Breaking Through: An Unusual Presentation of Sarcoidosis with Lung Herniation

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Abstract: A 43-year-old female with chronic sarcoidosis on prednisone presented with pleuritic chest pain and dyspnea. Imaging revealed partial lingula herniation through the left fifth and sixth ribs, a rare finding typically linked to trauma or surgery. While not previously reported in sarcoidosis, chronic cough, fibrotic remodeling, and steroid-induced muscle weakness may have predisposed to chest wall compromise. The patient was managed conservatively with outpatient surveillance. This case highlights a novel mechanical complication of pulmonary sarcoidosis and underscores the need for clinical vigilance when patients develop new chest wall symptoms.

Introduction

Lung herniation is a rare condition typically associated with trauma or thoracic surgery. Spontaneous cases are uncommon and often linked to chronic cough or chronic pulmonary disease. While sarcoidosis can involve pleural and chest wall structures, especially in its fibrotic stages, there are no published reports directly attributing lung herniation to sarcoidosis. While not directly linked, symptoms commonly seen in sarcoidosis, such as chronic cough or steroid-induced muscle weakening, may contribute to the development of herniation.

References

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Case Presentation

Patient is a 43-year-old female with a past medical history of sarcoidosis on chronic prednisone who presented to the emergency department with symptoms of pleuritic chest pain and shortness of breath. Upon admission, vitals were significant for tachycardia and oxygen saturation of 96% on 2L nasal cannula. Upon physical exam patient had left sided chest wall pain upon palpation. Computed tomography angiography of the chest revealed partial herniation of the lingula through the left fifth and sixth anterolateral ribs, consistent with intercostal herniation (Figure 1 and 2). The patient was evaluated by cardiothoracic surgery who recommended outpatient follow up for surveillance as lingual herniation was stable without incarceration and did not cause the patient much discomfort.

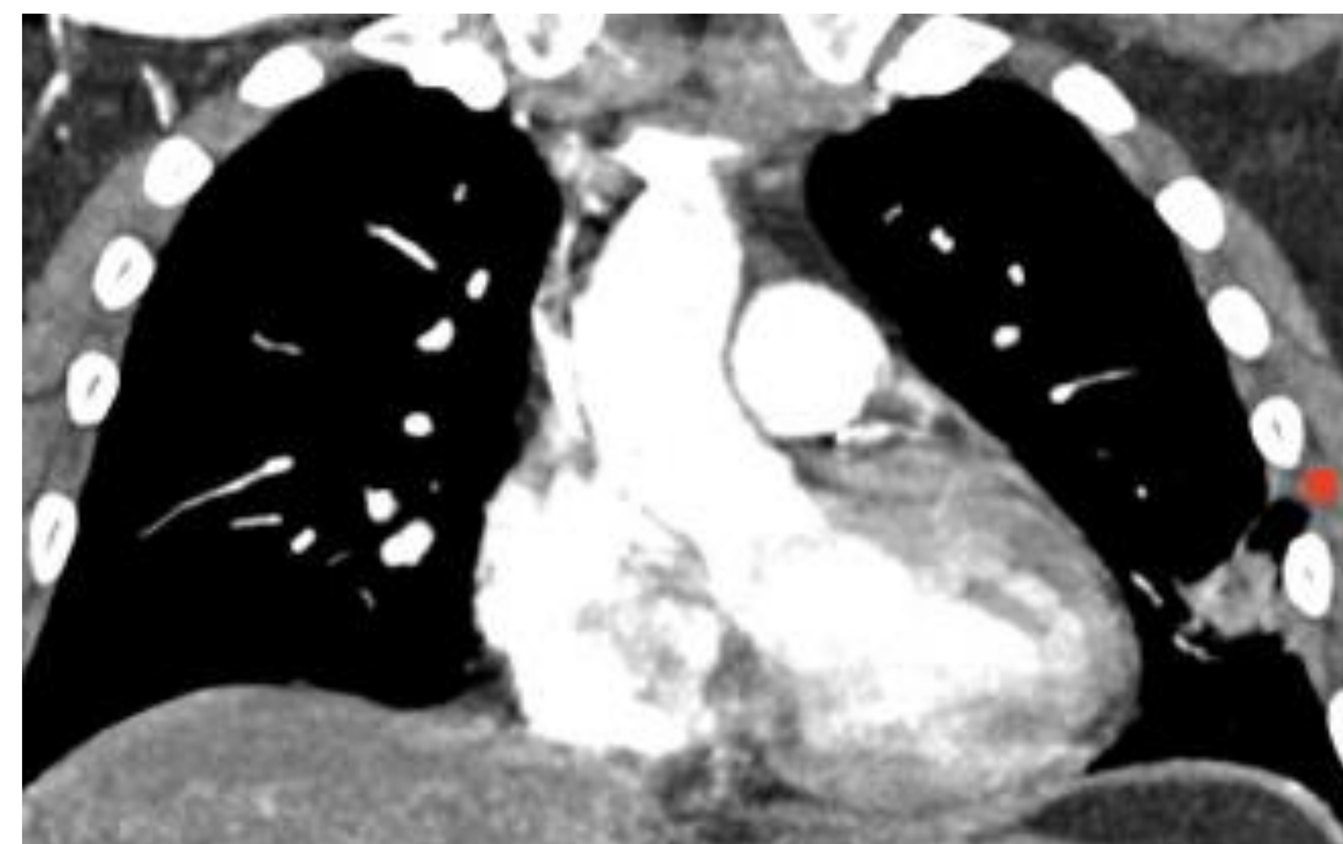

Figure 1. Coronal View

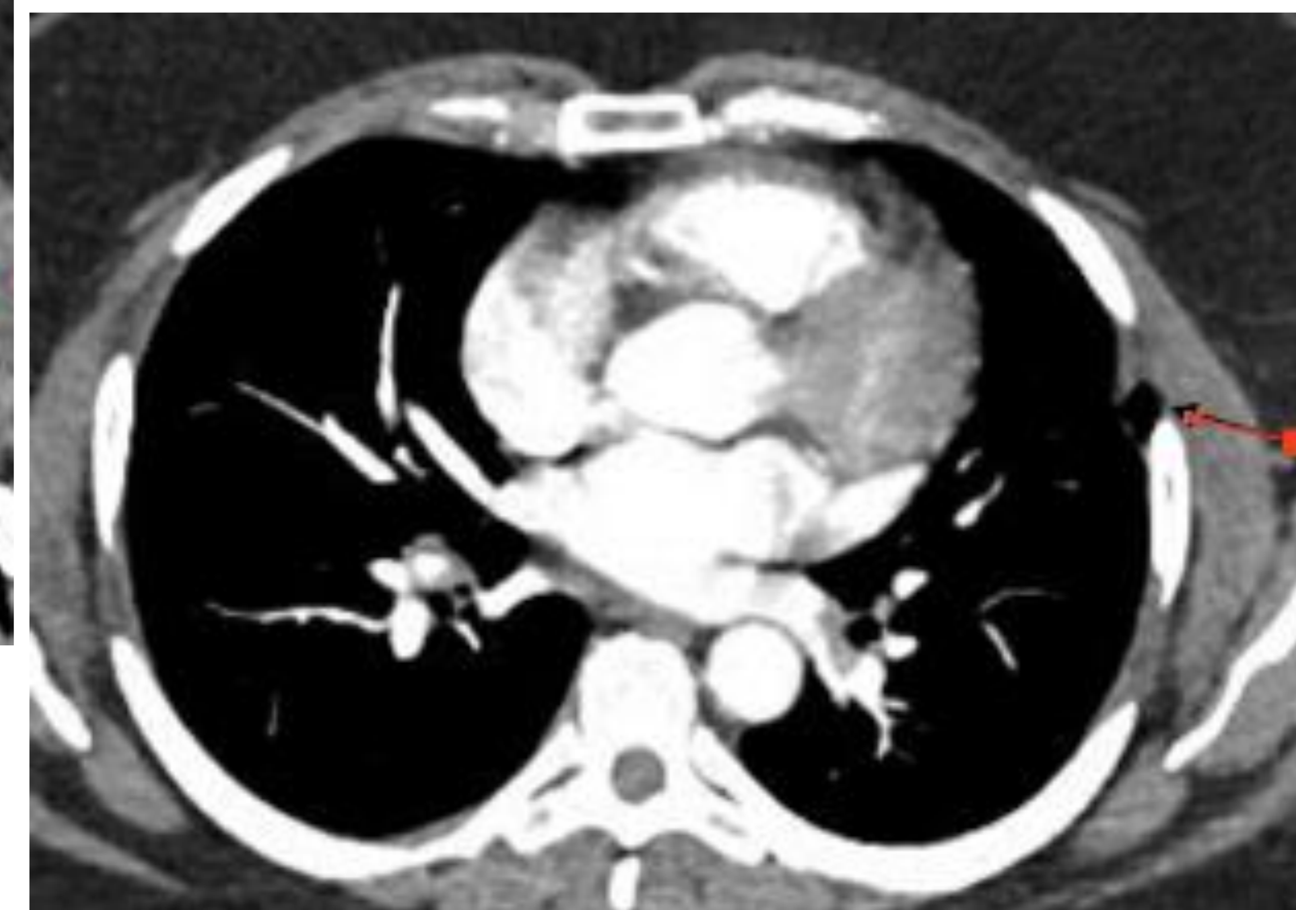

Figure 2. Axial View

Discussion/ Conclusion

This case highlights a previously unreported complication of chronic pulmonary sarcoidosis involving spontaneous intercostal lung herniation. It suggests that prolonged granulomatous inflammation, fibrosis, and possible steroid-induced muscle weakening may compromise chest wall structures, predisposing to herniation even in the absence of trauma. Patients with pulmonary sarcoidosis who present with new chest wall symptoms, particularly after coughing or prolonged steroid use, should be evaluated for potential structural lung complications. This case contributes to the limited literature on mechanical complications of sarcoidosis. Early recognition can guide appropriate conservative or surgical management and help prevent morbidity. Further research is needed to determine the most effective treatment approach for sarcoidosis-related lung herniation and to guide management in similar cases.