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

### Nadir Bir Konjenital Anomali: Bilateral Kütanöz Bronkojenik Kist

Emine Buket KARACA, MD,<sup>a</sup> Sibel DOĞAN, MD,<sup>a</sup> Ayşen KARADUMAN, MD,<sup>a</sup> Özay GÖKÖZ, MD<sup>b</sup>

Departments of 
Dermatology,
Pathology,
Hacettepe University Faculty of Medicine,
Ankara

Geliş Tarihi/*Received:* 25.10.2010 Kabul Tarihi/*Accepted:* 10.12.2010

Yazışma Adresi/Correspondence: Sibel DOĞAN, MD Hacettepe University Faculty of Medicine, Department of Dermatology, Ankara, TÜRKİYE/TURKEY sibel.dogan@hacettepe.edu.tr **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 presternal 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

ÖZET Kutanöz bronkojenik kist trakeobronşial ağacın distalinden köken alan nadir gelişimsel bir anomalidir. Kutanöz bronkojenik kistler için en sık yerleşim yerleri olarak suprasternal ve presternal bölgeler bilinmektedir. Nadiren sırt, boyun, omuz ve çenede yerleşen kutanöz bronkojenik kistlere de rastlanabilmektedir. Klinikte kutanöz bronkojenik kistler nadiren seröz akıntı gözlenebilen asemptomatik eleve papüller şeklinde ortaya çıkarlar. Boyun bölgesinde yer alan sabit özellikte gelişimsel anomalilerin ayırıcı tanısında kutanöz bronkojenik kistler ve brankial yarık kisti, timik kist, tiroid kisti, tiroglossal kanal kisti, epidermal inklüzyon kisti ve kistik higroma gibi diğer konjenital lezyonlar da mutlaka akılda tutulmalıdır. Burada servikal bölgede bilateral yerleşim gösteren bronkojenik kistleri olan bir olgu sunulmaktadır.

Anahtar Kelimeler: Bronkojenik kist; konjenital

Turkiye Klinikleri J Dermatol 2011;21(1):52-4

utaneous bronchogenic cyst is a rare developmental anomaly which originate during the embriyologic 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 presternal regions. Few cases have been reported in the literature where they were found on the back, neck, shoulder and chin area. 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.

Copyright © 2011 by Türkiye Klinikleri

## 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 disappered and there had been a clear discharge coming out seldomly. Previously prescribed topical corticosteroid formulations were not efficient. On derma-

tologic examination; erythematous, thin scaly plaques of 2x1.5 cm were located symetrically 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 plagues with thin scales located on the neck.

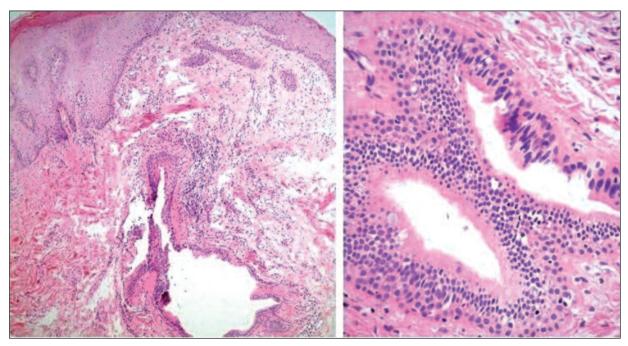


FIGURE 2: Dermal cyst covered with ciliated respiratory epithelium containing Goblet cells (H.E., x 20, x 40).

# DISCUSSION

Cutaneous bronchogenic cyst is a rare developmental anomaly originating from front/anterior intestine embryologically.1 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.3 The most common localizations of cutaneous bronchogenic cysts are suprasternal and presternal regions. 1 Cysts located on the back, neck, shoulder and chin area have been reported infrequently.2 In clinical practice, bronchogenic cysts are often observed as asymptomatic elevations, sometimes these may be associated with serous discharge.4 Histopathologically, cysts are lined with pseudostratified ciliated columnar epithelium with Goblet cells, smooth muscle and cartilage can be observed within the cyst wall rarely. 4,5 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.4 Cutaneous congeni-

TABLE 1: Common localizations of cutaneous developmental cysts. <sup>1-4</sup>			
Midline and			
anterior	Anterior cervical	Posterior	Submandibuler
cervical region	triangle	cervical triangle	triangle
Thyroglossal cyst	Branchial cyst	Lymphangioma	Cystic hygroma
Dermoid cyst	Timic cyst		Hemangioma
	Laryngocele		

tal developmental cysts have a tendency to occur at certain regions on the neck (Table 1). Histopathological examination will conclude the diagnosis in clinically indistinguished 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.<sup>5</sup>

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.

#### REFERENCES

- Pradeep KE. Cutaneous bronchogenic cyst: an under-recognised clinicopathological entity. J Clin Pathol 2009;62(4):384.
- Vlodavsky E, Czernobilsky B, Bar Y, Lifschitz-Mercer B. Gastric mucosa in a bronchogenic cutaneous cyst in a child: case report and review of literature. Am J Dermatopathol
- 2005;27(2):145-7.
- Schouten van der Velden AP, Severijnen RS, Wobbes T. A bronchogenic cyst under the scapula with a fistula on the back. Pediatr Surg Int 2006;22(10):857-60.
- 4. Shah SK, Stayer SE, Hicks MJ, Brandt ML.
- Suprasternal bronchogenic cyst. J Pediatr Surg 2008;43(11):2115-7.
- Tanita M, Kikuchi-Numagami K, Ogoshi K, Suzuki T, Tabata N, Kudoh K, et al. Malignant melanoma arising from cutaneous bronchogenic cyst of the scapular area. J Am Acad Dermatol 2002;46(2 Supple Case Reports):19-21.