

# Bronchogenic Cysts Located in Neck Region: An Uncommon Entity with a Common Reason for Misdiagnosis

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Herein we present a child with a bronchogenic cyst, which was located at the right side of the cervical oesophagus displacing it to the left. At operation we found that the cyst had a common wall with the oesophagus, which was completely excised. Preoperative diagnosis was esophageal duplication, however, histopathological analysis confirmed the diagnosis of bronchogenic cyst. As accurate preliminary diagnosis is difficult in bronchogenic cysts, we assume to have this pathology in mind in the differential diagnosis, presenting at atypical locations in the neck region

*Index Word:* Bronchogenic cyst, neck, sternum.

## INTRODUCTION

ronchogenic cysts are uncommon and rarely **B** occur in the neck and the diagnosis at this region is rarely made preoperatively based on the clinical and radiological investigations 1-5. This benign pathology can also easily be misdiagnosed with the other common cystic lesions of the neck such as thyroglossal, thymic and branchial cysts, cystic higromas esophageal and duplications. histopathological confirmation investigation essential in nearly all cases. This report indicates the importance of identification of this pathology among the differential diagnosis of cystic neck lesions

## **CASE REPORT**

Sixteen year old male child presented with symptoms of cough and recurrent upper airway infections to the outpatient clinic. Thoracic and upper gastrointestinal system radiological examination and cervical MR

revealed a cystic mass located at the right cervical esophagus and displacing it to the left (Figure 1a, b). radiological diagnosis was duplication. The lower part of cyst was at the upper sternum, so the cervical approach was chosen for surgery. At surgery, the cyst wall was found to have a common wall with esophagus mimicking an duplication. esophageal However the histopathological investigation revealed bronchogenic cyst.

#### DISCUSSION

Bronchogenic cysts are benign congenital developmental abnormalities of the embryonic foregut <sup>1</sup> -5. These are intrapulmonary lesions and commonly occur within the thoracic cage, near the bronchial tree as in mediastinum, wall of the oesophagus, or at the pericardium. We recently

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reported a similar case at presternal area <sup>6</sup>. They are also observed outside the thoracic cage, and generally in the neighbourhood of the bronchial tree, such as the sternum, the lowest part of the neck and the shoulders. The most common extrathoracic location is the suprasternal notch, presternal area, neck, and scapula <sup>7-11</sup>.

As bronchogenic cysts rarely affects the neck region and barely about 70 cases of bronchogenic cysts in the head and neck region have been reported in the English literature, it is poorly recognized by clinicians and therefore mostly misdiagnosed <sup>1,3</sup>. In clinical practice the common preoperative diagnosis is thyroglossal, branchial, thymic and dermoid cyst and/or cystic higromas.

From our case and the reports in the literature, we observe that the preoperative diagnosis is mostly missed, and the accurate diagnosis is also difficult even with the intraoperative macroscopic findings. The final diagnosis is usually made with the histopathological examination. The characteristic histological findings are a ciliated pseudostratified epithelial lining with the presence of smooth muscle cells, goblet cells and, less frequently, cartilage <sup>2</sup>. In our case, the cystic wall was lined with partially stratified squamous and respiratory epithelium and there was also lymphoid tissue, smooth muscle, seromucous gland acini and cartilage in the cyst wall , which is in accordance with bronchogenic cyst.

## CONCLUSION

Bronchogenic cyst should be included in the differential diagnosis of congenital cystic and nodular skin lesions located on the upper chest, upper back, and especially neck region .

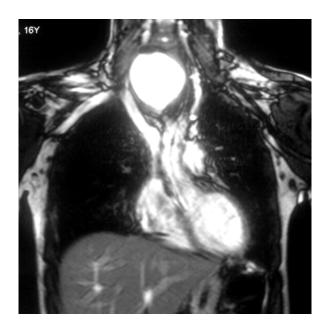


Fig. 1a: MR findings and location of the cyst

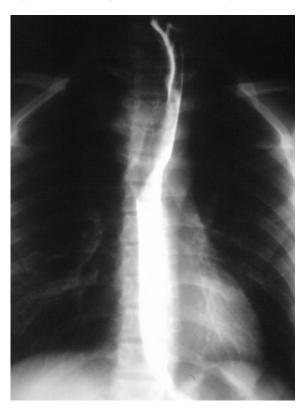


Fig. 1b: Upper GI tract contrast study showing displacement of esophagus to left

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