CLINICAL VIGNETTE

Significant Iron Deficiency Anemia in a 77-Year-Old Woman with Autoimmune Gastritis

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Case Presentation

A 77-year-old female with hypertension was referred to the emergency department for significant anemia noted on routine labs. The patient reported gradually worsening fatigue for the past two weeks. She also noted intermittent throbbing epigastric pain, relieved by eating. About twice a week she takes two ibuprofen tablets when the pain is particularly bad. Her bowel movements are normal, brown without melena, hematochezia, epistaxis, or any other bleeding. She has no known liver disease, nor food intolerance. She has never had colonoscopy, however, was up to date with colon cancer screening with fecal occult stool tests, last was within one year prior to this encounter. She takes no chronic medications other than as needed ibuprofen and denies alcohol use.

The patient was hemodynamically stable on presentation with an unremarkable physical exam. She was specifically nontender on palpation of all abdominal quadrants. Her initial laboratory findings were notable for a hemoglobin of 4.3 gm/dL with an MCV of 52.7 fL. Her platelet count was normal, and metabolic panel was unremarkable. Her ferritin was low at 1.4 ng/mL, iron level was low at 15 ug/dL, and her vitamin B12 level was elevated at 1533 pg/mL. Her intrinsic factor blocking antibody was positive and gastric parietal cell antibody IgG was elevated at 91.4 units. Gastroenterology was consulted and she underwent esophagogastroduodenoscopy and colonoscopy, which were only notable for gastritis and mild internal hemorrhoids. The duodenum had a normal endoscopic appearance. A gastric biopsy was taken, and pathology showed mild chronic gastritis without evidence of H. pylori, intestinal metaplasia, glandular dysplasia or malignancy. The patient responded well to transfusion 3 units of packed red blood cells. While hospitalized she received parenteal ferric gluconate 125mg daily for 5 consecutive days. Her hemoglobin and MCV improved to 9.9 gm/dL and 69.3 fL. Her fatigue resolved, and her hemoglobin remained stable for over 48 hours. The intrinsic factor blocking antibody and gastric parietal cell antibody were discussed in the context of her endoscopy findings. Gastroenterology's assessment was that these features likely reflected early autoimmune gastritis. No further inpatient testing was recommended by gastroenterology, and she was discharged home.

Discussion

Iron deficiency anemia can have many etiologies aside from blood loss. Iron is absorbed in the greatest amount in the duodenum, and disorders that impair duodenal absorption can lead to significant iron deficiency anemia.[1] The most common organic causes of malabsorption of iron include Helicobacter pylori infection, celiac disease, and autoimmune gastritis.[2] While autoimmune gastritis is classically associated with macrocytic anemia and B12 deficiency, pernicious anemia is a late stage finding of autoimmune gastritis.[3] Measurement of serum B12 levels can be falsely high in patients with pernicious anemia due to the presence of competitively binding intrinsic factor antibodies.[4] Like many autoimmune conditions, autoimmune gastritis afflicts women more than men, with an estimated 3:1 ratio.[5] The presence of iron deficiency anemia in autoimmune gastritis is also higher in females when compared to men.[6]

Conclusion

Iron deficiency anemia is a common feature of autoimmune gastritis, and pernicious anemia is a late stage finding of this disease. Patients especially women with a history suspicious of malabsorption as the etiology of iron deficiency should be evaluated for autoimmune gastritis.

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