Refractory Case of Esophageal Web in a Male Patient with Alcoholic Liver Disease

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Refractory Case of Esophageal Web in a Male Patient with Alcoholic Liver Disease

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Case Presentation

We present a 69 year old white male with hemoglobin of 8.2 g/dL and complaints of decreased exercise tolerance, fatigue and mild dysphagia with mild weight loss.

- Past medical history of gastrointestinal bleed, alcohol abuse, alcohol liver disease.

- Laboratory studies revealed a macrocytic anemia (MCV 101) and iron deficiency (Ferritin 14) and heme positive stools.

- Esophagogastroduodenoscopy (EGD) with no bleeding source, but upper esophageal web difficult to traverse and pediatric endoscope utilized for dilation (image 1).

- Repeat EGD a month later for persistent dysphagia after oral iron therapy (image 2) with biopsies indicating necrosis and atypia.

- EGD with dilation 2 months later with only guide-wire (image 3) able to traverse and balloon dilation to 8mm.

- EGD a week later unable to dilate due to high risk of perforation (image 4). Patient scheduled to follow-up for surgical approach.

Discussion:

- PVS has multiple hypothesis linking development to autoimmune disorders, celiac disease, pernicious anemia, thyroid disease, inflammatory bowel disease, genetic disposition, malnutrition.¹⁻³

- Malnutrition with iron deficiency may induce esophageal mucosal to degrade leading to tissue injury, atrophy and remodeling.¹⁻²

- Vitamin B6 and B12 deficiencies have potential link to PVS.²

- Chronic alcoholism leads to chronic anemia with diverse etiologies.² (Table 2)

- Alcoholism can induce a nutritional deficient state. Laboratory studies alcoholics can be misleading as evolving cirrhosis leads to macrocytic anemia.

- Challenge in this case is the esophageal web is refractory to iron therapy and dilation.

- Alternative therapies include endoscopic incision, argon plasma coagulation, chemotherapy injections or surgical evaluation and diet modification.²

- Endoscopic surveillance is needed due to high risk of squamous cell carcinoma.¹

References:


Table 2. Spectrum of Anemia in Liver Disease

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<thead>
<tr>
<th>Etiologies of Anemia</th>
<th>Mechanisms</th>
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| Hemorrhage | Arterial blood loss from gastrointestinal sources
| Splenomegaly | Splenomegaly, portal hypertension, portal venous stasis
| Bone marrow suppression | Direct alcohol toxicity
| Alcohol | Malnutrition, alcohol liver disease

Table 1. Manifestations of PVS

| Esophageal webs | Dysphagia, Odynophagia, Weight loss |
| Anemia | Pallor, Tachycardia, Fatigue |
| Nutritional deficiencies | Angular cheilitis, Glossitis |

Images

Image 1. EGD showing esophageal web at the 15cm location. Only a partial scope was able to pass with successful dilation. No varicosities, prominent varices or masses were noted.

Image 2. Repeat EGD 3 weeks later shown circumferential, friable, ulcerated, nodular appearing masses of the 15cm mark with mucosal breaks. Biopsy revealed mild atrophic reactive hyperplasia.

Image 3. EGD performed 11 weeks later with initial EGD with web formation but recurrent dysphagia can only be traversed with guide-wire under fluoroscopy with minimal dilation achieved. Patient remained on oral iron supplementation 6-8 months.

Image 4. EGD performed 17 weeks after initial EGD for repeat dilation revealed an esophageal web thickened to nearly circular and unable to be traversed with even a guide wire. Rain for endoscopic greater than 15 hours needed of dilation.

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