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Esophageal Web: Unusual Cause Of Dysphagia In Middle Aged Male.

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CLINICAL HISTORY: 45 year old male patient presents with dysphagia for solid foods and oral medications since 4 months. Dysphagia is gradual in onset and slowly progressive. Subject is recently diagnosed type II diabetes mellitus on oral medication. No significant history of weight loss. General physical examination and systemic examination were normal.

IMAGES:

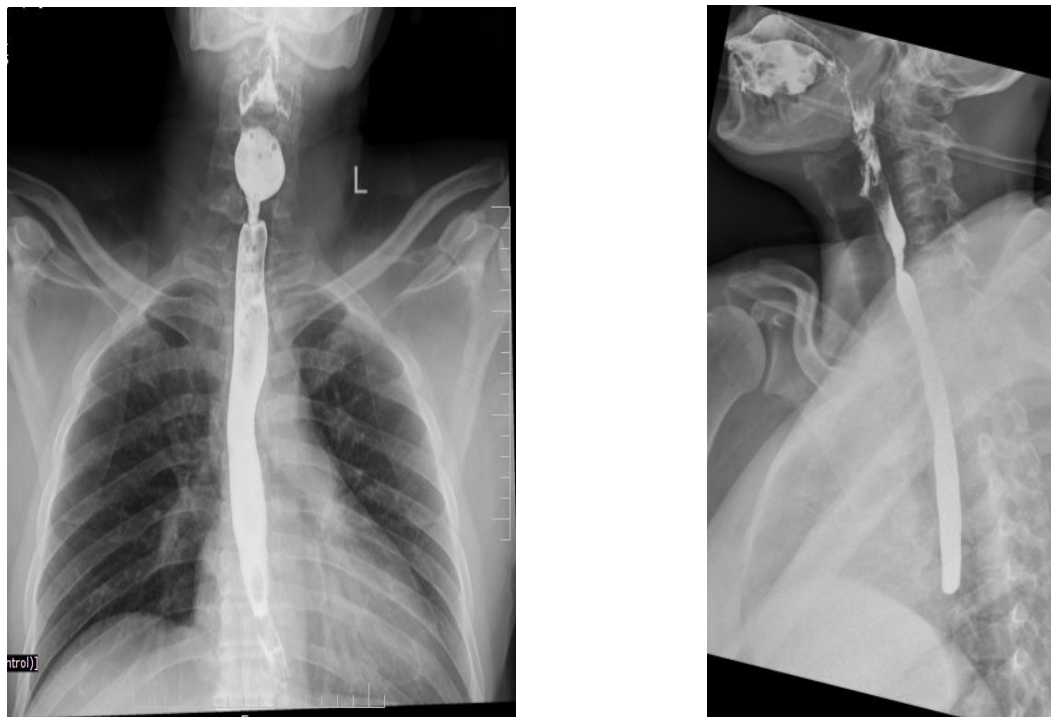


Figure 1: Barium swallow anteroposterior and lateral views demonstrating smooth circumferential short segment narrowing of cervical esophagus at C5 and C6 vertebral level.

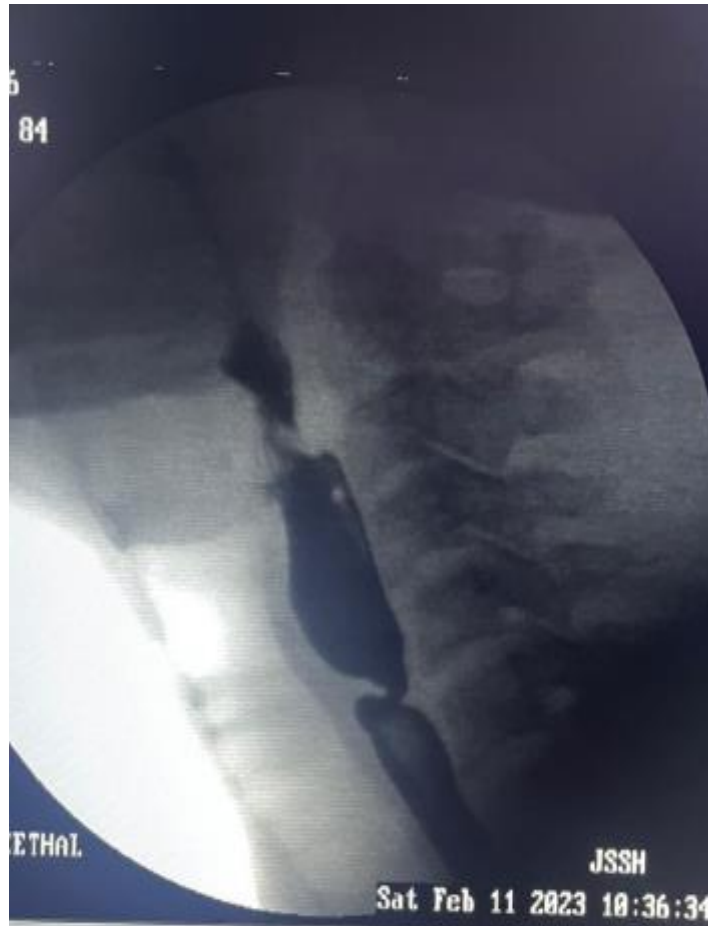


Figure 2 : Barium swallow video-fluoroscopic lateral projection spot image demonstrating smooth circumferential short segment narrowing of cervical esophagus at C5 and C6 vertebral level.

IMAGING FINDINGS:

Single contrast barium swallow was performed with thick barium sulphate suspension that is barium sulphate suspension with barium sulphate powder (Figure 1). Anterior-posterior and lateral projection video-fluoroscopy was performed with spot images (Figure 2). Supine on table images are obtained for thoracic oesophagus and gastro-oesophageal junction.

Upper cervical oesophagus demonstrated short segment smooth circumferential narrowing for approximate length of 10 mm. Mild upstream dilatation of rest of the cervical oesophagus is noted. The jet effect, which is the passage of a bolus of barium distally to the web in the form of a jet, was observed using video fluoroscopy. Rest of the oesophagus showed normal mucosal outline and contractions. Gastro-oesophageal junction was normal.

Post imaging patient was referred for endoscopy and imaging findings were confirmed. Patient was subjected to endoscopy guided balloon dilatation.

DISCUSSION:

Introduction:

Esophageal webs are ring like mucosal constrictions in the cervical esophagus lined by squamous epithelium. Can be congenital or acquired. Middle-aged women tend to have more esophageal webs¹. Most of the patients are asymptomatic and incidental findings. Once the web results in more than 50% luminal constriction, patients start to exhibit symptoms of dysphagia and regurgitation of food¹.

Location:

Esophageal webs are located in the cervical esophagus anteriorly at the level of cricopharyngeous muscle (at the level of C5-C6 vertebral disc). Webs most likely to arise from the anterior wall of the esophagus or to a little extent circumferential, but never from the posterior wall. Rarely multiple webs can be demonstrated¹.

Associations: Most of the esophageal webs are idiopathic. The following are some of the associations with esophageal webs².

- a. Plummer Vinson syndrome/ Patterson- Kelly syndrome or sideropenic dysphagia : most often seen in female patients with iron deficiency anaemia, stomatitis, Glossitis, thyroid and nail disorders.
- b. Epidermolysis bullosa dystrophica
- c. Graft versus host disease.

Imaging: Barium swallow is the investigation of choice. They are depicted as thin transverse filling defect of 1 to 3 mm in thickness arising from the anterior wall of cervical oesophagus at C5-C6 disc level. Rarely webs are circumferential. The 'Jet effect' can be observed with video-fluoroscopy in tight strictures by noticing a jet of barium crossing the narrowed segment into the distal oesophagus^{1,2}.

Differential diagnosis:

1. Submucosal venous plexus: Normal anatomical structure seen anteriorly as irregular mucosa.
2. Cricopharyngeal bar: Prominent cricopharyngeus muscle seen as smooth posterior indentation of the oesophagus at C5-C6 level³. Associated with gastro-oesophageal reflux disease.

Treatment and prognosis:

Balloon dilatation and bougienage during endoscopy is treatment of choice¹. Oesophageal webs are associated with increased risk of upper oesophageal cancer.

References:

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