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Hemoptysis from intralobar pulmonary sequestration in an adult patient

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stents over protracted periods of time and the difficulty in their removal. Therefore, an inadvertently deployed stent should be removed as early as possible as was done in the index case.

Declaration of patient consent

The authors certify that they have obtained all appropriate patient consent forms. In the form the patient(s) has/have given his/her/their consent for his/ her/their images and other clinical information to be reported in the journal. The patients understand that their names and initials will not be published and due efforts will be made to conceal their identity, but anonymity cannot be guaranteed.

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Conflicts of interest

There are no conflicts of interest.

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Hemoptysis from intralobar pulmonary sequestration in an adult patient

Sir,

A 20-year-old male patient with no previous medical history presented with new-onset hemoptysis for 2 days with episodes of severe coughing, which was initially nonproductive. However, he went on to have 10–15 episodes of expectoration of bright red blood. The patient did not complain of any dyspnea, chest pain, fever, light-headedness, abdominal pain, melena, nausea, or vomiting. Other review of symptoms was negative. He denied any smoking, alcohol, or drug use and had no significant family history.

On presentation, the patient was afebrile and hemodynamically stable. Lung examination revealed clear breath sounds bilaterally without any wheezes or crackles. Cardiovascular, abdominal, and neurologic examinations were all within normal limits. Laboratory data revealed a white blood cell count of 10.4 X 10^6 cells/∝L hemoglobin of 13.9 g%, and a platelet count of 178,000 cells/∝L. The basic metabolic panel was unremarkable. Chest X-ray showed the presence of an ill-defined density in the right lower lobe [Figure 1]. Computed tomography (CT) chest with contrast showed a large rounded, dense mass in a region of the right lower lung, supplied by a solitary arterial branch originating from the descending aorta [Figure 2] and extensive surrounding centrilobular ground glass opacifications contained within the right lower lobe [Figure 3]. This constellation of findings was consistent with intralobar pulmonary sequestration in the right lower lobe. It was associated with the complication of centrilobular consolidation likely resulting in an intracavitary lesion, which could represent either an intracavitary hematoma or a superimposed infection.

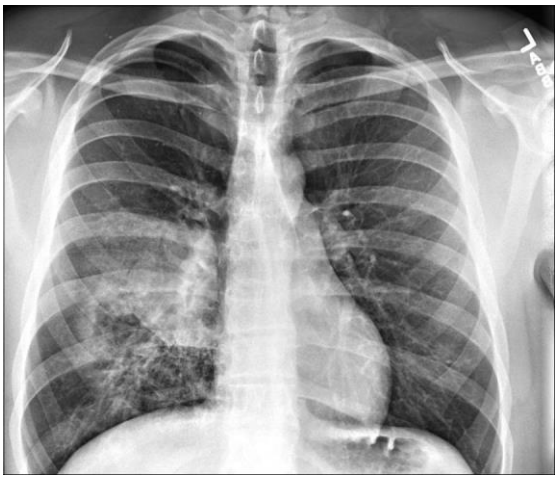

Figure 1: Chest X-ray showing ill-defined density in the right lower lobe

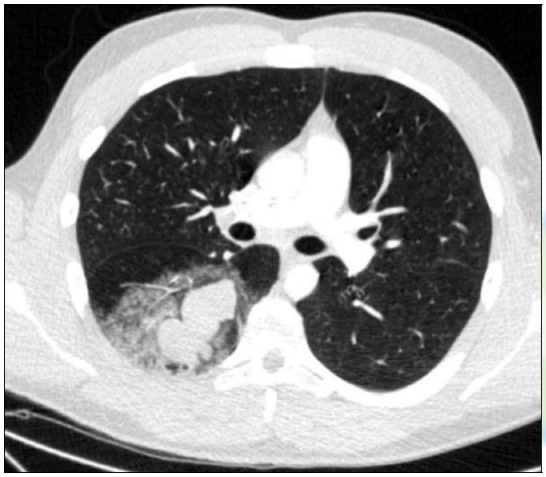

Figure 2: Computed tomography chest with contrast showing a large rounded mass in right lower lung, supplied by a solitary arterial branch

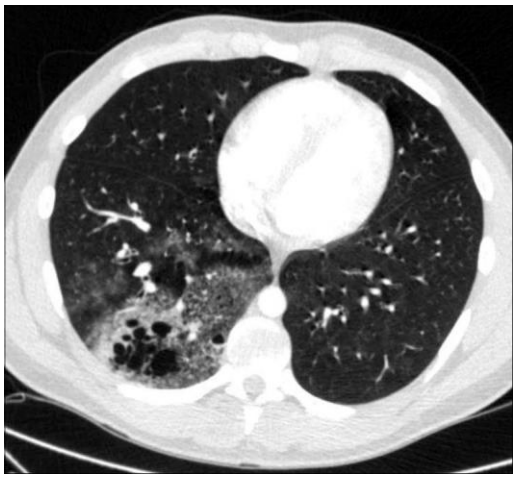

Figure 3: Computed tomography chest with contrast showing centrilobular ground glass opacifications contained within the right lower lobe

The patient was empirically started on broad antibiotic coverage with vancomycin, cefepime, and metronidazole. Investigations including blood cultures, sputum cultures and Gram-stain, sputum for acid fast bacilli and fungal markers, sputum cytology, HIV serology, and vasculitis markers were negative. The patient continued to have intermittent episodes of hemoptysis but remained hemodynamically stable. Subsequent bronchoscopy revealed bloody dark colored secretions coming from the superior segment of the right lower lobe. Bronchoalveolar lavage (BAL) performed, but all microbiologic investigations came back negative. BAL cytology revealed the presence of numerous red cells with minimal white blood cells. Antibiotics were then stopped, given the low suspicion for infection. It was agreed that the initial lesion seen on the CT scan represented an intracavitary hematoma in the setting of intralobar pulmonary sequestration. A collective decision was made to proceed with surgery. The patient successfully underwent right posterolateral thoracotomy with right middle and lower lobectomy. The patient tolerated the procedure well with no complications, minimal blood loss, and an uneventful postoperative period. Repeat chest X-ray showed resolution of the right lower lobe density.

Pulmonary sequestration is a congenital anomalous development of embryonic tissue destined to be part of lung tissue in a manner such that it has no communication to the normal tracheobronchial tree. It receives arterial blood supply not from the pulmonary circulation, but from systemic arterial branches.[1] Pulmonary sequestration comprises 0.15–6.4% of all congenital pulmonary malformations and usually the posterior basal segment is more commonly affected.[2] They are classified anatomically into intrapulmonary and extrapulmonary sequestration. Intrapulmonary sequestration (IPS), as seen in our patient, is the more common form and involves a sequestered tissue mass within a normal lobe of the lung, without its own visceral pleura. The clinical presentation of IPS is usually cough and hemoptysis in young people which frequently raises suspicion for chronic infective etiologies such as bronchitis or tuberculosis.[3,4] Sometimes, the sequestered segment develops recurrent infections leading to its unmasking. Diagnosis is usually made with the help of imaging, although a chest X-ray can often be inconclusive with findings of a localized area of hyperdensity, as was seen in our patient. CT scan and/or magnetic resonance imaging of the chest is usually of better diagnostic value.[5] The gold standard for diagnosis still remains magnetic resonance angiography as it not only confirms the diagnosis but also gives valuable preoperative information such as the anatomy, specific systemic arterial supply, and venous drainage.[6] The treatment of symptomatic IPS is usually surgical and more difficult than extrapulmonary sequestration, given the absence of the segment's own pleura. This often leaves lobectomy as the only option though segmentectomies are also attempted. Although open surgery was the commonly employed approach in the past, there is now sufficient evidence that a thoracoscopic approach can be equally

effective.[7] Recently, arterial embolization and occlusion methods have been used for IPS treatment and abate the need for open surgery.[8]

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Solitary pulmonary adenofibroma in a middle-aged man with bladder cancer

Sir,

Pulmonary adenofibroma is a rare benign tumor of the lung that is composed of a glandular epithelial and a stromal component. On histology, this tumor resembles an adenofibroma of the breast and the female genital tract.[1] A limited number of cases of this benign entity have been reported in the literature.[2] We report a case of pulmonary adenofibroma in a 59-year-old male patient that was found incidentally on chest computed tomography (CT) during the staging work-up of bladder cancer.

A 59-year-old male patient was referred to the urology clinic complaining of intermittent gross hematuria and urinary frequency for the past 4 months before presentation. He also had a dry cough, exertional dyspnea, and no hemoptysis. The remaining review of systems was negative. His past medical history is significant for hypertension with no other medical illnesses. The patient has 20 pack years smoking history and quit smoking 24 years ago. On physical examination, the vital signs were within normal range, and no significant physical findings were found. On laboratory examination, Urinalysis showed moderate microscopic hematuria and mild proteinuria, but no signs of infection, the remaining laboratory studies were unremarkable. The patient then had a CT scan of the pelvis, which showed a bladder mass measuring 5.1 cm × 4.2 cm. A cystoscopy was performed and showed a 4 cm exophytic papillary tumor; a biopsy was taken and confirmed the diagnosis of transitional cell carcinoma.