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Lung Hernia: An Uncommon Cause of Pleuritic Chest Pain

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Rowan University
SCHOOL OF OSTEOPATHIC MEDICINE

LUNG HERNIA: AN UNCOMMON CAUSE OF PLEURITIC CHEST PAIN

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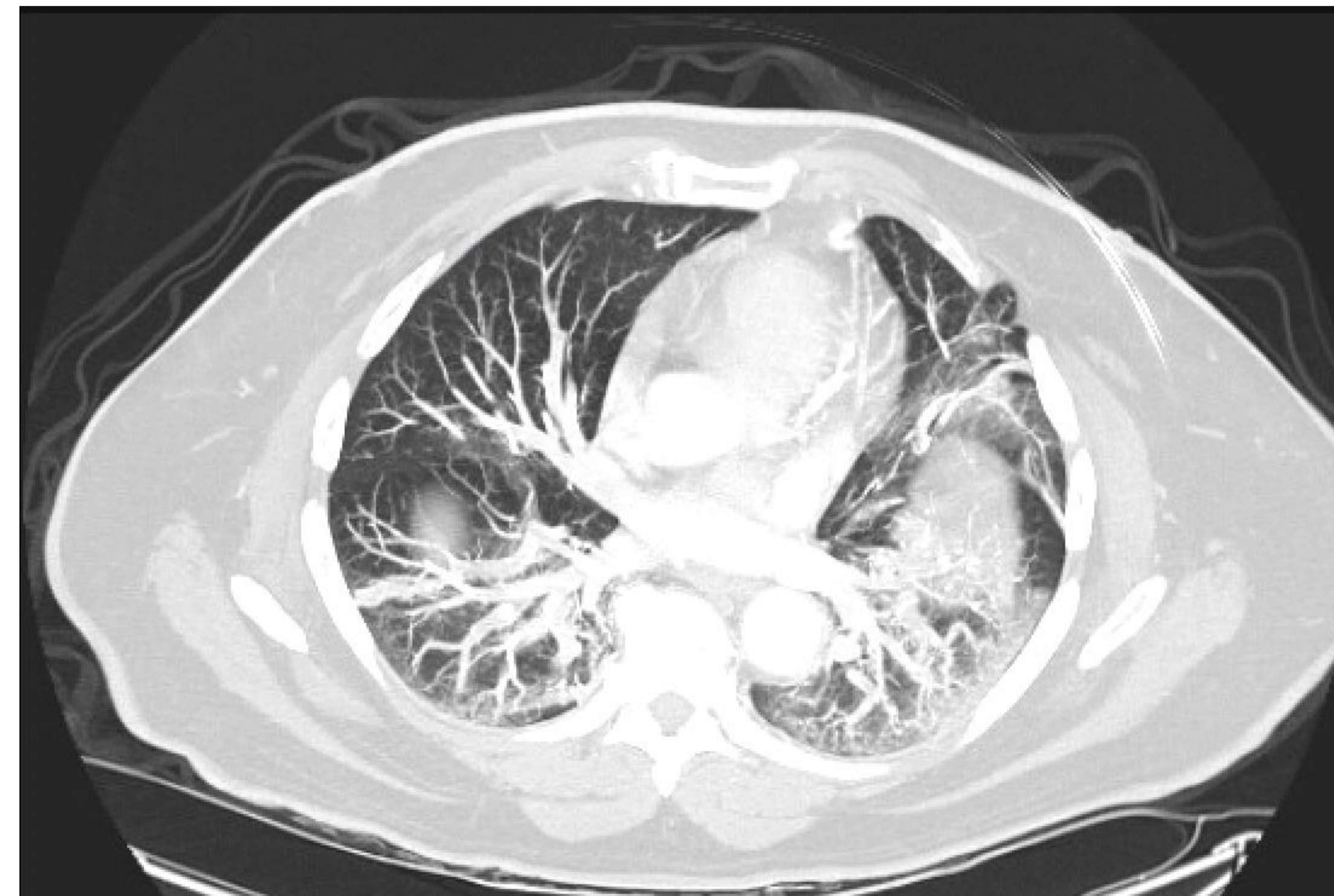
Case Description

A 75-year-old man with a past medical history of CAD s/p minimally invasive CABG, HTN, HLD, cholelithiasis and pancreatitis presented to the emergency room for evaluation of abrupt onset, sharp, pleuritic, left sided, reproducible, chest and “rib” pain. On arrival he was diaphoretic, tachycardic, and appeared extremely uncomfortable. He stated this has happened several times in the past, and notes that he has had multiple unsuccessful ED and subspecialist visits to determine the etiology of his pain.

Given his medical history, he was promptly medicated with IV narcotic pain medication, nausea medication and sent to CT scan immediately to rule out aortic dissection. He remained extremely uncomfortable despite these interventions and additional narcotics were administered. He eventually was able to reposition himself, and the pain immediately resolved.



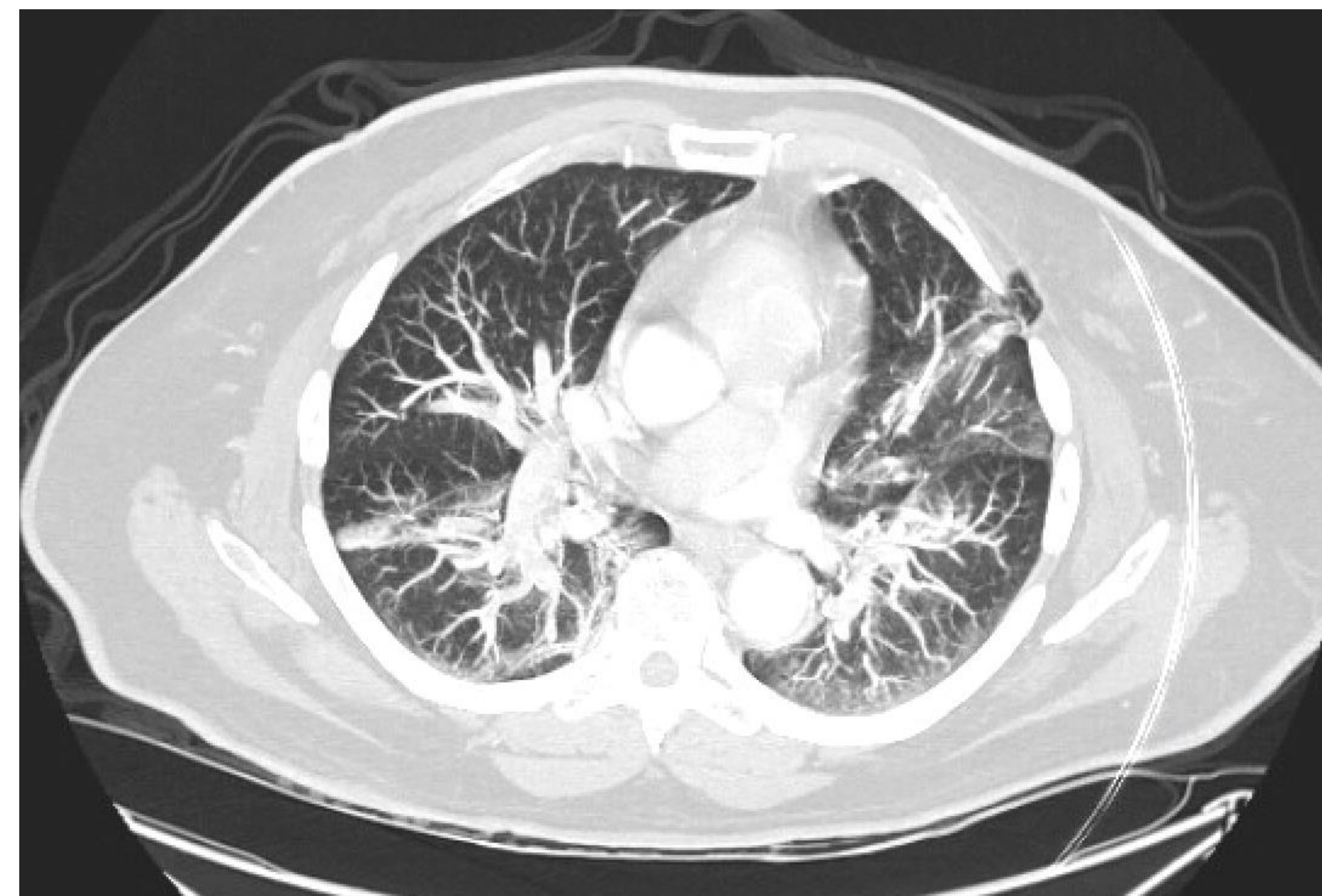


FIGURE 1
CTA Chest (Aorta) Impression: There is a small focal herniation of the lingula between the left 4th and 5th ribs anterolaterally.

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2. Batıhan, G., Yaldız, D., & Ceylan, K. C. (2020). A rare complication of video-assisted thoracoscopic surgery: lung herniation retrospective case series of three patients and review of the literature. Wideochirurgia i inne techniki maloinwazyjne = Videosurgery and other miniinvasive techniques, 15(1), 215-219. https://doi.org/10.5114/wiitm.2019.87937

Results

CTA of his chest revealed “a small focal herniation of the lingula between the left 4th and 5th ribs anterolaterally,” consistent with the location of his pain. This finding represents “lung hernia,” a rare sequelae of thoracic surgical procedures or thoracic trauma. On further discussion with the patient, he confirmed that this began shortly after his minimally invasive CABG. He observed that each time he had had imaging for his pain, his symptoms had already resolved. We hypothesize that the lung intermittently was herniating, accounting for the rapid onset and improvement in his symptoms. The remainder of his workup, which included CTA of the abdomen & pelvis, complete blood count, chemistry, cardiac enzymes, lipase and hepatic function panel, were unremarkable. The patient was ultimately discharged with thoracic surgery follow up.

Discussion

Lung hernia is a rare but important consideration in the differential diagnosis of chest pain in patients with recent thoracic trauma or a history of thoracic surgery. Patients who undergo an anterior approach to thoracotomy, as was the case with our patient, are at a higher risk for developing lung herniation as a result of inherent anatomical weakness and wider intercostal spaces anteriorly and inferiorly [2].

Some cases of asymptomatic lung hernia can be managed conservatively, however literature suggests that recurrent episodes of pain or large hernias undergo surgical repair to minimize the risk of long-term sequelae such as recurrent pulmonary infections, strangulation of the pleural parenchyma and pulmonary infarction or necrosis [1].