Intracranial extramedullary hematopoiesis associated with multiple myeloma

A 77-year-old woman with multiple myeloma for 5 years presented with obtundation, drowsiness, and disorientation over 15 days. Complete blood count revealed thrombocytopenia (25,000/µL). A brain CT disclosed multiple extra-axial hyperdense foci without bone destruction. Differential diagnosis included tumors (meningiomas, leukemia), subdural hematomas, and intracranial hemorrhages; the lesion’s multiplicity and morphology were consistent with intracranial extramedullary hematopoiesis (IEH) (figure). Despite platelet transfusions, she died 2 days later of alveolar hemorrhage. Autopsy confirmed IEH and excluded erythropoiesis, reported in subdural hematomas. The formation of blood cells outside the bone marrow is usually related to anemia or lymphoproliferative disorders and is uncommon in multiple myeloma. IEH can cause seizures, hydrocephalus, or cognitive changes.

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Author contributions: Drafting/revising the manuscript for content: J.-A.P., P.D.D., M.R. Study concept or design: J.-A.P., M.R. Analysis or interpretation of data: P.D.D., M.R. Acquisition of data: P.D.D.

Study funding: No targeted funding reported.

Disclosure: The authors report no disclosures relevant to the manuscript. Go to Neurology.org for full disclosures.

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Neurology 2013;80;1620
DOI 10.1212/WNL.0b013e31828f1899

This information is current as of April 22, 2013