Everything Points to Myeloma

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Figure 1. CT of head, demonstrating lytic lesion (arrow) in the right parieto-occipital region.

CASE

A 45-year-old man with a history of solitary plasmacytoma of the left hip, managed with surgery and radiation therapy 5 years back, was found to have new lytic lesions in his skull, discovered on an annual skeletal survey and confirmed by a head CT (Fig. 1). The patient had no major complaints, an unremarkable physical exam, and a mild anemia (Hemoglobin = 12 mg/dL). Due to concern for progression to multiple myeloma, the patient underwent a bone marrow biopsy, which revealed decreased hematopoiesis and 32 % myeloblasts,

Figure 2. Bone marrow aspirate (100x magnification), arrow pointing to myeloblast.

without evidence of a plasma cell dyscrasia (Fig. 2). Thus, a diagnosis of acute myeloid leukemia (AML) was made and induction chemotherapy was initiated.

Secondary malignancies, including AML, can occur in patients with plasma cell disorders and a history of radiation or chemotherapy, and are associated with a worse prognosis.¹ More than half of patients with solitary plasmacytoma eventually develop multiple myeloma, despite therapy.² The bone lesions, anemia and history of plasmacytoma in this patient were suspicious for multiple myeloma; however, AML can also present with lytic bone lesions.³ Bone marrow examination is essential in the evaluation of both multiple myeloma and AML.

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