Case Report

New Indian Journal of Surgery
Volume 14 Number 1/January - March 2023
DOI: https://dx.doi.org/10.21088/nijs.0976.4747.14123.6

A Case Report on Thoracotomy for Left Bronchogenic Cyst Excision

Parth Nilesh Mehta[1], Harish Devjibhai Chauhan[2]

How to cite this article:
Parth Nilesh Mehta, Harish Devjibhai Chauhan/A Case Report on Thoracotomy for Left Bronchogenic Cyst Excision/New Indian J Surg. 2023;14(1):37–39.

Abstract

Bronchogenic cysts are uncommon congenital anomalies of foregut origin usually located within the mediastinum and the lung and rarely diagnosed in adults. Surgical excision is the recommended to establish diagnosis based on histologic examination, alleviate symptoms if present, and prevent future complications. Thoracoscopic approach is becoming the primary therapeutic option.

Keywords: Video-assisted thoracoscopy; Thoracotomy; bronchogenic Cyst; mediastinum.

INTRODUCTION

Bronchogenic cysts are congenital lesions thought to originate from the primitive ventral foregut and may be mediastinal, intrapulmonary, or, less frequently, in the lower neck. Approximately two-thirds are within the mediastinum, and one-third are intraparenchymal.[1,2] They account for 40–50% of all congenital mediastinal cysts, and there is a slight male predominance. The true incidence of bronchogenic cysts is unknown presumably because most patients are asymptomatic. However, once the condition is diagnosed, surgical excision is indicated either to relieve clinical symptoms, or because of enlarging cysts or to prevent possible complications, such as infection, malignant transformation, tracheal compression, superior vena cava syndrome or haemoptysis.[3,4] The complete excision of the cyst is the gold standard and recurrence is extremely rare.

PATIENT AND METHOD

In our case, a 27 year old male patient came to the SMIMER hospital with chief complaints of left sided chest pain and dyspnoea for past two weeks. Patient underwent Chest X-ray with showed ill defined round soft tissue opacity on upper side of lt. lung field. Further patient was advised for CECT THORAX with showed approx, 7.6 * 7.3 * 8.0 cm sized well defined cystic (mean CT HU 30-35) posterior mediastinal lesion. Also MRI LT. THORAX (local part) was done and that suggested a well defined lobulated lesion measuring 88 * 71 mm in apex of left lung extending and abutting the mediastinum. Compression of the adjacent lung parenchyma was present.

Author Affiliation: [1]3rd Year Resident, [2]Professor, Department of General Surgery, SMIMER, Hospital, Umarwapa, Surat-395003, Gujarat, India.

Corresponding Author: Harish Devjibhai Chauhan, Professor, Department of General Surgery, SMIMER, Hospital, Umarwapa, Surat-395003, Gujarat, India.

Email: drharishchauhan@gmail.com

Received on 14-09-2022

Accepted on 28-10-2022

© Red Flower Publication Pvt. Ltd.



Fig. 1: Mri Image of Thorax Showing Cyst in Lt. Lung Upper Lobe.

After double lumen intubation, with the patient in lateral decubitus position, the first trocar was placed usually in the seventh or eight intercostal space, while the remaining two or three trocars were placed after visualization of the cyst. Anterior or posterior rotation of the operative table was helpful in lung retraction and cyst visualization. Cysts were excised with blunt and sharp dissection using hook-electrocautery or endoscopic scissor. Great care was taken to avoid injuries to the phrenic, vagus or laryngeal nerves. Due to much adhesions with the lung, VATS was converted into open thoracotomy to deliver out the cyst. At the end of the procedure, before lung re-expansion one chest tube was placed. Postoperative pain control was assured by intravenous analgesia.



Fig. 3: Gross Image of the Bronchogenic Cyst



Fig. 2: Plain Chest X-Ray Lateral view showing Opacification in Upper Lung field

DISCUSSION

Bronchogenic cysts account for 10–15% of all mediastinal tumors and about 60% of mediastinal cysts. Usually this is a benign condition and some clinicians accept a conservative management with simple observation in asymptomatic patients.[5] Bronchogenic cysts do not initially communicate with the tracheobronchial tree. They usually present as a unilocular, fluid-filled cyst in the middle or posterior mediastinum. Differential diagnosis includes Oesophageal duplication cyst, neuroenteric cyst and congenital cystic adenomatoid malformation.[2] Intrapulmonary bronchogenic cysts are usually located in the lower lobes. The cysts are filled with serous or mucous fluid, so usually appear as water-density mass lesions in chest radiographs. Two-thirds of the patients are symptomatic; symptoms are due to the size and position of the cyst. Symptoms are most frequently caused by compression of the trachea or bronchi, which leads to coughing, wheezing, stridor, dyspnoea, cyanotic spells, and pneumonia. However, most bronchogenic cysts are found incidentally when imaging is performed for other reasons. Surgery is indicated for symptomatic or complicated cyst.

REFERENCES

1. McAdams H.P., Kirejczyk W.M., Rosado de Christenson M.L., Matsumoto S.. Bronchogenic cyst: imaging features with clinical and histopathologic correlation, Radiology, 2000, vol. 56 (pg. 441-446)
2. Winters W.D., Effmann E.L.. Congenital masses of the lung: prenatal and postnatal imaging evaluation, J Thorac Imaging, 2001, vol. 16 (pg. 196-206)
3. Patel S.R., Meeker D.P., Biscotti C.V., Kirby T.J., Rice T.W.. Presentation and management of bronchogenic cysts in the adult, Chest, 1994, vol. 106 (pg. 79-85)
4. Ribet M.E., Copin M.C., Gosselin B.. Bronchogenic cysts of the mediastinum, J Thorac Cardiovasc Surg, 1995, vol. 109 (pg. 1003-1010)
5. Bolton J.W., Shahian D.M.. Asymptomatic bronchogenic cysts: what is the best management?, Ann Thorac Surg, 1993, vol. 53 (pg. 1134-1137)