



AN UNEXPECTED DIAGNOSIS

KADOUDJA CHEMLAL,* VALÉRIE ANDRIEU-BEAUTRU,^o MARIE-JOSÉ GRANGE^o

*Department of *Internal Medicine and ^oDepartment of Hematology, Hôpital Bichat, Paris, France*

A 20-year-old woman was admitted for severe asthenia. Physical examination was normal except for pallor. Laboratory findings were as follows: Hb 6.2 g/dL, MCV 119 fL, leukocytes $9.2 \times 10^9/L$, neutrophils $4.75 \times 10^9/L$, lymphocytes $2.21 \times 10^9/L$, eosinophils $0.17 \times 10^9/L$, platelets $159 \times 10^9/L$, reticulocytes $66 \times 10^9/L$, nucleated red blood cells: 28%, lactic dehydrogenase level 13,300 U/L (normal value < 350). The peripheral blood film showed numerous dacryocytes (Figure 1). What is your differential diagnosis?

The presence of tear-drop shaped erythrocytes suggested a diagnosis of myelofibrosis; in fact, there was no splenomegaly and the MCV was very high and neutrophils were hypersegmented (Figure 2). Cytological study disclosed hypercellular bone marrow which was erythroblastic and megaloblastic with giant metamyelocytes, in keeping with a vitamin B₁₂ deficiency (Figure 3). A diagnosis of pernicious anemia was confirmed in our patient by the following results: vitamin B₁₂ deficiency (27 ng/mL, normal value >200), gastric atrophy, abnormal Schilling test and positive intrinsic factor antibody.

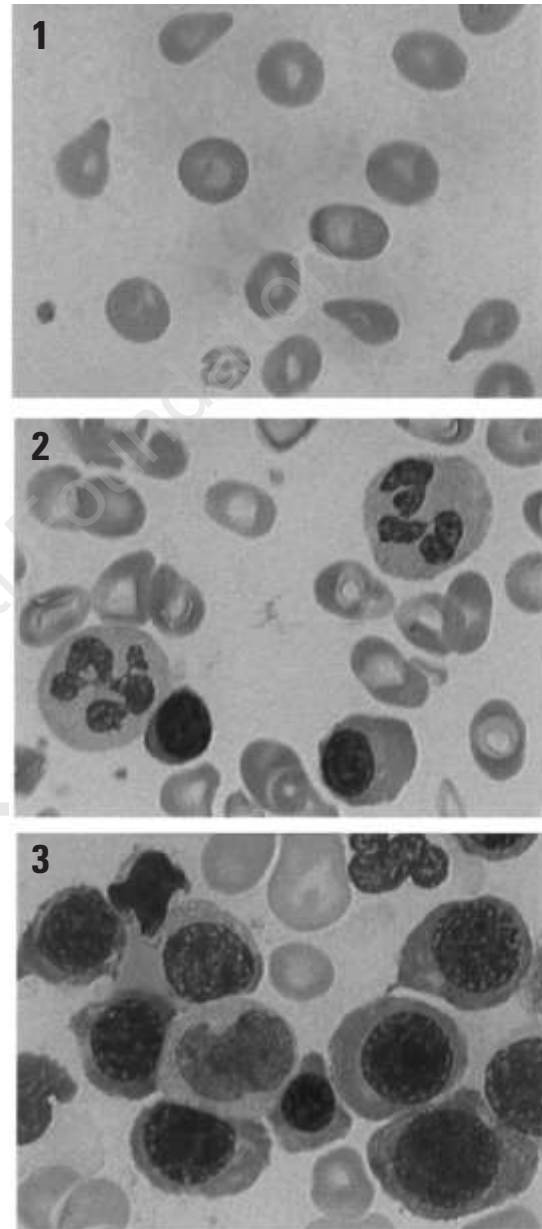


Figure 1. Peripheral blood: numerous dacryocytes.

Figure 2. Peripheral blood: hypersegmented neutrophils and nucleated red blood cells (RBC).

Figure 3. Bone marrow: megaloblastic erythroid series.