

Mediastinal Sarcoma with Deviated Tracheal Anatomy

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A 59-year-old Latin American woman presented with 1 month duration of shortness of breath that worsened with exertion. Patient also complained of intermittent dry cough, with no sputum production, progressive dysphagia to solids, and 20 pound weight loss over last 3 months. She denied orthopnea, or leg swelling, hemoptysis, or contact with persons with tuberculosis. Her medical history was significant for hypertension, hyperlipidemia, depression, and basal cell carcinoma that was excised from the left ala of her nose 3 years previously. Physical examination revealed trachea deviated to right, and distended external jugular veins when in a seated position. Chest auscultation revealed audible stridor. Her laboratory work was unremarkable except for mild anemia. Her chest radiograph was remarkable for a posterior mediastinal mass measuring 17 cm in horizontal dimension, 10 cm in vertical dimension, and 11 cm in anteroposterior dimensions (Figure 1). Computed tomography scan of chest showed a 15.4-cm solid mediastinal mass with punctate calcifications, which was deviating the trachea anterolaterally (Figure 2). Histologic examination of the biopsy and aspirate smears demonstrated a monomorphic population of spindle cells seen in intersecting fascicles (Figure 3). Immunohistochemical stains were positive for Vimentin, confirming the diagnosis of sarcoma. The severely compressed airway was too low to be intubated. Also, the tortuosity of the airway precluded airway stenting. Subsequently, the patient was started on doxorubicin/ifosfamide/mesna chemotherapy. At the time of this report submission she had tolerated two cycles of doxorubicin/ifosfamide/mesna chemotherapy extremely well with repeat computed tomography scan of chest showing no interval increase in the size of the mass.

Mediastinal sarcoma comprises 1.4% of sarcomas making it a rare site of occurrence. Forty-one percent of medias-

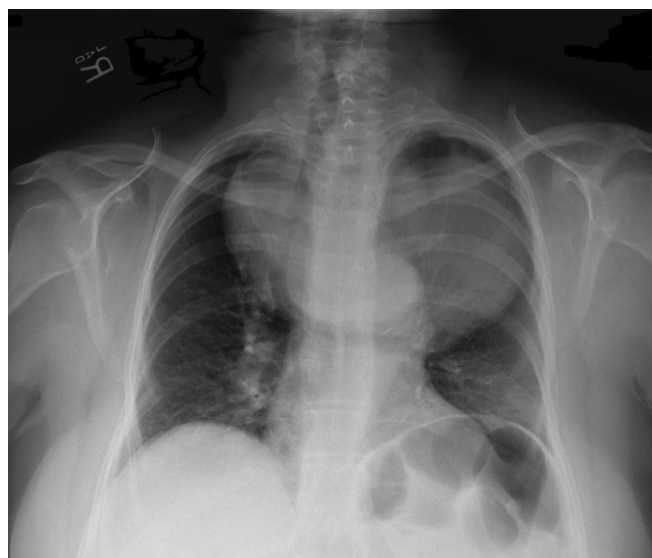


FIGURE 1. Chest radiograph showing a mediastinal mass causing right-sided tracheal deviation.



FIGURE 2. Computed tomography scan of chest shows mediastinal mass with punctate calcifications, which was deviating the trachea anterolaterally.

tral sarcomas originate in the anterior mediastinum, and 15% have the spindle cell type histology.¹ Currently, there are no specific National Comprehensive Cancer Network guidelines for the treatment of mediastinal sarcoma (<http://>

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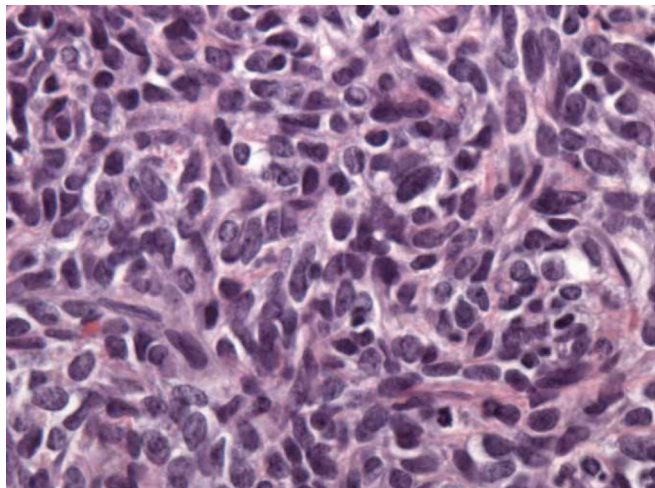


FIGURE 3. Histologic examination of the mediastinal mass biopsy demonstrated a monomorphic population of spindle cells seen in intersecting fascicles.

www.nccn.org/professionals/physician_gls/PDF/sarcoma.pdf). Tumors of size less than 5 cm, not close to adjacent viscera, or critical neurovascular structures can be resected by surgery.¹ Chemotherapy (doxorubicin or ifosfamide based) and/or radiotherapy, is used for unresectable masses. Five-year survival is 49% for complete resection; 3-year survival is 18% for incomplete or no resection.¹ These tumors have a propensity for tracheal compression, and the resultant severe airway compression is often a challenge to intubation. Aggressive chemoradiotherapy with use of airway stents is advocated in those cases.²

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