A Case of Hurthle Cell Carcinoma Presenting With Malignant Pleural Effusion

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Introduction

- Hürthle cell carcinoma (HCC) is rare, accounting for 3% of thyroid neoplasms.
- It is more clinically aggressive compared to other differentiated thyroid cancers.
- Though thoracic involvement has been documented, it has rarely caused malignant pleural effusion.
- Here, we describe a case of metastatic HCC presenting with dyspnea and recurrent unilateral pleural effusion.

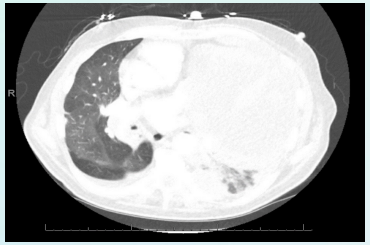

Figure 1. CT chest demonstrates extensive pleural based masses in left lung with loculated pleural effusion producing near-complete atelectasis of the left lung. Also noted is shift of heart and mediastinal structures to right.

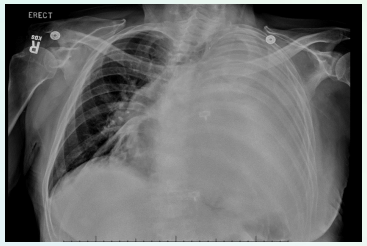

Figure 2. CXR demonstrates opacification of left hemithorax with right shift of mediastinal structures.

Case

- A 73-year-old male presented with dyspnea.
- Past medical history was significant for HCC of the thyroid diagnosed in 2005 treated with thyroidectomy followed by radioactive iodine ablation. Pathology was consistent with widely invasive HCC with clear cell change.
- He remained asymptomatic until he developed dyspnea in 2015; CT chest showed increase in pulmonary nodule size.
- Biopsy revealed metastatic poorly differentiated thyroid cancer. He underwent radiotherapy of the right upper lobe and resection of left chest wall mass.
- He continued to have pleuritic chest pain. Imaging showed a recurrent large left pleural effusion, requiring thoracentesis with symptomatic relief.
- Patient underwent treatment with several chemotherapy agents, complicated by side effects.
- He then developed left loculated pleural effusion and subsegmental PE
- He continued to deteriorate with multiorgan failure. Ultimately pursing home hospice.

Discussion

- Hurthle cell carcinoma is rare, aggressive form of cancer with increased risk of recurrence.
- Local occurrence and metastatic disease could be found in 30% patients over 20 years after total or subtotal thyroidectomy.
- Pulmonary metastasis has been reported to be the most common site, though its incidence is significantly less in patients who were treated by total thyroidectomy.
- Nevertheless, it is imperative to consider HCC recurrence in patients presenting with dyspnea and pleural effusion despite interventions.

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