Pancytopenia due to pernicious anemia

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Abstract

A 57-year-old male presented with generalized weakness, fatigue, upper abdominal pain, anorexia, and a 30-pound weight loss in 6 months. He was found to have severe pancytopenia and low Vitamin B12 levels with elevated Parietal Cell Antibodies and antibodies against Intrinsic Factor. The following images depict his upper endoscopy findings and gastric tissue biopsy. After treatment with Vitamin B12 supplementation, the patient showed vast improvements in his white blood cell count, platelets, and hemoglobin.

Keywords: Pernicious anemia; Pancytopenia; Vitamin B12 deficiency; Type A chronic atrophic gastritis; Upper endoscopy; Gastric tissue biopsy.

Pernicious anemia increases the risk for neurologic complications and gastric carcinoma [3]. Treatment is lifelong with dosage adjusted by severity; generally Intramuscular (IM) loading treatment followed by oral supplementation [2]. Patient was initiated on IM Vitamin B12 therapy and three months later showed improvements in WBC at 6,000/μL, PLT at 187,000/μL, Hemoglobin at 14.4 gm/dL, and MCV at 88.7 fl.

References


Figure 1: Gross endoscopy photos of the stomach, remarkable for diffuse atrophic gastric mucosa in the gastric fundus, patchy erythematous mucosa in the gastric body, and localized nodular mucosa in the gastric antrum.

Figure 2: Endoscopic Tissue Biopsy photo of the stomach body, remarkable for intestinal metaplasia – replacement of stomach epithelium with intestinal epithelium – characterized by the goblet cells (red arrow), and chronic inactive inflammation (yellow arrow), evident by the infiltration of lymphocytes, plasma cells, and eosinophils characterized by the abundant small blue cells.