IMAGES IN CLINICAL MEDICINE

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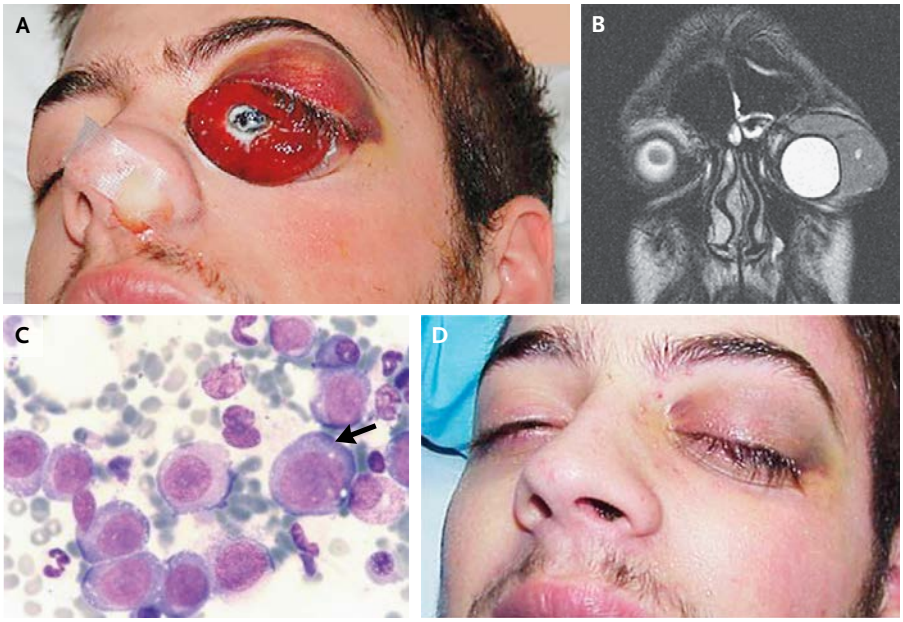
# Myeloid Sarcoma

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A 17-year-old boy presented with a 1-week history of proptosis of the left eye. Physical examination revealed a tumor involving the periorbital region (Panel A). Magnetic resonance imaging revealed an orbital mass (Panel B). Laboratory test results included a hemoglobin level of 89 g per liter, a platelet count of 90,000 per cubic millimeter, and a leukocyte count of 1100 per cubic millimeter. Morphologic examination of a bone marrow aspirate revealed 30% myeloblasts (Panel C, arrow). There were no circulating myeloblasts. A biopsy specimen of the orbital mass showed myeloid sarcoma. Myeloid sarcoma is a tumor composed of myeloid blasts that occurs at an extramedullary site. Myeloid sarcoma may occur on its own or concurrently with a myelodysplastic syndrome, myeloproliferative disease, or acute myeloid leukemia (AML), as seen in this case; on rare occasions, myeloid sarcoma precedes a diagnosis of AML by months or years. After the patient underwent induction chemotherapy, the mass disappeared and the eye returned to its normal position (Panel D). He subsequently underwent cord-blood transplantation, and at the 6-year follow-up, there was no evidence of recurrence of AML.

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