A Rare Congenital Anomaly: Bilateral Cutaneous Bronchogenic Cyst: Case Report

Nadir Bir Konjenital Anomali: Bilateral Kütanöz Bronkojenik Kist

ABSTRACT Cutaneous bronchogenic cyst is a rare developmental anomaly originating from distal tracheobronchial tract. The most common localizations of cutaneous bronchogenic cysts are suprasternal and pre sternal regions. They are rarely are found on the back, neck, shoulder and chin area. In clinical practice, bronchogenic cysts are observed as asymptomatic elevations, which may seldomly be associated with serous discharge. Developmental anomalies such as bronchogenic cysts and other congenital lesions such as branchial cleft cyst, thymic cyst, thyroid cyst, thyroglossal duct cyst, epidermal inclusion cyst and cystic hygroma should be kept in mind in the differential diagnosis of persistent lesions found on the neck area. Here, a patient with bilateral cervical bronchogenic cysts is presented.

Key Words: Bronchogenic cyst; congenital


Anahtar Kelimeler: Bronkojenik kist; konjenital

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Cutaneous bronchogenic cyst is a rare developmental anomaly which originate during the embryologic process of division of the anterior primitive intestine into dorsal and ventral parts leading to a defect in the distal tracheobronchial tract. The most common localizations of cutaneous bronchogenic cysts are suprasternal and pre sternal regions.1 Few cases have been reported in the literature where they were found on the back, neck, shoulder and chin area.2 Here, a patient with bilateral cervical bronchogenic cysts is presented. To our knowledge, this is the first case reported with the cysts bilaterally in this location.
CASE REPORT

A 25-year-old male patient admitted to dermatology outpatient clinic for the lesions on the sides of the neck which were present since birth. The patient defined that the lesions had never disappeared and there had been a clear discharge coming out seldomly. Previously prescribed topical corticosteroid formulations were not efficient. On dermatologic examination; erythematous, thin scaly plaques of 2x1.5 cm were located symmetrically on bilateral sides of the neck with a spontaneous discharge of transparent serous material (Figure 1). The histopathologic examination of the lesion revealed a cyst located in the dermis which was lined with ciliated respiratory epithelium containing Goblet cells. Based on this findings, a diagnosis of cutaneous bronchogenic cyst was made (Figure 2).

FIGURE 1: Bilateral symmetric erythematous plaques with thin scales located on the neck.

FIGURE 2: Dermal cyst covered with ciliated respiratory epithelium containing Goblet cells (H.E., x 20, x 40).
DISCUSSION

Cutaneous bronchogenic cyst is a rare developmental anomaly originating from front/anterior intestine embryologically. During embryonic development, the primitive anterior intestine divides into dorsal and ventral parts. Esophagus originates from the dorsal part where tracheobronchial tree originates from the ventral part. Bronchogenic cysts occur as a result of embryologic errors during this process. The most common localizations of cutaneous bronchogenic cysts are suprasternal and presternal regions. Cysts located on the back, neck, shoulder and chin area have been reported infrequently. In clinical practice, bronchogenic cysts are often observed as asymptomatic elevations, sometimes these may be associated with serous discharge. Histopathologically, cysts are lined with pseudostratified ciliated columnar epithelium with Goblet cells, smooth muscle and cartilage can be observed within the cyst wall rarely. The differential diagnosis of cutaneous bronchial cysts should include branchial cleft cyst, thymic cyst, thyroid cyst, thyroglossal duct cyst, epidermal inclusion cyst and congenital anomalies such as cystic hygroma should be considered. Cutaneous congenital developmental cysts have a tendency to occur at certain regions on the neck (Table 1). Histopathological examination will conclude the diagnosis in clinically indistinguishable cases. Local excision of the lesions will be adequate for the treatment. Cutaneous cyst are rarely known to cause complications such as secondary infections, nevertheless there is a single case reported where recurrent malignant melanoma arose from a cutaneous bronchogenic cyst in the scapular area.

We would like to emphasize that when evaluating localized persistent lesions, developmental anomalies such as bronchogenic cysts and other congenital lesions should be kept in mind in the differential diagnosis.

TABLE 1: Common localizations of cutaneous developmental cysts.1-4

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<thead>
<tr>
<th>Midline and anterior cervical region</th>
<th>Posterior cervical triangle</th>
<th>Submandibular triangle</th>
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</thead>
<tbody>
<tr>
<td>Thyroglossal cyst</td>
<td>Branchial cyst</td>
<td>Cystic hygroma</td>
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<tr>
<td>Dermoid cyst</td>
<td>Thymic cyst</td>
<td>Hemangioma</td>
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<td>Laryngocele</td>
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REFERENCES