DID I COUGH OUT MY LUNG?

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INTRODUCTION

Lung herniation via intercostal muscle wall defect is rare, occurring most commonly after external trauma, surgery or excessive intrathoracic pressure. We present a case of massive Subcutaneous Emphysema (SE), as a result of a rupture in the chest wall, with presence of lung herniation secondary to excessive, violent cough

CASE REPORT

A 64-year-old gentleman, non-smoker with co-morbids of Diabetes Mellitus and Hypertension presented to our Emergency Department with history of swelling over his face, neck and chest for the past 5 days. It was preceded with 2 weeks history of productive and excessive cough.

Upon arrival, patient was comfortable and was not in respiratory distress. He was able to communicate well without any stridor and hoarseness of voice and his oxygen saturation was ranging 97% to 98% without supplementary oxygen.

Physical examination revealed an extensive swelling with crepitus over his jaw and neck extending to his left lower chests region, which turned out to be extensive Subcutaneous Emphysema (SE).

A chest x-ray showed a classical ginko-leaf sign without any evidence of pneumothorax. We proceed with CT-Thorax which shows a left lung herniation through the 6th and 7th intercostal space wall defect associated with left hydropneumothorax, causing bilateral SE

Patient then underwent Left Video Assisted Thoracoscopic Surgery (VATS) and chest wall defect repair.

IMAGES

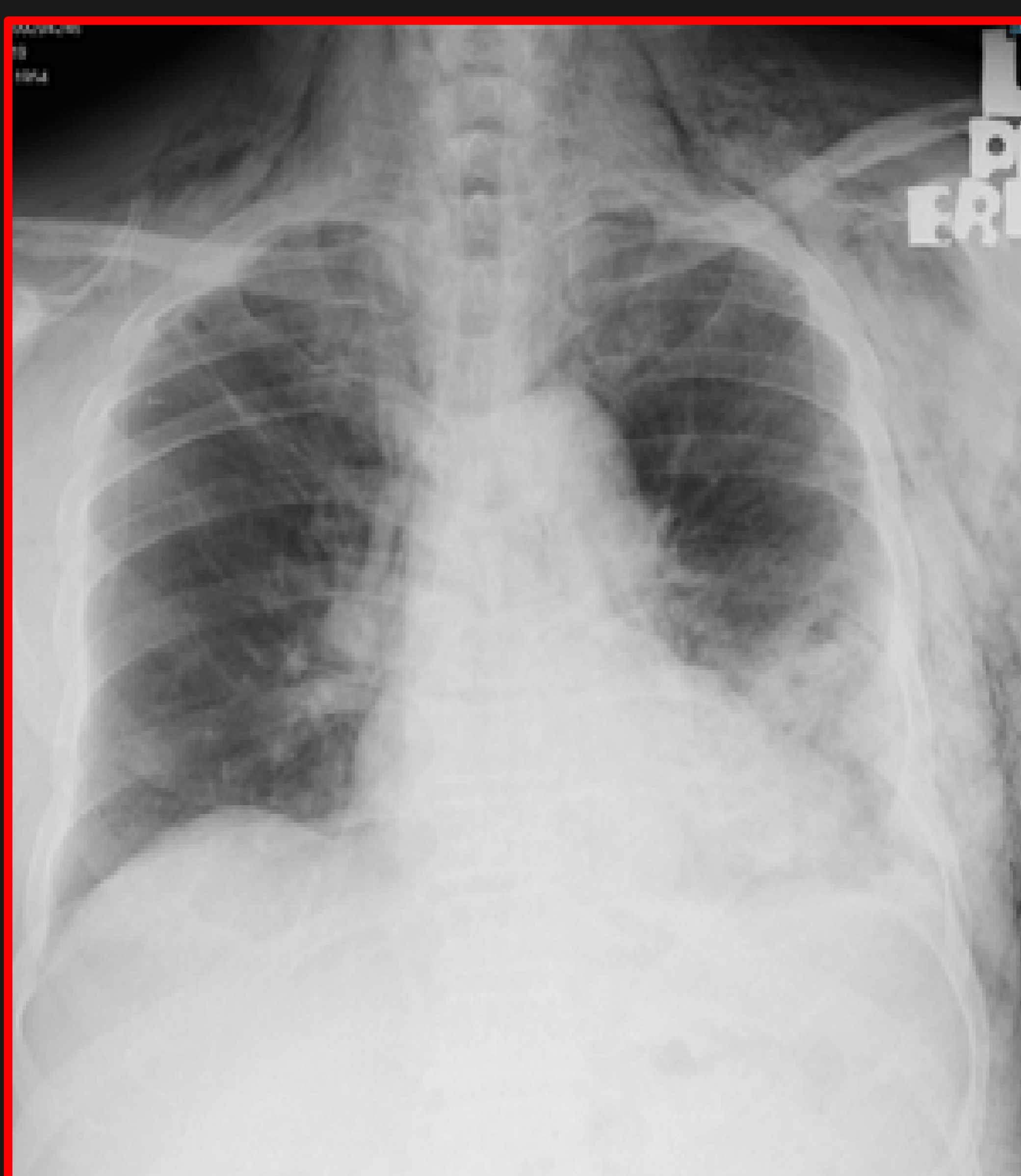

Figure 1. CXR with extensive SE over left side

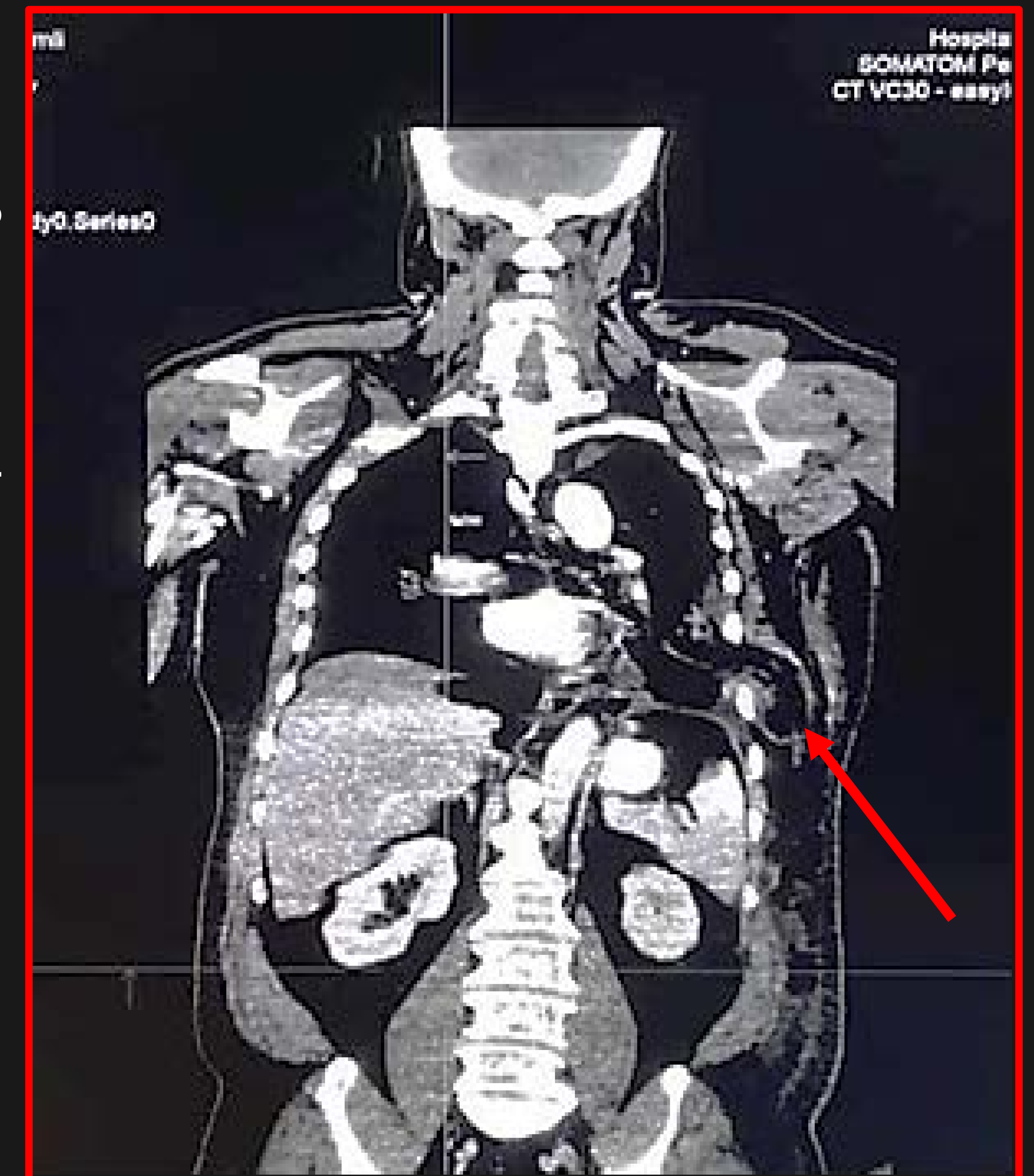

Figure 2. CT Thorax Arrow pointing to lung herniation at 6th and 7th intercostal space.

DISCUSSION

- Lung herniation via intercostal muscle is very rare and only few cases has been reported.
- Its etiology is either acquired or congenital. It can be acquired from either external or internal trauma and develop either acutely or over period of time. The herniation can result from an increase in intrathoracic pressure, as occurred with prolonged cough in this case.
- Lung herniation usually presents with a painful bulge over the chest wall and may have concurrent with SE.
- The clinical diagnosis is usually confirmed by means of plain x-ray or Computed Tomography (CT).
- In the Emergency setting, there is no urgent indication for blind chest tube insertion for all SE cases without finding the root cause.
- In regards to lung herniation repair, indications include increasing in size, dyspnea and impending incarceration.

CONCLUSION

- We share a rare and unique case of spontaneous lung herniation with concurrent SE.
- Finding the primary etiology is the key in managing SE.

REFERENCES

1. Surendra Patel, Dheeraj Sharma, et al. Right sided traumatic diaphragmatic hernia repair with intrathoracic herniation of liver, stomach and transverse colon. Egyptian Journal of Chest Diseases and Tuberculosis 2015; 64; 729-731