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CONTINUING MEDICAL EDUCATION
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Hematology Quiz – Case 39

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ΑΡΧΕΙΑ ΕΛΛΗΝΙΚΗΣ ΙΑΤΡΙΚΗΣ 2015, 32(2):252–253

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A 42-year-old woman was admitted to the hospital, because of persistent fever and severe anemia. The patient first presented fever approximately 30 days before her admission. Since then, she presented spikes of high temperature (39–40 °C) with rigor, almost every four days. The fever dropped spontaneously, with profound perspiration. During this period, she complained of severe fatigue and dyspnea during moderate physical effort. She had no cough or other symptoms or signs of localized infection. During the above period she sometimes had noticed a dark color of her urine. Her chest x-ray was normal, and the urine cultures were negative. A broad-spectrum antibiotic had been administered, without any improvement. Seven months ago the patient had presented with fever and neck pain. A diagnosis of Hashimoto's thyroiditis was made then, but she had not been given thyroid hormones substitution. In the last six months the patient was not feeling very well. She was feeling tired easily, and therefore she was relaxing several hours every day. She experienced a lack of energy, which was confirmed by her relatives, as well as there was a change of personality, becoming somehow depressive. She was also complaining of nocturnal cramps and pain in the upper and lower extremities. The patient was of Thailand origin, and she was working as a housekeeper. She had no particular nutritional habits.

On clinical examination, the patient appeared ill, with pallor and a lemon-tint icterus. Temperature was 38.3 °C, pulse was 105/min and respirations were 22/min. The blood pressure was 145/80 mmHg. Hair and skin appeared dry. Examination of mouth revealed a smooth tongue with one ulcer. In the neck examination the thyroid gland was enlarged. The liver was palpable, non-tender and smooth, and the spleen was also palpable, about 5 cm below the left costal margin. Neurologic examination revealed loss of positional sense in the index toes, and mildly reduced deep tendon, but no other major neurological sign.

Her hematologic picture was as follows: Ht 24%, Hb 7.9 g/dL, MCV 109 fL, reticulocytes 3%, WBC 2.400/μL (neutrophils 65%, some with hypersegmented nuclei, lymphocytes 20%, eosinophils 3%, monocytes 5%, metamyelocytes 4%, myelocytes 3%) and PLT 95.000/μL. Red cell morphology is shown in figures 1 and 2. BUN and creatinine were within normal limits. ESR was 96 mm/h, LDH 1.890 IU/L, ferritin 900 ng/mL, haptoglobin 0.1 g/L, serum vitamin B_{12} 300 ng/L, SGOT/SGPT 30/20 IU/L, bilirubin 4.6 mg/dL (conjugated 1 mg/dL), SAP 104 IU/L, γGT 36 IU/L. Serum electrophoresis revealed polyclonal hypergammaglobulinemia. Urine: hemoglobin +++, hemosiderin +. Bone marrow morphology is shown in figures 3 and 4. HIV antibodies were negative; HBsAg was negative.

The patient was started the appropriate therapy for her febrile disease, and hematinics per os for her anemia. One week later she was afebrile and a reticulocyte crisis was observed with a rapid increase of the hemoglobin level.

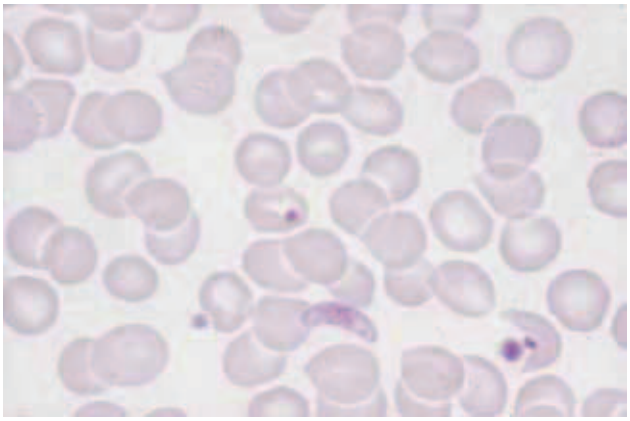

Figure 1

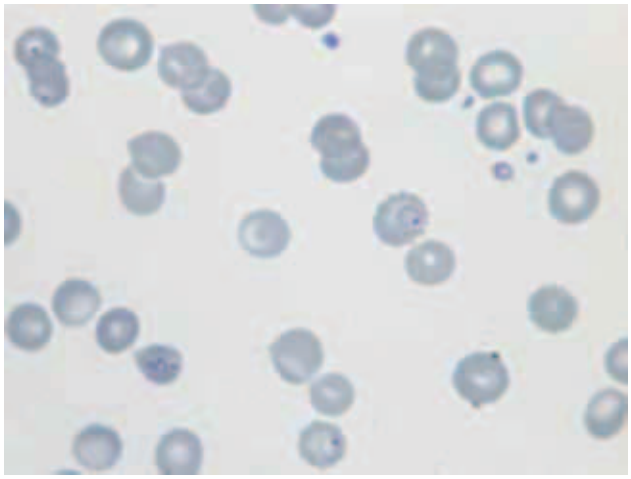

Figure 2

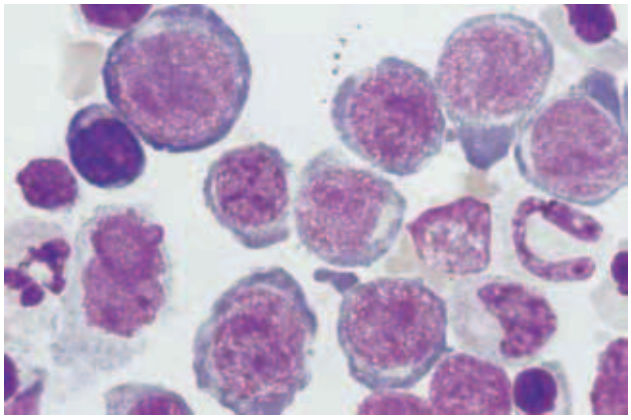

Figure 3

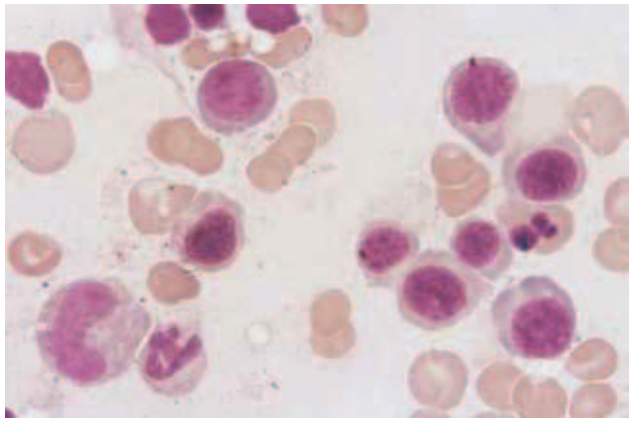

Figure 4

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Diagnosis: *Malaria; megaloblastic anemia (folic acid deficiency)*