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Giant Posterior Mediastinal Mass: A Rare Presentation of Malignant Pleural Mesothelioma
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Case Presentation

A 74-year-old male with a history of tobacco abuse, COPD, hypertension, and latent tuberculosis presented from an outside hospital for evaluation of dyspnea.

The patient’s history was unique for having recurrent left pleural effusions of unclear etiology

A CT chest with IV contrast was performed which revealed a 24 cm mediastinal mass that encased the distal esophagus and thoracic aorta (Figure 1).

Endobronchial US-guided Fine Needle Aspiration (EBUS-FNA) was performed and a left pleural drainage catheter was placed.

Biopsy showed mesothelial differentiation but did not allow for definitive diagnosis.

Unfortunately 4 months later, the patient re-presented with worsening shortness of breath and increased drainage from his pleural catheter. He also endorsed progressive dysphagia to solid foods

Repeat CT showed growth of the mediastinal mass, now 7.4 x 10.7 x 24 cm, a newly-growing right pleural effusion, and a distended esophagus (Figure 2).

Video-Assisted Thoracoscopic (VATS) biopsy was performed and a new right Pleurx catheter was placed.

Immunohistochemical staining confirmed pathologic diagnosis of Malignant Mesothelioma (Figure 6).

He was referred to oncology for palliative radiation and chemotherapy.

Discussion

Malignant mesothelioma typically presents in patients with asbestos exposure, with respiratory symptoms caused by primary pleural involvement with associated pleural effusion.

Instead, this patient presented with a rapidly growing posterior mediastinal mass, without a pleural lesion or known asbestos exposure.

Common differential diagnosis for posterior mediastinal masses usually includes neurogenic tumors (accounts for 60%), meningoceles, and spinal lesions, and did not include mesothelioma prior to this encounter (1).

Repeated pleural fluid analyses and EBUS-FNA tissue samples were insufficient to yield a definitive diagnosis and resulted in delay of diagnosis and subsequently significant growth and progression of the patient’s disease.

Treatment options remain mostly palliative with prognosis typically less than 12 months, but if detected early, a combination of chemotherapy/surgery regimens can prolong survival to an average of 22 months (2).

Conclusions

This presentation of malignant mesothelioma as a posterior mediastinal mass with bilateral pleural effusions without evidence of primary lung involvement was atypical.

As a result, the patient was undiagnosed for several months, during which time the tumor rapidly progressed.

This case illustrates the importance of considering mesothelioma in your differential for posterior mediastinal masses.

Understanding the unique ways mesothelioma can present could lead to earlier diagnosis and potentially improved patient outcomes.

References


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