Introduction

- Soft tissue sarcomas are a rare malignancy in adults, affecting approximately 1% of the population.
- Soft tissue sarcoma metastases are usually found in extremities as an enlarging, painless mass. There are few documented cases where pericardial metastases exist, especially for clear cell sarcoma.

Case Presentation

- 56-year-old Vietnamese male with a past medical history of clear cell sarcoma of the left fifth digit status post amputation eight months prior with clear excisional margins presented to the hospital with four days of non-productive cough, shortness of breath that was worse while lying supine, and substernal sharp chest pain that worsened with cough.
- On physical examination, the patient had dullness to percussion on the left lower lung field.
- Initial labs showed hypercalcemia of 12.5mg/dL and Beta-Natriuretic Peptide of 427pg/mL.
- Electrocardiogram showed T-wave inversion in leads V5-V6 (Figure 1).
- Chest radiography showed bilateral pleural effusions (greater on the left) and cardiac enlargement which obscured the left heart border (Figure 2).
- 2-D echocardiogram showed an ejection fraction >55% with a large fibroin pericardial effusion without any hemodynamic compromise (Figure 3).
- Computed Tomography of the chest (Chest CT) showed a large pericardial mass posterior to the left atrium measuring 6.6cm x 4.5 cm with multiple pericardial nodules. A significant pericardial effusion was seen measuring 5.7cm (Figures 4 & 5).

Hospital Course

- Cardiothoracic Surgery performed a subxiphoid pericardial window. 1200cc of bloody fluid was drained, a pericardial biopsy was taken and a chest tube was placed for continued drainage. The patient’s symptoms improved. The chest tube was removed one week after insertion after decrease in fluid drainage.
- The patient received intravenous fluids with lasix, calcitonin and a dose of Zometa for his hypercalcemia. At the time of discharge, his calcium level had decreased to 9.5mg/dL.
- Pericardial mass tissue biopsy and pericardial fluid cytology positive for clear cell sarcoma (Figures 6 & 7).
- A whole body bone scan was completed which was negative for any bony metastases.
- Dermatology performed two shave biopsies to rule out melanoma. Pathology confirmed seborrheic keratosis and intradermal nevus.
- Hematology-Oncology initiated four cycles of palliative doxorubicin chemotherapy as an outpatient.
- A repeat Chest CT after four cycles of chemotherapy showed progression of left axillary lymphadenopathy and malignant infiltration into the left teres major and subscapularis muscles. No significant pericardial effusion was noted. Large bilateral pleural effusions were present.

Discussion

- Soft tissue sarcomas can recur either locally or as metastatic disease.
- Surveillance monitoring is important in patients with soft tissue sarcoma since patients are often asymptomatic with metastases.
- Cardiac metastases in patients with a history of soft tissue sarcomas should be considered especially when symptoms and/or signs of heart failure are present.
- The prognosis with patients with metastases to the pericardium is poor.

References
