

Iron deficiency Anemia and Schatzki's ring - An uncommon association!

Category: Medicine & Medical Specialties; Oral Presentation

Disclosure: The authors did not report any financial relationships or conflicts of interest

[Supplemental Video](#)

Presenting Author: Harminder kaur vohra, MD, Internal Medicine Resident PGY1, Department of medicine, North Alabama Medical Center, Florence, Alabama

Coauthors: Sangeetha Isaac, MD, Internal Medicine, PGY2, North Alabama Medical center, Florence, AL

Introduction: The triad of iron deficiency, dysphagia and esophageal web, also known as plummer vinson syndrome, though rare, has been reported. An esophageal web is a thin eccentric membrane covered with squamous epithelium that protrudes into the esophageal lumen causing focal narrowing. Schatzki's ring are circular membrane of mucosa and submucosa, located at Squamo-columnar junction of the esophagus. The association between iron deficiency anemia (IDA) and esophageal rings or webs is not clearly understood. We present here a patient with dysphagia, iron deficiency anemia and Schatzki's ring.

Case Report: An 80-year-old Caucasian female presented to our facility with multiple episodes of vomiting. Her past medical history included diabetes mellitus, hypertension and hypothyroidism. On presentation, she was hemodynamically stable, appeared fatigued but her examination was otherwise unremarkable.

Initial investigations showed hemoglobin 7.1 gm/dL, white blood cell $8.1 \times 10^3/\mu\text{L}$, platelet count $387 \times 10^3/\mu\text{L}$. She had acute kidney injury with blood urea nitrogen 124, creatinine 4.4 mg/DL. Rehydration therapy was commenced in view of dehydration. Anemia evaluation revealed, iron 81, TIBC 175 and Ferritin 215. Reticulocyte count was 3.1% (Ref 0.5- 2%). Peripheral blood smear revealed anemia with thrombocytosis suggestive of iron deficiency. B12 and folate levels were within normal levels.

Working diagnosis: With her advanced age, anemia of this severity was concerning for malignancy. Further questioning revealed that patient has had significant weight loss over past 3-4 months and dysphagia with sensation of food sticking and transiting slowly, occasionally had to push down with water, along with frequent food regurgitation. Gastroenterology consult was sought and patient underwent esophagogastroduodenoscopy, which revealed severe esophagitis, a Schatzki ring and a duodenal ulcer without stigmata of bleeding.

Management and follow up: The Schatzki ring was dilated to 18mm. Colonoscopy was normal. Post procedure, patient had significant relief of symptoms. She was discharged on pantoprazole and advised follow up in the gastroenterology clinic. On follow up her hemoglobin has improved to 11.7 gm/dL and she remains symptom free.

Learning Objectives

1. GERD has been thought to be cause of Schatzki's ring, it has been postulated that creation of the ring is body's response to frequent acid exposure and natural way of preventing the development of Barrett's esophagus. Studies have shown that Barrett's esophagus is less common when a Schatzki's ring is present.

2. Eosinophilic esophagitis and Hiatal hernia are two most common conditions associated with Schatzki's ring.

3. Diagnosis is done by Barium swallow. Asymptomatic patients need no treatment. Management of symptomatic patients include dilatation of the ring which could be done with Bougies or Pneumonic balloon dilator, excision with biopsy forceps, and often in combination with acid suppression therapy. Bougies can be used with a guidewire (Savory dilators), without a guidewire (Maloney dilators). Surgery is almost never required.