



## Chronic Loculated Empyema Presented as Diaphragm Herniation of Colon or Colothorax or Boluses Disease

Aghajanzadeh M<sup>1\*</sup>, Foumani AA<sup>2</sup>, Tangestaninejad A<sup>2</sup>, Fakher Mosavi SA<sup>2</sup>, Sadin Z<sup>3</sup>, Mosaffae Rad O<sup>1</sup> and Farzin M<sup>3</sup>

<sup>1</sup>Department of Thoracic Surgery, Guilan University of Medical Sciences, Iran

<sup>2</sup>Department of Pulmonology, Guilan University of Medical Sciences, Iran

<sup>3</sup>Department of Internal Medicine, Inflammatory Lung Diseases Research Center, Razi Hospital, School of Medicine, Guilan University of Medical Sciences, Iran

### Clinical Image

A 72-year-old man presented to the emergency department with chief complaint of cough; exertion dyspnea; low grade fever, abdominal and right-sided chest wall pain for the last one months. Cough in past two week ago was expectoration yellow sputum chest wall pain was localized and responded favorably to analgesics. In her past medical history, there was not any trauma or surgery. She was no smoker. In physical examination; the patient was moderately stable; with a pulse rate of 92 beats/min; a blood pressure of 110/70 mmHg; breath rate was 22 per minutes and an oral temperature of 38°C, O<sub>2</sub> saturation with air room was 90%. But patient have dyspnea and orthopnea in percussion was hyperresonance in the right side of the chest; with normal percussion in the left side. On auscultation; the breathing sounds were absent in the right side of the chest and trachea was deviate to left side. Abdominal had mild tenderness in right side. Chest X-ray on admission revealed air fluid level and a pattern of intestine shadow with shift of trachea and mediastinum to the left side (Figure 1, 2) and suggestive diaphragmatic herniation of colon. We completed our diagnosis process with a chest Computed Tomography (CT) which showed a significant deviation or shifting of mediastinum towards the left side and the entire of right hemi-thoracic field with colon loops with haustrations and air space lesions (Figures 3-5). Abdominal ultrasound was normal. Cardiac echography revealed extrinsic compression of the right atrium and ventricle by loops of colon. The probably diagnosis was colothorax or boluses disease of right lung. The patient was referred to a thoracic surgery ward. A right anterolateral thoracotomy was performed through the 6<sup>th</sup> intercostal space.

During operation and exploration; right lung was totally collapsed and diaphragm was intact. Pleural space was full of debris and fibrinous membrane of empyema, decortication and pleurectomy was performed (Figure 6, 7) and lung was partially expanded. Irrigation of pleural cavity with four liters of normal saline and providing iodine. Chest tube and irrigation drain was put in pleural space and chest wall was closed. Recovery from thoracotomy and surgery in postoperative period was very good postoperative CXR was good (Figure 8, 9) and chest tube was removed on eight-day post-surgery and patient was discharged on the ten-day postoperative with good condition. Histopathological examination confirms of chronic empyema. In six-month, follow-up there was no problem one-month postoperative CXR show full expansion of right lung (Figure 10).

### OPEN ACCESS

#### \*Correspondence:

Manouchehr Aghajanzadeh,  
Department of Thoracic and General  
Surgery, Arya and Razi Hospital,  
Research Center, Guilan University of  
Medical Sciences, Rasht, Iran, Tel: +98-  
91113117;

Received Date: 08 Apr 2024

Accepted Date: 03 May 2024

Published Date: 09 May 2024

#### Citation:

Aghajanzadeh M, Foumani AA,  
Tangestaninejad A, Fakher Mosavi  
SA, Sadin Z, Mosaffae Rad O, et al.  
Chronic Loculated Empyema Presented  
as Diaphragm Herniation of Colon or  
Colothorax or Boluses Disease. *Ann  
Clin Case Rep.* 2024; 9: 2620.

ISSN: 2474-1655.

Copyright © 2024 Aghajanzadeh

M. This is an open access article  
distributed under the Creative  
Commons Attribution License, which  
permits unrestricted use, distribution,  
and reproduction in any medium,  
provided the original work is properly  
cited.

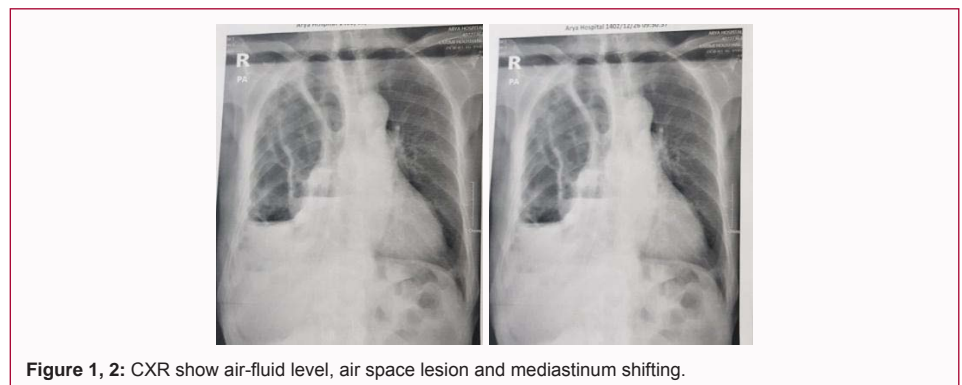


Figure 1, 2: CXR show air-fluid level, air space lesion and mediastinum shifting.



Figure 3, 4, 5: CT-scan of patient show haustration of colon and air space lesions.

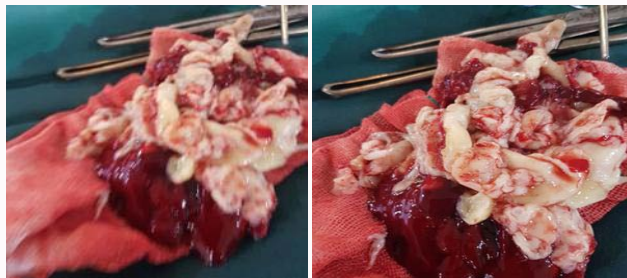


Figure 6, 7: Debris and fibrinous membrane.



Figure 8, 9: Three- and six-day postoperative CXR with full re-expansion of lung.

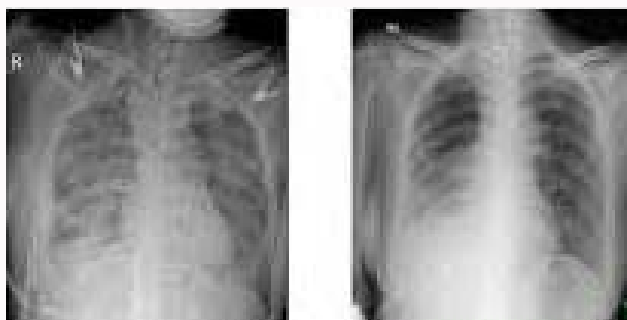


Figure 10: Six months postoperative.