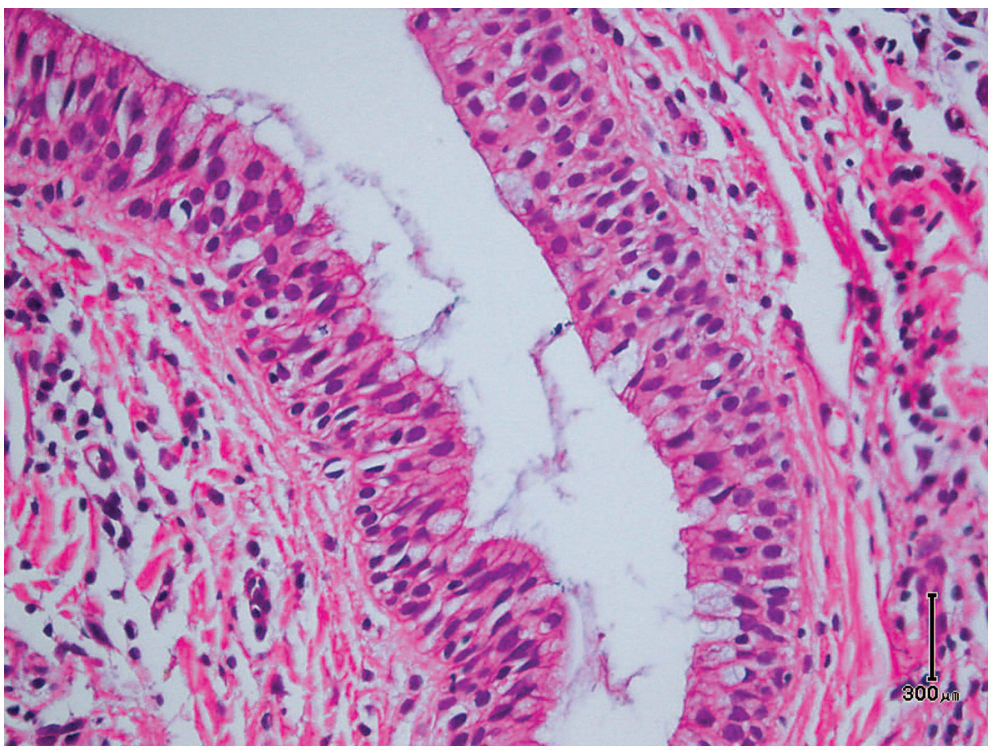

Figure 2. Cystic-like lesion lined by pseudostratified columnar epithelium with occasional goblet cells in the dermis. (H&E*40)

Occasionally, smooth muscles, and cartilage may also be present [8,11,13].

When encountering a nodular or cystic lesion in the cervical region, one should keep in mind the differential diagnoses cited above and, if indicated, perform imaging procedures like MRI, as it is the best non-invasive method to detect a possible fistula or connection to adjacent structures [4] although connection between bronchogenic cysts and trachea or esophagus is quite rare [8].

Management of cutaneous bronchogenic cysts is often surgical because it is both diagnostic and curative in most cases [7], provided the excision is complete. Total extirpation of the lesion is recommended due to some reports of malignant transformation [7,14].

To the best of our knowledge, no more than 85 cases of cutaneous bronchogenic cysts have been reported so far [2]. The main objective of this report was to underline the importance of a high index of suspicion for a dermatologist to include this entity in his/her differential diagnoses when considering a cutaneous mass or nodule in the cervical region.

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