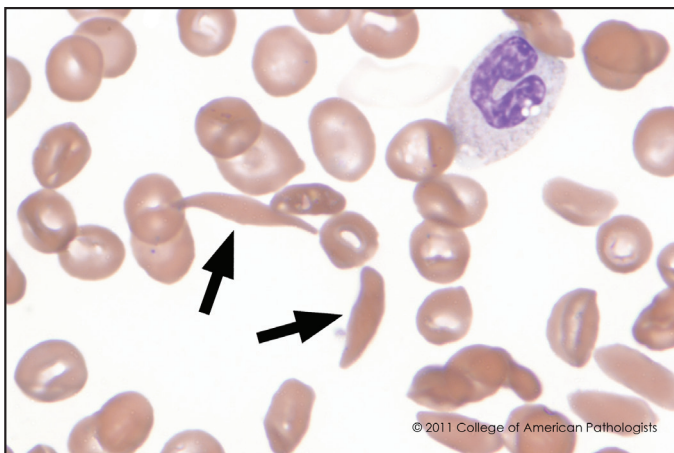


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Polychromatophilic Red Cell:

Appearance: Nonnucleated, round, or ovoid red cell staining homogeneously pink-gray or pale purple. Larger than a mature RBC and lacks central pallor.

Special features: Final stage of red cell maturation after exiting the bone marrow; contains mostly hemoglobin with a small amount of RNA. Can be stained as reticulocyte and enumerated using supravital stains or by automated instrument analysis.



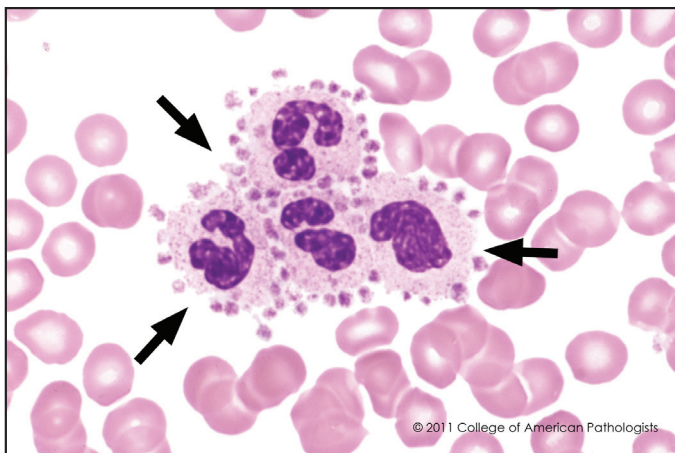
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Sickle Cell (Drepanocyte):

Appearance: Thin crescent with 2 pointed ends; other forms seen in sickle cell anemia include boat-shaped, filament-shaped, holly-leaf form, or envelope cells. Usually lacks central pallor.

Cause: Polymerization/gelation of deoxygenated hemoglobin S.

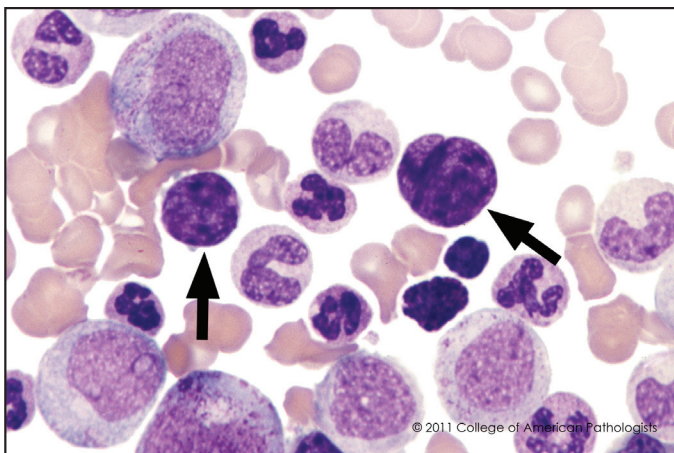
Special features: May be seen particularly in the absence of splenic function or after splenectomy in patients with sickle cell anemia, hemoglobin SC disease, SD disease, and S-beta-thalassemia.



Platelet Satellitism:

Appearance: Adherence of 4 or more platelets to a segmented neutrophil, band, or (rarely) monocyte. The morphology of the involved platelets and leukocyte is normal.

Special features: Also known as "platelet rosettes"; an in-vitro phenomenon due to the interaction of EDTA and immunoglobulin, which nonspecifically binds to platelets. Antibody-coated platelets then bind to the leukocyte surface. Platelets are not counted.



Megakaryocyte Nucleus:

Appearance: Most have a very high N:C ratio with a single or occasionally bilobed nucleus with characteristic smudged or "puddled" chromatin that has been likened to a "turtle's back." Most have a thin rim of cytoplasm with or without surface projections. When the cytoplasm is completely absent the cell can be recognized as a megakaryocyte by the chromatin pattern.

Size: Highly variable; generally 15–30 μm in diameter.