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Pill Induced Esophagitis With Oesophageal Web – A Rare Cause Of Dual Dysphagia

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Abstract
Introduction: *Dysphagia term has been made up of two words i.e. dys means difficult and phagia means to swallow, so it is difficulty in swallowing which is frequently encountered health problem and lies in domain of Gastroenterologist. There are many causes for it and include oesophagitis, malignancy, oesophageal webs, pill induced esophagitis, globus hystericus and foreign body ingestion. In rare instances, there can be dual aetiologies which have to be suspected on clinical basis and confirmed by endoscopy.*
Case Report: *A thirty-year-old female, not a known case of any chronic illness presented with intermittent dysphagia for last one year and acute onset of dysphagia and odynophagia for last four days. She gave history of taking doxycycline and metronidazole tablet which was prescribed by her gynaecologist for cervicitis. She took these tablets at bed time and immediately went to sleep but after few minutes felt that something has stucked in her food pipe. She developed odynophagia from next morning and remained on liquid diet for four days and then reported in Medical Gastroenterology department. On history and clinical presentation, working diagnosis of odynophagia was kept, most likely due to pill induced Esophagitis was kept and on subjecting to endoscopy, ulcer with ragged ends and oedematous mucosa in mid oesophagus and double oesophageal web in lower oesophagus which was dilated with endoscope. She was put on syrup sucralfate two teaspoonfuls thrice daily and started accepting semi-solid diet after two days and solid diet after gap of five days with complete relief from odynophagia.*
Conclusion: *Pill induced oesophagitis and oesophageal web are known causes of dysphagia or odynophagia but simultaneous involvement is uncommon. The clinical history raises suspicion and it has to confirmed by endoscopy. A good diagnosis is basic requirement for effective management.*
Keywords: *Pill induced Esophagitis, Oesophageal Web, Dysphagia, Odynophagia, Endoscopy, Doxycycline*

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I. Introduction-

Dysphagia term has been made up of two words i.e. dys means difficult and phagia means to swallow, so it is difficulty in swallowing and is a common medical problem having many aetiological factors, including oesophageal injury **[1-8]**. Odynophagia means painful swallowing and one of the important but uncommon cause is Pill induced oesophagitis, for which numerous frequently used medications have been implicated and include iron salts, doxycycline etc. The estimated incidence of pill induced esophagitis is 3.9 per 100,000 populations per year with a mean age at diagnosis of 41.5 years **[9-10]**. The exact reason of its higher prevalence in women is unknown. Pill-induced esophagitis usually occurs at anatomical sites of oesophageal narrowing like at the level of the aortic arch (76 percent) due to extrinsic compression and physiologic reduction in the amplitude of the oesophageal peristaltic wave **[9]**. Sucralfate is mainstay of treatment and acts by coating, protecting, and promoting healing of ulcerated oesophageal mucosa **[11]** but in few cases temporary parenteral feeding and dilatation of resultant oesophageal stricture may be required **[12]**. It is mandatory to identify and discontinue the offending drug **[13-14]** and properly advising the patient for future prevention **[15]**. One of the most common causes of prolonged, intermittent dysphagia in young females are oesophageal web which is a thin smooth extension of normal oesophageal tissue consisting of mucosa and submucosa that can occur anywhere in the oesophagus but usually located in the cervical segment. The webs can be congenital or acquired and are seen in association with Plummer-Vinson syndrome, celiac disease, skin disorders or graft-versus-host disease.

II. Case Report-

A thirty-year-old female, without any history of past illness, including ingestion of corrosive substance, presented with intermittent dysphagia for last one year and acute onset of odynophagia for last four days. She first noticed dysphagia one year back and it was intermittent and usually to solid foods, for which she consulted general practitioner who put her on proton pump inhibitor and pro-kinetic combination. There was no relief in her symptoms but as there were no alarming symptoms like blood in vomiting or weight loss, so she was not investigated further, thinking on lines of globus hystericus. She gave four days history of taking doxycycline and metronidazole tablet which was prescribed by her gynaecologist for cervicitis. She took these tablets at bed time and immediately went to sleep but after few minutes felt that something has stucked in her food pipe. She took more water and but had discomfort throughout the night. She developed odynophagia from next morning and remained on liquid diet for next four days and then was referred for consultation to our Medical Gastroenterology department. On history and clinical presentation, working diagnosis of chronic intermittent dysphagia and acute odynophagia, most likely due to pill induced Esophagitis was kept. As patient was already in fasting state, she was subjected to endoscopy which revealed a large ulcer extending for 2 cm, with ragged ends and oedematous mucosa in mid oesophagus and double oesophageal web in lower oesophagus which was dilated with endoscope. She was put on syrup sucralfate two teaspoonfuls thrice daily and started accepting semi-solid diet after two days and solid diet after gap of five days with complete relief from odynophagia. She was re-evaluated after a gap of one month and was totally asymptomatic and has been advised for reporting back, in case of dysphagia in future, as oesophageal webs are known to reoccur.

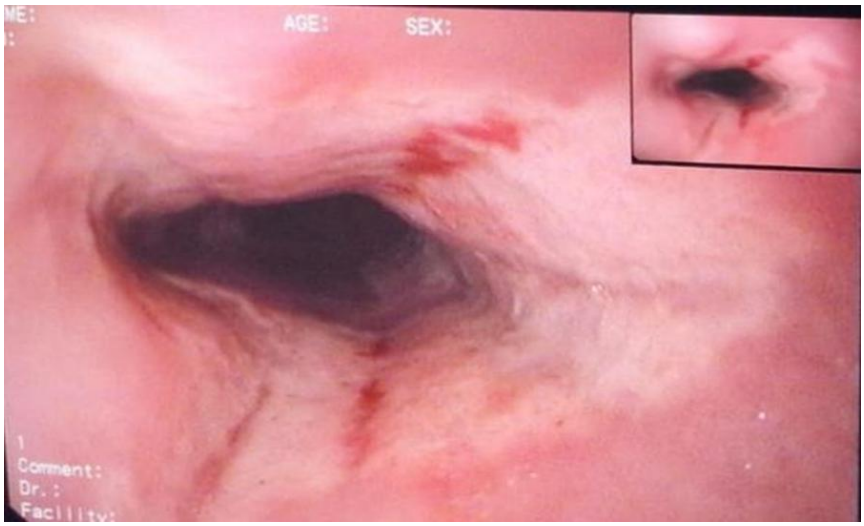

Figure 1- Showing Doxycycline Pill induced Oesophageal ulcer at Mid-oesophagus

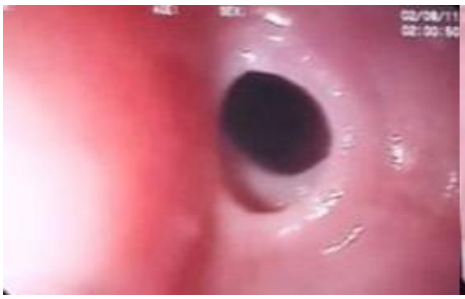

Figure 2- Showing Lower Oesophageal Web

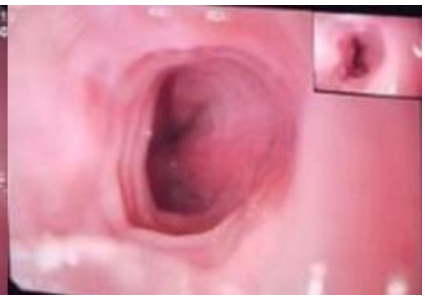

Figure 3- Showing Dilated Web

III. Discussion-

The chemical injury in the oesophagus can be caused by commonly prescribed drugs like aspirin, doxycycline, iron supplements, nonsteroidal anti-inflammatory drugs, alendronate or risedronate, vitamin c, clindamycin etc. Thus, proactive role lies on the shoulder of all health care workers in determining circumstances that predispose patients to drug-induced injuries and dysphagia which will help in decreasing the incidence of medication-induced oesophagitis **[16-18]**. The production of pills should be done with the intent of reducing the risk of complications during ingestion and transit. The pills should be taken with full glass of water in standing or seated upright position and one should not lie down immediately after ingestion of any medication. Sucralfate coats and protects the oesophageal mucosa and is mainstay of treatment **[11]** whereas proton pump inhibitors,

which suppress acid, can be administered in some cases. The Endoscopic findings in case of pill induced esophagitis are erosions, kissing ulcers, multiple small ulcerations with bleeding, mainly in mid oesophagus. Oesophageal webs and rings are indentations of the oesophageal wall that may partially occlude its lumen, thus remain usually asymptomatic but can occasionally present with intermittent dysphagia to solids. These webs are classically associated with Plummer-Vinson syndrome (PVS) which is triad of iron-deficiency anaemia, post cricoid dysphagia, and upper oesophageal webs **[19]**. Oesophageal webs and rings are each identified in 5% to 15% of patients undergoing upper endoscopy for dysphagia **[20]** and can be associated with eosinophilic esophagitis, hiatal hernia, and Zenker's diverticulum. A barium swallow can identify oesophageal webs, rings, strictures, tumours, and extraoesophageal compression but endoscopy is confirmatory which show oesophageal webs as thin membranes which do not cover the entire circumference of the oesophagus **[21]** whereas oesophageal rings also appear as thin membranes, but they cover the entire circumference of the oesophagus **[22]**. The upper gastro-intestinal endoscopy not only identifies different causes of dysphagia like stricture, polyps, tumours. but allows biopsy where ever indicated in lesions suspicious of malignancy. Dual dysphagia means that there are two aetiologies but there are limited case reports like achalasia cardia and eosinophilic oesophagitis **[23]** or even after surgical interventions for corrosive stricture of oesophagus **[24]**. In our case also we were able to think dual aetiology on basis of history alone, as intermittent dysphagia for one year, especially for solids in a young female without any alarming symptoms, pin pointed towards oesophageal web or ring and acute onset odynophagia, immediately after medicine intake pointed towards pill induced esophagitis. The dual aetiology was confirmed and treated endoscopically with successful outcome. We were wise because we already had dealing pill induced oesophagitis in past **[25]**.

IV. Conclusion-

It is proven fact that good clinical history is base for proper diagnosis which ultimately decides the right line of treatment. The health care specialist should always remain vigil for uncommon and rare phenomenon like dual dysphagia. It is not only important to promptly treat the problem with scientific rationale but also to prevent future recurrences by properly making aware the patient and other family members. The pills have to be used very judiciously as per need, should always be taken in upright or sitting position with full glass of water and immediate lying down position should be avoided. In case there is suspicion of pill induced injury is there, then early consultation, endoscopy and proper treatment is key for speedy recovery.

Conflict Of Interest- There were no conflicts of interest and no financial support was taken.

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