Serous degeneration of the bone marrow

A 37-year old lady, previously well, presented with progressive weight loss of 10 kilograms, poor appetite and amenorrhea for six months. Physical examination showed that the patient was cachexic, with a body mass index of 18.5 kg/m^2. Secondary sexual characteristics were present. There was no lymphadenopathy nor hepatosplenomegaly. A full blood count revealed that hemoglobin was 11.9g/dL (NR: 11-15g/dL), platelet count was 172x10^9/L (NR: 150-400×10^9/L) and leukocyte count was 2.2x10^9/L (4-11x10^9/L) with a neutrophil count of 1.3×10^9/L. Serum B_{12}, folate and red cell folate levels were within normal limits. Bone marrow aspiration showed hypocellular particles with a background of amorphous purplish-pink material, indicative of serous degeneration (gelatinous transformation) (Figure 1A) and trephine biopsy showed hypoplastic bone marrow with replacement of both the fat and hematopoietic cells by amorphous material with a light-blue tinge and a finely granular appearance. (Figure 1B) Endocrine assessment revealed intact anterior pituitary gland function. She tested negative for anti-DNA and anti-nuclear factor antibodies with normal serum complement levels. Computed tomographic studies of the chest, abdomen and pelvis were normal. A diagnosis of anorexia nervosa was made subsequently after detailed psychiatric assessment.

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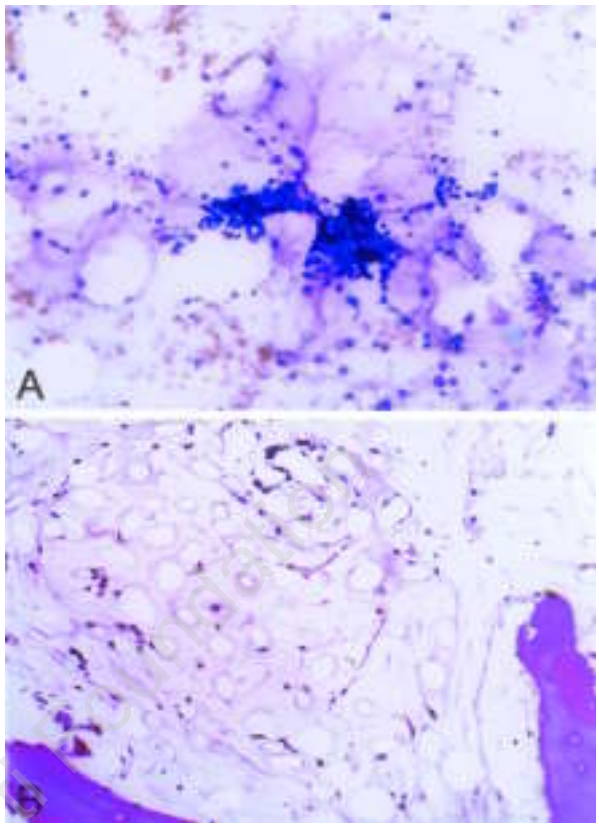

Figure 1A. Bone marrow aspirate showing hypocellular particles with a background of amorphous purplish-pink material, indicative of serous degeneration (gelatinous transformation); (Wright-Giemsa × 200). B. Trephine biopsy showing hypoplastic marrow spaces. Both the fat and hematopoietic cells are replaced by amorphous material with a light blue color and a finely granular appearance; (hematoxylin-eosin).