Acute Myeloid Leukemia with Brain Involvement  
(Chloroma)

Ali Akhaddar¹, Mohammed Zyani², Mohamed Mikdame³ and Mohammed Boucetta³

Key words: brain, chloroma, granulocytic sarcoma, headache, myeloid leukemia

(DOI: 10.2169/internalmedicine.50.4807)

1Department of Neurosurgery, Mohammed V Military Teaching Hospital, Rabat, Morocco, ²Department of Internal Medicine, Avicenna Military Hospital, Rabat, Morocco and ³Department of Hematology, Mohammed V Military Teaching Hospital, Rabat, Morocco

Received for publication November 8, 2010; Accepted for publication November 24, 2010

Correspondence to Dr. Ali Akhaddar, akhaddar@hotmail.fr

Picture 1.
A 27-year-old patient presented with a two-month history of asthenia and frontal headaches. Clinically, he was conscious with a left hemiparesis and hepatosplenomegaly. He had anemia, thrombocytopenia and hyperleukocytosis in peripheral blood and increased blast cells in bone marrow. The morphology and cytochemistry were consistent with acute myeloid leukemia. Brain MRI showed a homogeneous high intense multilobulated right frontal mass on T1- and T2-weighted images with peripheral gadolinium enhancement and surrounding edema (Picture 1A-D). A stereotactic brain biopsy was performed. The histopathology demonstrated granulocytic sarcoma. Following systemic chemotherapy (daunorubicin-aracytin-imatinib), the patient recovered without deficit and was in complete remission for the 6-month follow-up.

Granulocytic sarcoma (chloroma) is a rare tumor composed of immature granulocytic cells at various levels of differentiation in extramedullary sites (1). Central nervous system involvement is unusual and commonly presents as meningeal leukemia via perivascular infiltration of the blasts through the arachnoid venules. Intracerebral localisation is very rare (2).

The authors state that they have no Conflict of Interest (COI).

References