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Gigantic soft tissue plasmacytoma

Kelly Meza[1]*; Tannaz Armaghany[2]; Purnima Sravanti Teegavarapu[2]

[1]Department of Internal Medicine, Baylor College of Medicine, Houston, TX, USA.

[2]Department of Hematology/Oncology, Baylor College of Medicine, Houston, TX, USA.

***Corresponding Author: Kelly Meza**

Department of Internal Medicine, Baylor College of Medicine, Houston, TX, USA.

Email: kellymezamd@gmail.com

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Description

A 59-year-old male presented with a progressively enlarging anterior chest wall mass, first noted 5-6 years after blunt trauma to the sternum. Over the past six months, the mass had rapidly increased in size, resulting in mild dysphagia, dyspnea, and odynophagia. Physical examination revealed a firm, immobile chest wall mass with overlying dilated veins. The case posed a diagnostic dilemma due to its location and characteristics. Differential diagnosis for anterior mediastinal masses typically includes the "4 T's": thymoma, teratoma (germ cell tumors), thyroid neoplasms, and lymphoma. The chronicity and recent rapid growth raised suspicion for a neoplasm arising in the soft tissue or bone, possibly linked to prior trauma. The absence of systemic symptoms and normal initial tumor markers added further complexity. Laboratory workup showed a hemoglobin of 11.6 g/dL, calcium of 9.0 mg/dL, and creatinine of 0.8 mg/dL. Tumor markers including TSH, LDH, β-hCG, and AFP were within normal limits. Serum protein electrophoresis revealed no monoclonal spike; however, 24-hour urine electrophoresis identified an M spike with significantly elevated free kappa light chains (1956.2 mg/L). CT imaging demonstrated a large 15.2 × 18.2 × 16.6 cm lobulated mass with internal calcifications and invasion into the sternum, extending into the anterior chest wall and compressing the trachea posteriorly. Biopsy confirmed a plasma cell neoplasm.

This case highlights a rare presentation of soft tissue plasmacytoma arising at a site of prior trauma. While extramedullary plasmacytomas are uncommon, especially in the chest wall, trauma may create a local environment that supports malignant plasma cell proliferation. This diagnosis should be considered in patients with atypical chest wall masses, particularly when classic mediastinal tumors are excluded. Early recognition is essential for prompt diagnosis and management.

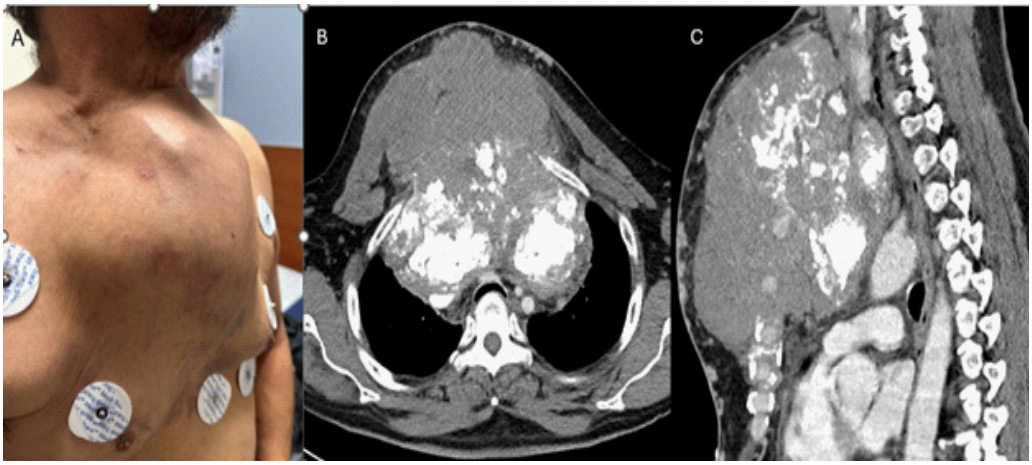

Figure 1: (A) Clinical image showing a large anterior chest wall mass with overlying dilated vein. **(B)** Axial CT showing a 15.2 × 18.2 × 16.6 cm lobulated, calcified mass invading the sternum, extending into the chest wall, and compressing the trachea.