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Case Report

A case of intramural esophageal dissection in a patient with esophageal web

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Abstract

A 50 year female presented with dysphagia for 2 months and she denied pain during swallowing, retrosternal pain, drooling of saliva, nasal regurgitation, cough, breathlessness, hoarseness of voice, abdominal pain, vomiting, loss of weight or loss of appetite. Upper gastrointestinal (UGI) endoscopy revealed a web at 17 cm from incisors. Post endoscopy patient developed pain over the upper abdomen which worsened during swallowing and breathing. Because of rapid development of these symptoms we suspected esophageal perforation/dissection. Complete blood picture suggestive of neutrophilic leukocytosis and other parameters were normal. Thin barium study showed pseudo lumen in esophagus and confirmed the diagnosis of esophageal web with esophageal dissection. Patient was treated conservatively with nil per oral and parenteral fluids and antibiotics. Web was dilated after 2 weeks with Salivary-Gilliard dilators and procedure was uneventful and oral feeding was initiated.

Key words

Intramural esophageal dissection, Esophageal web, Endoscopy.

Introduction

Intramural esophageal dissection (IED) is a rare clinical entity involving a mucosal injury and creation of a true and false lumen within the esophagus. Intramural esophageal dissection (IED) was originally described as intramural rupture of the esophagus by Marks and Keet in 1968 [1]. Other names for IED are intramucosal esophageal dissection, esophageal apoplexy, and sub mucosal hematoma. The most common presenting symptoms are chest pain, dysphagia, and hematemesis. The diagnosis is made by upper GI endoscopy, contrast studies or computed tomography of the chest. Conservative management has proved to be effective. Here we are reporting a case of intra

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mucosal esophageal dissection in a patient with esophageal web after attempting an endoscopy.

Case report

A 50 year female presented with dysphagia of 2 months, more for solids. However she denied pain during swallowing, retrosternal pain, drooling of saliva, nasal regurgitation, cough, breathlessness, hoarseness of voice, abdominal pain, vomiting, loss of weight or loss of appetite.

On examination, there was no pallor, icterus, cyanosis, clubbing, pedal edema or lymph adenopathy. Vitals were stable. Abdominal examination was normal, other systems were normal.

Upper gastrointestinal (GI) endoscopy revealed a web at 17 cm from incisors (**Figure - 1**), but scope could not be passed beyond. Post endoscopy patient developed pain over the upper abdomen which worsened during swallowing and breathing. Because of rapid development of these symptoms we suspected esophageal perforation/ dissection. Complete blood picture suggestive of neutrophilic leukocytosis (19,700 cells/cumm). Platelet count and other coagulation parameters were normal. Abdominal ultrasound was normal. ECG showed normal sinus rhythm. Thin barium study showed pseudo lumen in esophagus (**Figure – 2, Figure - 3**) and confirmed the diagnosis of esophageal web with esophageal dissection. Patient was treated conservatively with nil per oral and parenteral fluids and antibiotics. As the web prevented adequate oral intake, a feeding jejunostomy was placed. Web was dilated after 2 weeks with SG dilator and procedure was uneventful and oral feeding was initiated.

Discussion

IED is a rare clinical entity characterized by a mucosal injury and creation of a true and false lumen in the esophagus, conceptually similar to an aortic dissection [3]. It is commonly seen in elderly women on anti coagulation in their seventh or eighth decade [2]. However it can occur spontaneously after an endoscopy procedure/ intervention. It is thought that IED either results from a mucosal tear that leads to dissection of the sub mucosa or from a sub mucosal dissection (commonly from sub mucosal bleeding) that leads to a mucosal tear [2]. Diagnosis is by a combination of radiological and endoscopic methods. Barium swallow is sufficient to demonstrate the characteristic double-barreled lumen; endoscopy may demonstrate the hematoma, or even directly visualize the two lumens. IED is usually managed conservatively with pain control, proton pump inhibitors, nothing by mouth, and IV hydration. Most patients will return to oral intake within 2 to 3 days [3]. Novel endoscopic techniques like stents being employed in extensive circumferential dissections, and endoscopic needle-knife incision for relieving complete obstruction secondary to total membranous occlusion of the lumen [4] are described. IED is usually thought of as a contained injury without extraluminal esophageal perforation. A meta-analysis of IED done in 1997 found no reported cases progressing to complete esophageal perforation [3]. However a case reports in 2008 and 2013 [2] reported extraluminal perforation consisting of air leakage during endoscopically diagnosed IED.

Figure – 1: Endoscopy showing esophageal web.

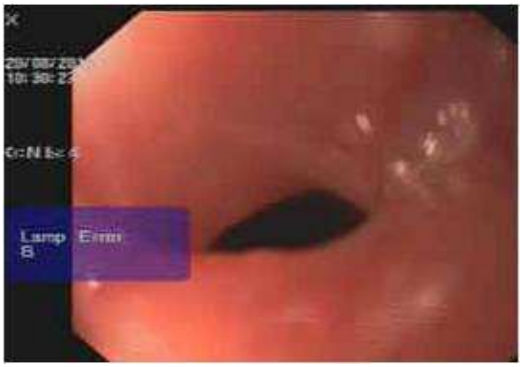

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Figure – 2: Barium swallow study showing linear lucency noted on right lateral wall extending from C7 vertebra level to lower esophagus (thin red arrows) suggestive of esophageal dissection. Air in the mediastinum (broad arrow) present which suggestive of contained perforation.

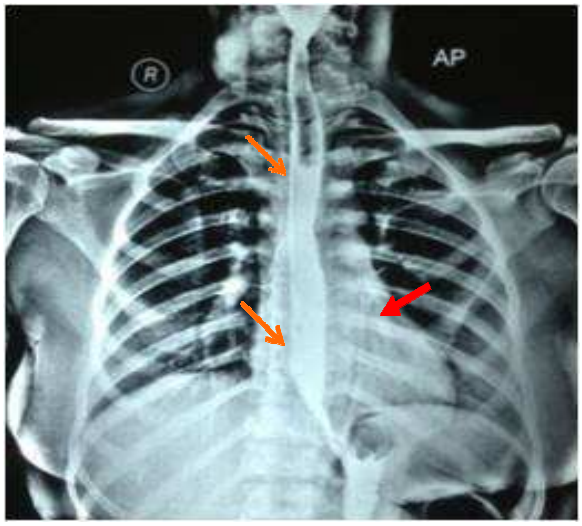
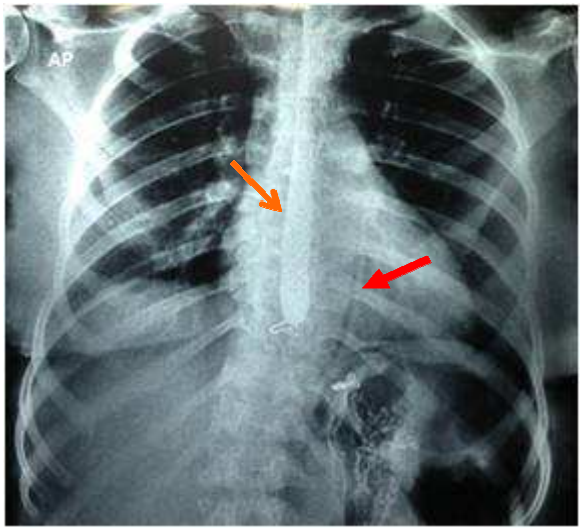


Figure – 3: Pooling of contrast is noted on delayed film as blind loop (thin arrow). Air in the mediastinum (broad arrow) present which suggestive of contained perforation.



Conclusion

IED is a unique complication that can occur spontaneously, after diagnostic endoscopy and therapeutic procedures. All endoscopists should be aware of it. Stable patient with contained perforation can be managed conservatively.

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