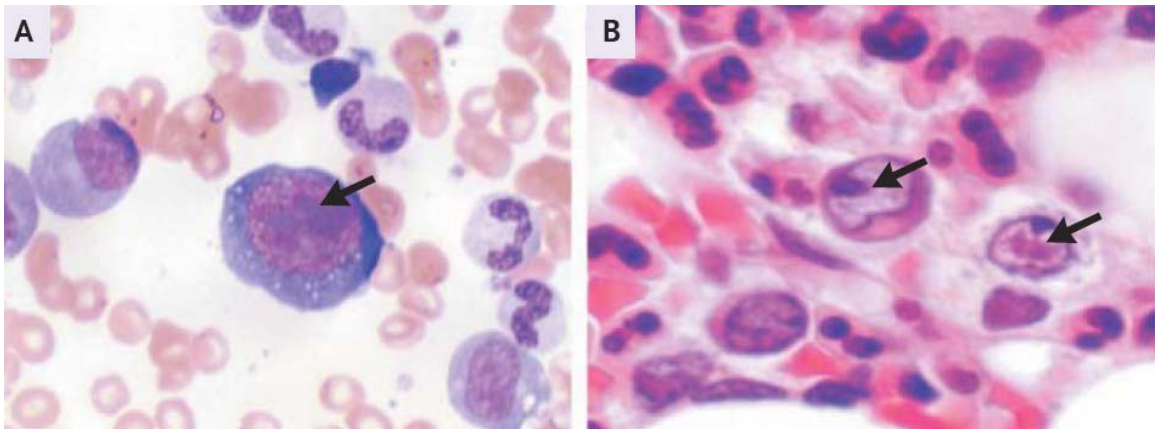
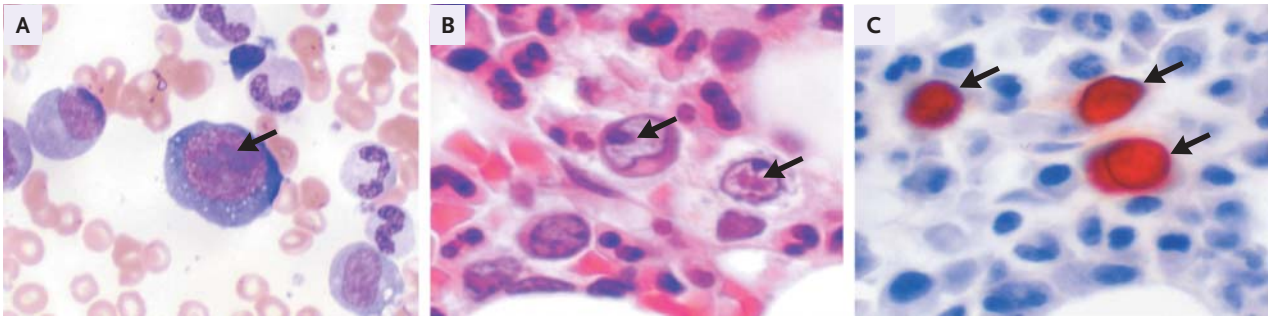


A 77-year-old man was admitted to the hospital with a three week history of nausea, vomiting, pain in the right upper quadrant, and fever with chills. Laboratory studies showed that the white-cell count was 6400 per cubic millimeter, the hemoglobin concentration was 9.0 g per deciliter, the hematocrit was 26.5 percent, the platelet count was 255,000 per cubic millimeter, and the reticulocyte count was 0.6 percent.

To evaluate the patient's anemia further, a bone marrow examination was performed; it revealed mild hypercellularity with trilineage hematopoiesis but with a reduced number of erythroid precursors. Evaluation of a smear of the bone marrow aspirate (Panel A; Wright's stain, x100) and a routine histologic examination of a core-biopsy specimen of the bone marrow (Panel B, x100) showed a population of giant pronormoblasts with prominent intranuclear inclusions (arrows in both panels). What is the diagnosis?

IMAGES IN CLINICAL MEDICINE

Parvovirus B19 Infection



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A 77-year-old man was admitted to the hospital with a three-week history of nausea, vomiting, pain in the right upper quadrant, and fever with chills. Laboratory studies showed that the white-cell count was 6400 per cubic millimeter, the hemoglobin concentration was 9.0 g per deciliter, the hematocrit was 26.5 percent, the platelet count was 255,000 per cubic millimeter, and the reticulocyte count was 0.6 percent. To evaluate the patient's anemia further, a bone marrow examination was performed; it revealed mild hypercellularity with trilineage hematopoiesis but with a reduced number of erythroid precursors. Evaluation of a smear of the bone marrow aspirate (Panel A; Wright's stain, ×100) and a routine histologic examination of a core-biopsy specimen of the bone marrow (Panel B, ×100) showed a population of giant pronormoblasts with prominent intranuclear inclusions (arrows in both panels), suggesting a diagnosis of parvovirus B19 infection. This diagnosis was confirmed by immunohistochemical analysis of the bone marrow core-biopsy specimen with R92F6 (Novocastra Laboratories), a monoclonal antibody that recognizes the VP1 and VP2 capsid proteins of parvovirus B19 in infected cells. Virally infected erythroid precursors were highlighted by an immunoperoxidase stain with R92F6 (Panel C, arrows, ×100). The patient's anemia gradually resolved without medical intervention.

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