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Case Study: 70-Year-Old Female Presents with plummer Vinson syndrome

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Abstract:

Plummer-Vinson or Paterson-Kelly syndrome presents as a classical triad of dysphagia, iron-deficiency anemia and esophageal webs. Exact data about epidemiology of the syndrome are not available; the syndrome is extremely rare. Most of the patients are white middle-aged women, in the fourth to seventh decade of life but the syndrome has also been described in children and adolescents. The dysphagia is usually painless and intermittent or progressive over years, limited to solids and sometimes associated with weight loss. Symptoms resulting from anemia (weakness, pallor, fatigue, tachycardia) may dominate the clinical picture.

Key words: Esophageal webs, iron deficiency anemia, dysphagia, malignancy

Introduction: Plummer-Vinson syndrome (PVS) is a rare condition characterized by the triad of iron deficiency anemia, dysphagia, and esophageal webs. It is also known as Paterson-Brown-Kelly syndrome and sideropenic dysphagia. Although it was first described as early as 1912, there is still limited knowledge about it due to the low and progressively decreasing incidence of the syndrome. It is more common among middle-aged

Caucasian females. It is also important to recognize the association of Plummer-Vinson Syndrome with esophageal and hypopharyngeal cancer.

Case Presentation

History of Present Illness: A 70-years-old white female presents after admission to the ENT ward hospital ward with a chief complaint of she developed throat blocking serrations, which was gradual in nature on eating solid, difficulty of swallowing. At that time, she was diagnosed with plummer Vinson syndrome.

Social History: Her tobacco use is 50years; however. She is in a married, and has three children aged 45 years.46years and 35 years. She is employed in a farmer.

Allergies: No known medicine, food, or environmental allergies.

Past Medical History: No past medical history

Past Surgical History: No past surgical history

Medications: Lisinopril 10 mg by mouth every day

Physical Exam:

Vitals: Temperature, 97.8 F; heart rate 88; respiratory rate, 22; blood pressure 130/86; body mass index, 28

General: She is well appearing but anxious, a pleasant female lying on a hospital stretcher. She is conversing freely,

Respiratory: She has normal breathing pattern.

Cardiovascular: She has a regular rate and rhythm with no murmurs, rubs, or gallops.

Gastrointestinal: Bowel sounds X4. No bruits or pulsatile mass.

Laboratory Studies: Initial work-up from the emergency department revealed pancytopenia with a platelet count of 74,000 per mm3; hemoglobin, 8.8 g per and mild transaminase elevation, AST 90 and ALT 112. Blood cultures were drawn and currently negative for bacterial growth or Gram staining.

Endoscopy dilatation:

Impression: Esophagus web- dilatation done using sg dilators 12.8&14

Differential Diagnosis

- Reflux Esophagitis,
- Esophageal Carcinoma,
- Systemic Sclerosis,
- Esophageal Spasm,
- Pseudoachalasia,
- Stroke,
- Esophageal Candidiasis
- Chagas Disease.
- Heterotopic gastric mucosa with stricture
- Pill-induced stricture
- Hypopharyngeal bar
- Inflammatory conditions associated with webs, such as chronic graft versus host disease, blistering skin diseases, etc.,

Diagnosis

Is based on the evidence of iron-deficiency anemia and one or more esophageal webs in a patient with postcricoid dysphagia. Esophageal webs can be detected by barium swallow X-ray but the best way for demonstration is the video fluoroscopy.

Management

Medical management of Plummer-Vinson syndrome includes iron supplementation. Occult or overt blood loss is generally ruled out, along with any underlying malignancies or iron mal absorption. Iron replacement is essential to correct anemia and to resolve most of the features associated with iron deficiency.

Dysphagia in many patients resolves with just iron supplementation. However, dysphagia caused by more advanced disease is unlikely to respond to medical management alone and, thus, is managed with endoscopic dilation. Finding out the underlying cause of iron deficiency is crucial as it will require special treatment, such as celiac disease. Aside from iron replacement, dietary modification is sufficient in mildly symptomatic patients.

Patients should be advised to eat slowly and chew thoroughly. Solids should be prepared and cut into small pieces, especially meats. Surgery is rarely indicated and is reserved for those whose webs are unmanageable with dilation or associated with Zenker diverticulum.

Complications

- Untreated esophageal webs can lead to dysphagia for solids, absolute dysphasia, and aspiration pneumonia.
- Iron-deficient patients may develop symptomatic anemia (fatigue, malaise, dyspnea, angina pectoris) if iron supplementation is not provided.
- Patients may develop squamous cell cancer of the proximal esophagus, although the actual risk is unknown.
- Endoscopic treatment of the esophageal web with Savary dilatations or balloon dilatations can be associated with a small risk of esophageal perforation.

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