Intramedullary Spinal Cord Metastasis from Pancoast Squamous Cell Carcinoma Presenting within the Previously Treated Radiation Field

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Disclosures

• none
Background

- Pancoast tumors are non-small cell lung cancers arising from the pulmonary apex.
- These tumors typically spread to nearby tissue, including the vertebral column, which can result in symptomatic spinal cord compression.
- Treatment involves primary resection followed by chemotherapy and radiation therapy.
- The spinal cord itself maybe included in the radiation treatment field with doses adjusted to the spinal cord tolerance dose of less than 45 Gy.
- We present the first known report of an intramedullary spinal cord metastasis (ISCM) from a primary pancoast lung tumor occurring within the radiation treatment field.
Methods

• Case report and literature review.
Case Report

• A 56 year-old female with a 30 pack-per-year tobacco history, was found to have a poorly differentiated squamous cell carcinoma of the lung with extension to the paravertebral soft tissue of the thoracic spine.

• She was treated with concurrent chemotherapy, Carboplatin and Taxol, and radiation to the right lung mass and spine.

• Radiation therapy included a fractioned 42 Gy dose to the spinal cord.
Case Report

• Approximately 1 year after initial diagnosis and treatment, the patient presented with bilateral lower extremity weakness and a T7 sensory level.

• MRI demonstrated a 6 x 25 mm area of central enhancement at the T2-3 level.

• Surgical intervention was undertaken for both diagnostic and potentially therapeutic purposes.

• Pathologic examination demonstrated malignant carcinoma growing nest of tumor cells within a fibrous stroma. The immunohistochemical profile of the lesion was consistent with a metastatic pulmonary carcinoma.
Pre-Operative MRI

Sagittal T1 Flair with contrast and axial T1 with contrast showing a enhancing lesion at the level of T2-3
Conclusions

• Intramedullary spinal cord metastasis (ISCM) are rare, accounting for only 1-3% of all intramedullary tumors.

• Few reports of ISCM from non-small cell lung cancer exist in the literature.

• This is the first report of an ISCM from a pancoast tumor occurring within the radiation treatment field.