Post Cricoid Web Excision

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Introduction

Post cricoid web is rare in males when compared to females. Females present with oesophageal web as part of Plummer Vinson syndrome. The web causes dysphagia, initially intermittent, but later constant with no other symptoms. A differential diagnosis of dysphagia has to be taken into account while investigating the web as cause of dysphagia.

Case Report

A 51 year old, father of serving soldier presented in end of June 2006 with history of difficult in swallowing, more for solids than liquids for the past three years. The dysphagia was insidious in onset and progressive in nature. He gave history of oral ulcers for the past 4 years. While drinking liquids, patient complained of hearing a gurgling sound in throat. He gave no history of significant loss of weight or any enlargement of glands. He did not give history of haematemesis, melena or chest pain. He complained of lethargy and inability to carry on with his profession (farming) as he got tired early doing his work. He is a nonsmoker, occasional drinker and a known tobacco chewer for the past 10 years.

Clinical examination revealed him to be anemic with pallor, angular stomatitis, glossitis and koilonychia (Figs.1,2). His fiber optic laryngoscopy was normal. Hemogram showed haemoglobin 8.8 gm%, packed cell volume 34%, mean corpuscular volume 62 fl and mean corpuscular haemoglobin concentration of 27%. On peripheral blood smear examination, he had microcytic hypochromic anemia with polychromatic red cells. Other biochemical parameters including liver function tests were within normal limits. His barium swallow was an essentially normal study his radiograph of chest and abdomen were normal. Upper GI flexible oesophagoscopy done in civil was reported as normal. A direct oesophagoscopy revealed a transparent post cricoid web seen 15 cm from the incisor teeth obscuring more than 75% of the lumen originating from the posterior and lateral wall (Fig.3). The oesophagoscope could not be negotiated beyond the cricopharynx. Excision of post cricoid web was taken up. An 8.5 mm rigid oesophageal speculum was passed

and the web was completely excised by using MLS scissors (Fig. 4). Full length oesophagoscopy was performed thereafter and no other abnormality was detected. Patient resumed his normal food habits on first post operative day. He was prescribed iron tablets on discharge and he is on regular follow up.

Discussion

The combination of dysphagia, hypopharyngeal and oesophageal webs, weight loss and iron deficiency anemia in women aged 30 to 50 years was first reported in U.S. by Plummer in 1914. Vinson elaborated the same in 1922[1]. In Europe in 1919, Paterson Brown described a similar entity [2]. In 1939, Waldenstorm referred to this syndrome as Sideropenic dysphagia. Most of Europe, North and South America had also similar case reports [3]. It is still common in US, Sweden and Wales. 85% of patients are women.

Initially, dysphagia is intermittent and later it becomes constant. Patients accept this and continue to modify their diet to softer food. If this disorder is recognized early-bougienage, iron replacement and vitamin therapy reverse the disease process. Later fibrosis secondary to chronic inflammation, webs and irreversible long strictures develop. Additional findings include loss of teeth, development of cheilosis and glossitis with atrophic scarring of mucosa of tongue and pharynx. It may be associated with splenomegaly, hepatomegaly and achlorhydria.

Oesophageal webs are thin diaphragm like membranes of squamous mucosa that typically occur in mid or upper oesophagus and may be multiple. They may be congenital but also occur with graft versus host disease, pemphigoid, epidermolysis bullosa, pemphigus vulgaris and rarely in association with iron deficiency anemia (Plummer Vinson syndrome) [4].

Radiologic examination by barium swallow with full oesophageal distension usually reveals a hypopharyngeal web most commonly in low hypopharynx or area

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Fig. 1 : Photograph showing koilonychia

Fig. 2 : Photograph showing angular stomatitis

Fig. 3 : Direct oesophagoscopy showing post cricoid web

Fig. 4 : Excision of post cricoid web

between post cricoid and thoracic oesophagus. The web is initially anterior but later circumferential.

Most webs are over 20 mm in diameter and are asymptomatic. Asymptomatic hypopharyngeal webs are seen in less than 10% of normal individuals. Characteristically, dysphagia is intermittent and not progressive. Large poorly chewed food boluses usually cause symptoms. Obstructing bolus may pass by drinking extra liquids or after regurgitation.

Early iron replacement, vitamin B replacement and dilatation can prevent the complications. Majority of symptomatic patients with single web can be effectively treated with passage of a large (>16 mm dia) bougie dilator to disrupt the lesion. A single dilatation may suffice but repeated dilatations may be required in many patients. Patients may need acid suppressive therapy [5,6].

Benign syndrome with post cricoid carcinoma is usually seen in females as compared to males at a ratio of 4:1[7]. The malignancy begins just proximally to the web, possibly because of chronic irritation. In US, because of decreased incidence of this syndrome, post

cricoid carcinoma is becoming more common in men.

Conflicts of Interest

None identified

References

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