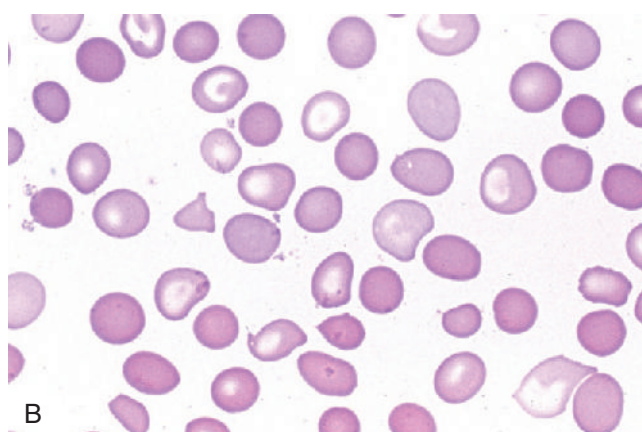
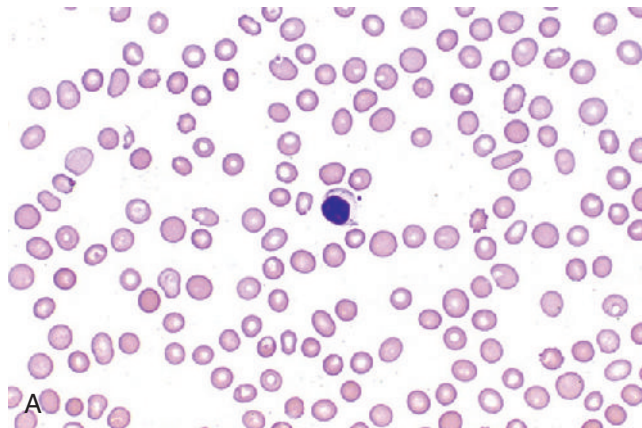
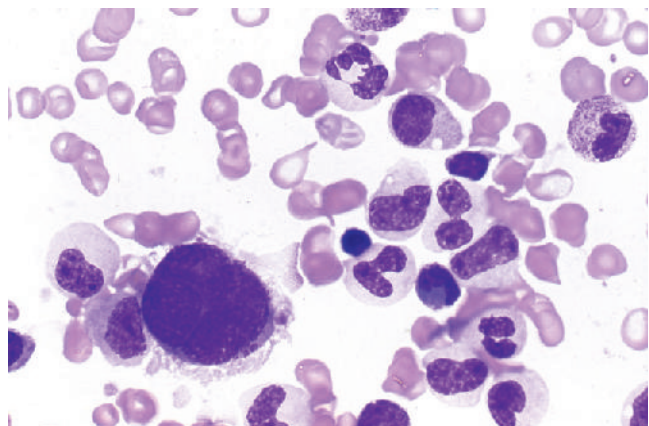


**E-FIGURE 45-1** Comparison of normal bone marrow (**A**) with empty bone marrow characteristic of aplastic anemia (**B**). Notice the differences in overall marrow cellularity. **A**, In the normal marrow biopsy, the fat-to-cell ratio is 50:50. Myeloid cells and megakaryocytes are positive for periodic acid–Schiff (PAS) stain, whereas hemoglobin-containing erythroid precursors are negative. The myeloid-to-erythroid ratio is 2:1. An iron-laden phagocyte (*upper right*) stains rust-brown. A small fragment of bone trabecular is seen (PAS stain,  $\times 100$ ). **B**, In the aplastic marrow biopsy (i.e., aplastic anemia), the fat-to-cell ratio is 95:5. Trilineage hematopoiesis is virtually absent, but rare lymphocytes remain. An osteocyte is embedded in normally calcified bone trabecular (PAS stain,  $\times 100$ ). (Courtesy Maurice Barcos, MD, PhD, Chief of Hematopathology, Roswell Park Cancer Institute, Buffalo, N.Y.)



**E-FIGURE 45-3** Peripheral blood findings in aplastic anemia. **A**, In pancytopenia, the peripheral blood smear shows marked leukopenia. A single lymphocyte with azurophilic cytoplasmic granules is seen. The large granular lymphocytes may cause granulocytopenia through the FAS–FAS ligand apoptotic system (Wright-Giemsa stain,  $\times 100$ ). **B**, In macrocytosis, the peripheral blood smear shows normochromic red cell anisopoikilocytosis and macrocytes (Wright-Giemsa stain,  $\times 100$ ). (Courtesy Maurice Barcos, MD, PhD, Chief of Hematopathology, Roswell Park Cancer Institute, Buffalo, N.Y.)



**E-FIGURE 45-2** Pseudo-Pelger-Huët abnormalities.