

Herniation of the Caudate Lobe of the Liver- Acuity is the Key

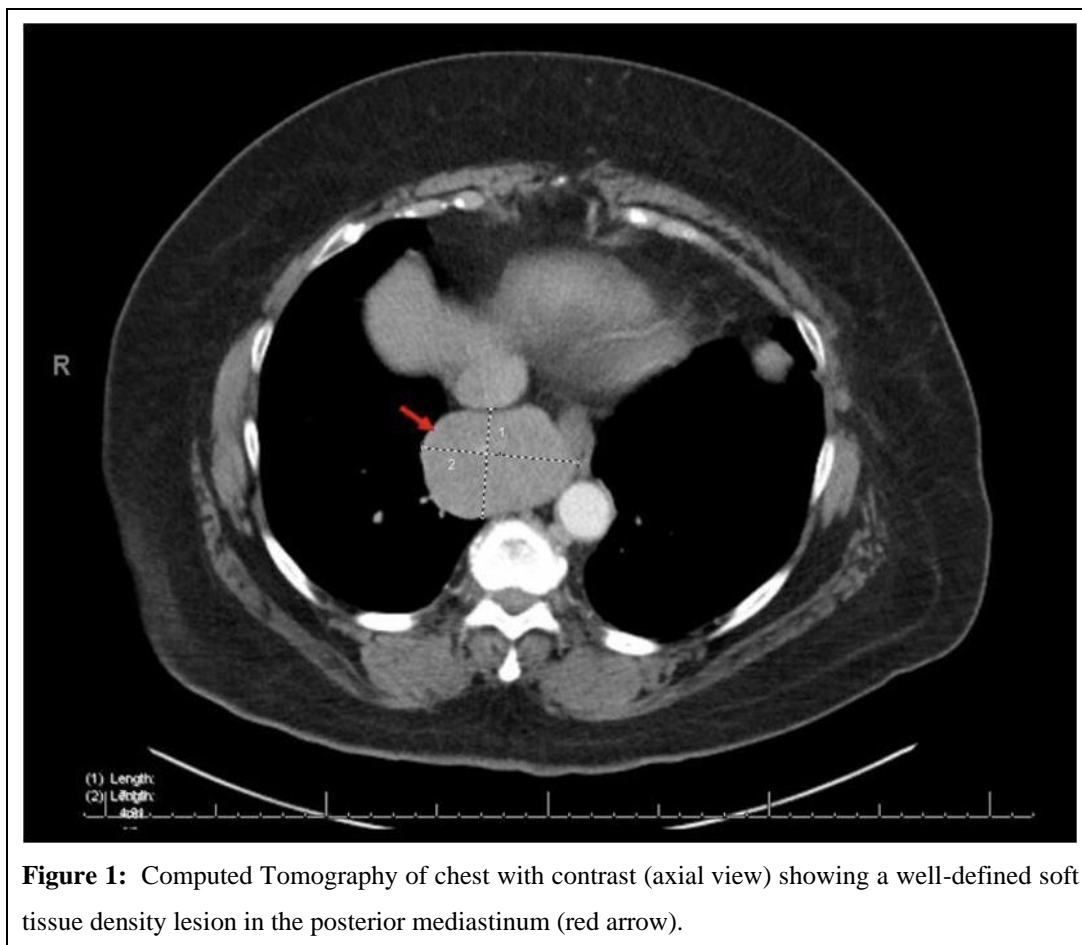
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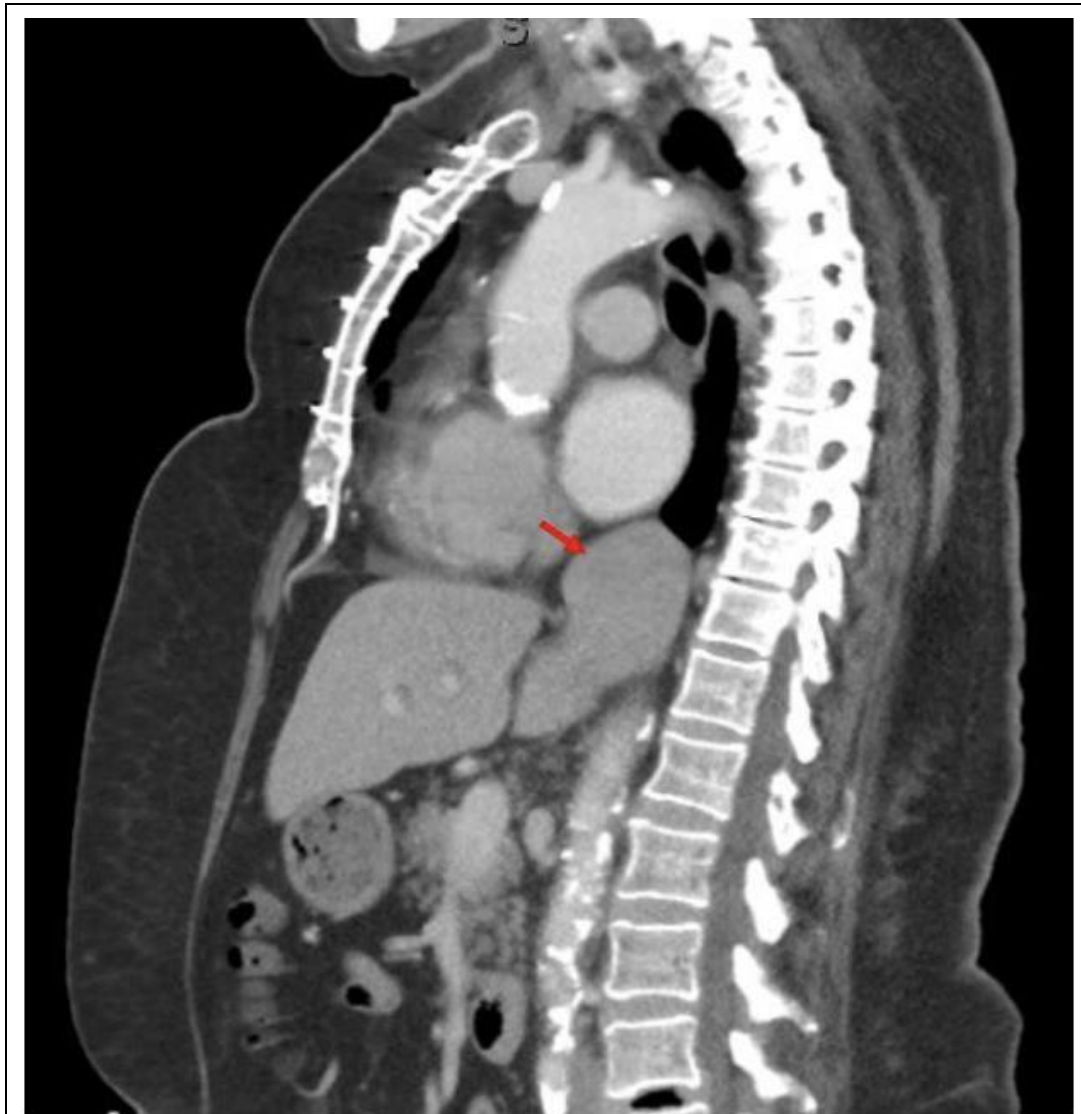


Figure 2: Computed Tomography of the chest, abdomen and pelvis with contrast (sagittal view) showing well defined soft tissue mass in the posterior mediastinum (red arrow) similar in attenuation to the adjacent liver and appears continuous with the caudate lobe of liver.

Clinical Image

Abstract: Herniation of the caudate lobe of the liver presenting as posterior mediastinal mass is a rare occurrence. It is vital to determine the acuity of the lesion promptly as acute herniation is a surgical emergency. Chronic and stable liver herniation into the thoracic cavity can be managed conservatively if uncomplicated. Surgery may be warranted if it causes persistent troubling symptoms.

Keywords: Diaphragmatic herniation; Caudate lobe of the liver; Posterior mediastinal mass

Key Clinical Message: It is crucial to determine the acuity of herniation of a part of liver into thoracic cavity, as acute herniation is a surgical emergency either it is traumatic or spontaneous. Chronic herniation can be treated conservatively if it is stable.

Case History: The differential diagnosis for posterior mediastinal mass includes neurogenic tumor, meningocele or thoracic spine lesions and herniated caudate lobe of the liver, which is an extremely rare consideration. It is essential to identify herniation of the liver to prevent unnecessary tumor work up. Once the diagnosis is established, the determination of acuity should be prompt to tailor further treatment [1,2].

Question: What is the approach to diaphragmatic herniation of the caudate lobe of the liver?

Answer: We present a case of caudate lobe of the liver herniation presenting as posterior mediastinal mass.

A 75-year-old female presented to her physician's office with worsening shortness of breath from her baseline of 3 days duration. She had a history of sarcoidosis and chronic obstructive pulmonary disease (COPD). After ruling out COVID-19 infection, a Computed Tomography (CT) of the chest was obtained to check for sarcoidosis flare; it revealed a posterior mediastinal mass measuring 4.5x6.5x6.4cm (Figure 1). Further work up with a CT chest, abdomen and pelvis with contrast revealed that the posterior mediastinal mass had similar attenuation as the liver and appeared continuous with the caudate lobe of the liver (Figure 2). The finding was confirmed by nuclear medicine (NM) scan. Further review to determine the acuity of the lesion revealed records from an outside organization showing a similar finding a few years ago. The patient denied any history of trauma and laboratory work revealed normal liver functions. Hence, a congenital diaphragmatic defect was suspected. After pulmonologist evaluation, her COPD medications were adjusted, and the patient was started on continuous positive airway pressure (CPAP) following a positive sleep study. Since the size of herniated liver was unchanged and patient improved with medication change, it was assumed to be more of COPD exacerbation and herniation was considered as an incidental finding. Hence surgery was not pursued at this time.

Authors' Contributions

Justine Chinnappan involved in acquisition, draft, and review.

Nageshwari Palanisamy involved in acquisition, draft, and review.

Ekwevugbe Ogbon involved in conception and review.

Jami Foreback and Ghassan Bachuwa involved in review.

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