

A case of pseudothrombocytosis

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A 33-year-old man was referred for investigation of thrombocytosis. Over the previous three months he had had two short, transient episodes of headache, visual blurring and paresthesia in the left eye and hand, which were thought to be correlated with a platelet count of $1,500 \times 10^9/L$. On examination he was well. At the age of 14 months he had been splenectomized because of severe hemolytic anemia with splenomegaly: a presumptive diagnosis of hereditary spherocytosis had been made. From then on, regular blood counts from several laboratories showed only one abnormality, that of platelet values fluctuating around the $900 \times 10^9/L$ level. The platelet count, as measured in our laboratory with a Coulter MAXM (Coulter Scientific, Miami, FL, USA), was $812 \times 10^9/L$; the peripheral blood film showed an extreme range and degree of red cell abnormalities with prominent microspherocytosis, micropoikilocytosis, red cell fragmentation and teardrop erythrocytes. Howell-Jolly bodies, a hallmark of the previous splenectomy, were also numerous (Figure 1). It should be noted that many small erythrocytes or fragments were the same size or smaller than platelets and were thus counted, since automated blood counters assess cell populations by their dimensions, as platelets, with a gross over-

stimulation of their real number. A manual count, done in triplicate in a Thoma counting chamber, revealed $512 \times 10^9/L$ platelets. A bone marrow biopsy showed a normal number of megakaryocytes, with normal morphology. This person's symptoms were attributed to thrombocytosis, when in fact he had a falsely elevated platelet count, or *pseudothrombocytosis*. Reported causes of falsely high platelet count have been described after extreme burn injuries,¹ in essential mixed cryoglobulinemia,² in the presence of numerous Howell-Jolly bodies or debris,³ but not in congenital hemolytic anemia.

The cause of the patient's neurologic symptoms remains obscure.

References

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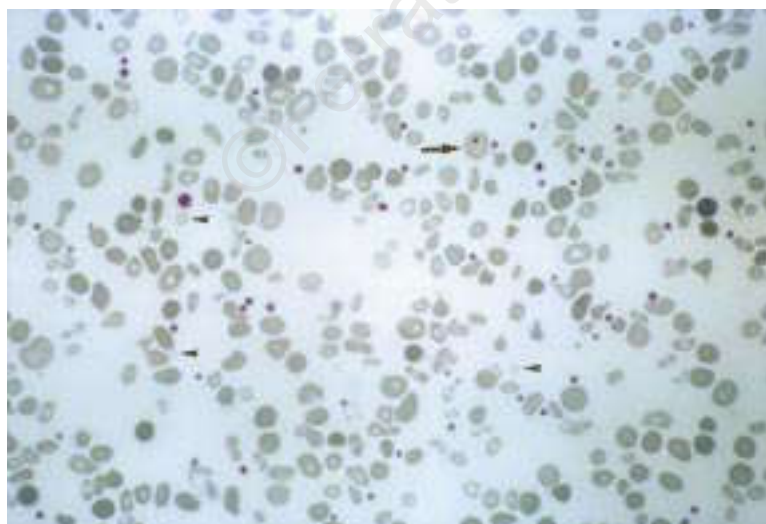


Figure 1. Peripheral blood (MGG, $\times 1200$). Extreme degree of anisopoikilocytosis, Howell-Jolly body (arrow); many small red cell fragments (triangles) are the same size as or smaller than platelets.