

RESEARCH ARTICLE

A RARE CASE OF DELAYED HEMOPTYSIS 20 YEARS AFTER A BLUNT CHEST TRAUMA

Mouhsin Ibba, Azal Hamza, Razouq Boujemaa, Joel Bayem Cedric, Hicham Fenane and Yassine Msougar Thoracic Surgery Department, University Hospital Mohammed VI, Marrakech, Morocco.

..... Manuscript Info

Abstract

Manuscript History Received: 18 January 2024 Final Accepted: 21 February 2024 Published: March 2024

Key words:-Hemoptysis, Delayed Complication, Nonpenetrating Injury

..... Blunt chest injury is a common presentation to the emergency department, it may result in a variety of delayed sequelae. However, a delayed hemoptysis after blunt trauma is rare. We report a case of a 36year-old woman presenting with hemoptysis 20 years after an accidental fall from the first floor. Imaging revealed an intraparenchymal migration of a fragment from the left fourth rib. The diagnosis was confirmed by video-assisted thoracoscopic surgery (VATS) with mini-thoracotomy, which enabled the extraction of the bone fragment.

Copy Right, IJAR, 2024,. All rights reserved.

Introduction:

Blunt chest injury is a major cause of lung injuryoften resulting from motor vehicle accidents, falls, blunt force, or other traumatic incidents. It can produce rib and sternal fractures, as well as parenchymal, mediastinal, and vascular injuries(1). Hemoptysis as delayed complication of a nonpenetrating thoracic injury is an uncommon situation(2).

We report a case of intra-parenchymal migration of a rib fragment in a 36-year-old patient, occurring 20 years after a fall from the first floor. She had no history of any clinical problem duringthat period.

Case Presentation:

A 36-year-old woman was admitted for recurrent episodes of hemoptysis. The medical history reveals a fall from the first floor, which occurred 20 years ago. Physical clinical examination did not reveal significant abnormalities. Shedenied fevers, weight loss, chest pain, or chronic cough. The blood tests demonstrated normal full blood counts and coagulation profile. Thoracic imaging showed acortical lytic lesion of the middle arch of the left fourth rib with adjacent condensation and detachment of a bone fragment.

Corresponding Author:- Mouhsin Ibba Address:- Thoracic Surgery Department, University Hospital Mohammed VI, Marrakech, Morocco.



Figure 1:- Chest CT scan showing an intra-parenchymal migration of rib a fragment.

Surgical exploration via video-assisted thoracoscopic surgery (VATS) with mini-thoracotomy was performed, and a rib fragment was identified eroding into the left upper lobe, which was successfully extracted. The patient was discharged on postoperativeday 3, and has had no further episodes of hemoptysis.



Figure 2:- Intraoperative view showing protrusion of the retained rib fragment into the left upper lobe (A) and wedge resection of the adjacent parenchyma (B).

Discussion:

The most frequently described late complications following Blunt chest injury are mainly represented by chronic pain, infection and pseudo articulation in the case of associated rib fractures. Hemoptysis is rare and is often associated with an intraparenchymal foreign body (2,3).

Retained intrapulmonary foreign bodies presenting with hemoptysis have been previously reported in the literature are often secondary to penetrating trauma(4,5). In our case, the foreign body was a bone fragment resulting from an eglected rib fracture following a closed trauma.

The mechanism of hemoptysis may be due to migration and erosion of a bronchus, and it may be decades removed from initial injurydue to their fixed positionafter the initial post-injury period(2,6)

The management of pulmonary foreign bodies is mainly dictated by the presence of complications.(7) Elective removal of sharp foreign bodies located near major vessels or airways is imperative because of their potential for catastrophic risk and life-threatening complications. Alternatively, as soon as complications appear, the incriminated foreign body must be quickly extracted by bronchoscopy or surgical resection(2).

In our case the patient had a fragment of the rib incarcerated in the left upper lobe and it had been asymptomatic for almost 20 years, However, he gradually developed hemoptysis. thoracoscopic surgery with mini-thoracotomy was performed, allowing the extraction of the bone fragment with a wedge resection of the adjacent parenchyma, and the patient remained asymptomatic upon 1-year follow-up.

Conclusion:

Complications from retained intrathoracic foreign bodies are rare due to scarring and their fixed position after the initial postinjury period. Our case report represents an interesting and extremely rare situation of delayed hemoptysis complicating a rib fracture two decades after a blunt chest trauma.

References:

1. Norrashidah AW, Henry RL, Hartman S. Hemoptysis following blunt trauma: Case report. PediatrPulmonol. 2002 Nov;34(5):395–7.

2. Symbas PN, Gott JP. Delayed sequelae of thoracic trauma. SurgClin North Am. 1989 Feb;69(1):135–42.

3. İliklerden DM, Çobanoglu U, Sayır F, İliklerden ÜH. Late complications due to thoracic traumas. Turk J Trauma Emerg Surg. 2022 Mar 1;28(3):328–35.

4. Bilello JF, Kaups KL, Davis JW. Delayed pulmonary hemorrhage 17 years after gunshot wound to the chest. Ann Thorac Surg. 2001 Jun 1;71(6):2011–3.

5. Kovnat DM, Anderson WM, Rath GS, Snider GL. Hemoptysis secondary to retained transpulmonary foreign body. Diagnosis by fiberoptic bronchoscopy 28 years after injury. Am Rev Respir Dis. 1974 Feb;109(2):279–82.

6. Khouqeer A, Chen PC, Donahue H, Espinoza A, GhantaR, Mattox K, Wall M. Delayed Migration of an Intrathoracic Foreign Bod.

7. Sokouti M, Montazeri V. Delayed massive hemoptysis 20 years after lung stabbing: an unusual presentation. Eur J Cardiothorac Surg. 2007 Oct 1;32(4):679–81.