Pelger-Huet anomaly and pseudo (acquired) Pelger-Huet

The lefthand blood smear is from a middle-aged male having laboratory testing for an annual physical examination. He had never been ill. The CBC was normal except for a report of increased number of bands. The bilobed polymorphonuclear leukocyte (poly) seen represented approximately 60% of his neutrophils. In 1928 Pelger described the inherited bilobed nuclear abnormality, and Huet reported it a few years later. This benign anomaly is associated with coarse nuclear chromatin and no functional cellular defects. The heterozygote expression of this autosomal dominant disorder (found in 1 of 6000 births) results in bilobed polys; the very rare homozygotic disorder shows monolobed polys. This patient needs no special attention.

The righthand blood smear is from a patient with mild thrombocytosis. Note a similar bilobed poly as in Pelger-Huet, as well as a giant platelet. This bilobed poly was present in only a few of his white cells. Pseudo Pelger-Huet cells are acquired abnormalities commonly seen in hematology/oncology practice and are markers of underlying disorders, such as myelodysplasia, myeloproliferative disease including acute leukemia, certain drugs, and occasional acute infections. This patient was diagnosed with essential thrombocytemia.

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