Bronchogenic Adenosquamous Cell Carcinoma with Metastasis to Skull: a Case Report

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Abstract

Introduction: Pulmonary Adenosquamous carcinoma is an uncommon histological variety of bronchogenic carcinoma, and has histologic areas differentiated as both squamous cell carcinoma and adenocarcinoma and has clinical behavior more like that of adenocarcinoma. Tumor Stage is higher at the time of diagnosis, and survival is poorer.

Case presentation: We present a 65 years old woman with bulging in her left frontal site of the head. He also had a dyspnea and abnormal chest X-ray and Histopathological findings for the bronchoscopic biopsy specimen as well revealed bronchogenic adenosquamous carcinoma. Brain MRI with contrast showed a metastasis to skull that resulted in a lytic lesion in frontal bone and leakage of CSF from the skull.

Conclusion: Metastasis of lung cancer to the skull is not a common manifestation of this tumor. However, as we showed, the only manifestation of lung cancer can be the metastatic complications of the tumor.

Keywords: Bronchogenic Adenosquamous cell carcinoma, metastasis, Paclitaxol, Carboplatin.

Introduction

Lung cancer ranks among the most common and most lethal malignancies worldwide.(1) Lung cancer is rapidly emerging as a major cause of mortality in the Middle East, Africa and Asia.(2) Pulmonary Adenosquamous carcinoma is an uncommon histological variety of bronchogenic carcinoma, with a poorer prognosis than the more squamous cell carcinoma common and adenocarcinoma. Tumor Stage is higher at the time of diagnosis, and survival is poorer.(5) The characteristic of this tumor might be associated with intraluminal polypoid growth.(6) Adenosquamous carcinoma have histologic areas differentiated as both squamous cell carcinoma and adenocarcinoma and have clinical behavior more like that of adenocarcinoma.(7) After variable periods of growing with lung parenchyma or with the bronchial wall, primary tumors invade the vascular and lymphatic channels, thereby metastasizing to regional lymph nodes and distant sites. In most instances regional lymph node metastases precede

systemic dissemination. By direct extension, the primary tumor can invade contiguous structures such as the mediastinal pleura, great vessels, heart, esophagus, diaphragm or chest wall. Once a vascular or lymphatic invasion occurs, metastatic dissemination to distant sites is common. Whereas bone, liver, adrenal and brain are the most frequent sites of distant disease.(8)

Case presentation

We present a 65 years old woman with bulging in her left frontal site of the head. (Figure- 1) MRI showed a cystic mass and bone thickening in the left frontal bone. The patient also had dyspenea. On Chest radiography an opacity in right upper lobe (Figure- 2), then lung CT scan was done and showed a mass with poor defined border (Figure-3). Histopathological findings for the bronchoscopic biopsy specimen also revealed bronchogenic adenosquamous carcinoma. Second MRI with contrast showed a metastasis to skull that resulted in a lytic lesion in frontal bone and leakage of CSF from the skull (Figure- 4). For evaluating for other metastases a whole-body scan was done and showed left frontal bone lesion and increase of uptake in distal of right leg. The patient with diagnose of lung cancer with metastasis to the frontal bone treated with 4course of paclitaxol and carboplatin, Then referred to the surgical department for surgery. The mass was resected completely, and the patient is following every three months.

Conclusion

Metastasis of lung cancer to the skull is not a common manifestation of this tumor. However, as we showed, the only manifestation of lung cancer can be the metastatic complications of the tumor. A high index of suspicion is needed for early diagnosis in such cases. With the rising incidence of lung cancer, metastatic invasion from bronchogenic carcinoma must be considered in the differential diagnosis of all osteolytic lesions found in the bones.(9)



Figure-1. A 65 years old woman with bulging in her left frontal site of the head.



Figure- 2. On Chest radiography an opacity in right upper lobe.

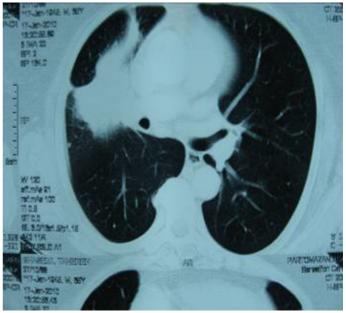


Figure- 3. CT scan showed a mass with poor defined border.

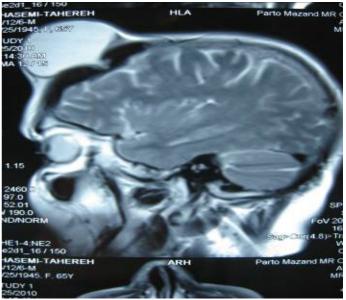


Figure- 4. MRI with contrast showed a metastasis to skull that resulted in a lytic lesion in frontal bone and leakage of CSF from the skull.

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