

## **Necrotic Mediastinal Mass in a Drug User; Squamous Cell Carcinoma of Unknown Primary Tumor**

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**Introduction:** Squamous cell carcinoma with an unknown primary tumor presenting as a solitary mediastinal mass is unusual. Differential diagnosis of mediastinal mass in a posterior compartment includes neurogenic tumors and thoracic spine lesions. Here is a case of necrotic posterior mediastinal mass found to be a squamous cell carcinoma that was initially treated as an abscess.

**Case Presentation:** A 51-year-old female with human immunodeficiency virus (HIV) and polysubstance use disorder presented with increasing dyspnea along with chest and back pain. She was noted to have lethargy and expiratory coarse breath sounds. Laboratory results were significant for white blood cell counts of 73,500 and reactive HIV test with viral load of 95,000. Urine toxicology was positive for opiates and cocaine, and she denied intravenous drug use. Computed tomography (CT) of the chest showed emphysema and a large necrotic posterior mediastinal mass invading the upper thoracic vertebral bodies with pathologic compression fractures. Patient was started on broad-spectrum antibiotics for leukocytosis and presumed abscess. Thoracic surgery was consulted but the mass was considered not resectable. Patient underwent a biopsy of the mass by Interventional Radiology with pathology revealing poorly differentiated squamous cell carcinoma. Flow cytometry was negative for evidence of B or T-cell lymphoma or acute leukemia. Additional CT imaging did not show any definite evidence of primary or metastatic disease in the chest, abdomen, or pelvis. Positron emission tomography or magnetic resonance imaging was not performed due to patient's severe anxiety. Pan-endoscopy was also not pursued to evaluate for the primary source as her respiratory status continued to decline. Patient was eventually intubated for hypoxic respiratory failure but expired after extubating per the patient's wish.

**Discussion:** The patient's primary tumor remains unknown as further evaluation was limited due to declining clinical status. However, the case represents a rare presentation of metastatic squamous cell carcinoma in the posterior mediastinum.