

Extreme Presentation of Bony Metastatic Disease

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A 60-year-old man presented with agitation and a forehead mass (Figs. 1 and 2). His wife had noticed its rapid growth over several weeks and said he had recently become extremely confused and hostile. He had a history of smoking and exposures to silica and Agent Orange. His vitals and oxygen saturation were normal. He was cachectic but in no distress, and although he was uncooperative, his examination did not demonstrate an obvious neurological deficit. Routine electrolytes were within normal limits.



FIGURE 1. Frontal view.

Noncontrast computed tomography of the skull revealed a $5.5 \times 5.4 \times 7.7$ -cm frontal soft-tissue density eroding his frontal bone and extending intracranially, with extensive displacement of both frontal lobes and invasion into his superior sagittal sinus (Fig. 3) and possible involvement of the brain parenchyma. A subsequent CT scan of the chest demonstrated a 7.8×7.9 -cm right mass in the lower lobe of the lung encasing the right pulmonary artery and 2 left renal masses.

Biopsy of the forehead mass demonstrated a necrotic, poorly differentiated carcinoma with focal clear-cell features. Immunohistochemical staining was consistent with squamous cell carcinoma.

The forehead mass was painless, and the lung mass unresectable. His behavioral changes persisted and were attributed to the tumor compressing and possibly invading both frontal lobes. At his wife's request, he was discharged on dexamethasone with home hospice and died 2 weeks later.

Although there is little literature on the epidemiology of skull metastases, the most common malignancies to metastasize to the skull are breast and



FIGURE 2. Side view.



FIGURE 3. Transverse CT section of the head and brain.

lung carcinomas. Others include prostate, thyroid, myeloma, and melanoma. Symptomatic metastases, including neurological findings, are unusual, except for tumors that metastasize to the skull base and cause cranial nerve deficits. Skeletal metastasis as the first manifestation of lung cancer occurs in about 2% of lung cancer patients and is a marker of poor prognosis.

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