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PULSATING DYSPHAGIA IN ELDERLY

Gastroenterology

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ABSTRACT

A 61-year-old man presented with complaints of difficulty in swallowing of solids for the last 1 month. It was slowly progressive in nature.
He was able to swallow liquids and blenderized diet without difficulty.
Clinical examination was inconclusive. Ultrasound imaging revealed features of cholelithiasis. In view of his dyspeptic symptoms, Upper GI Endoscopy was done which revealed? Pulsating extraneous impression in Oesophagus (at 22cm). CT Chest done revealed aberrant right subclavian artery causing extrinsic impression on oesophagus, thus confirming the diagnosis of Dysphagia Lusoria. Patient was managed with pro kinetic and PPI medications, and is on follow up.

KEYWORDS

Aberrant Subclavian Artery, Extraneous Impression In Oesophagus, Dysphagia, Congenital Anomalies

Case Report:
A 61-year-old man presented with complaints of difficulty in swallowing of solids for the last 1 month. It was slowly progressive in nature.

He was able to swallow liquids and blenderized diet without difficulty. Patient complained of sensation of stickiness of food in the mid chest. There was no history of coughing, nasal regurgitation, pain during swallowing, heart burn and weight loss. His appetite was normal.
His clinical examination was inconclusive. Routine investigations were unremarkable.

In view of dysphagia, Upper GI Endoscopy was done which revealed, ? Pulsating extraneous linear impression in posterior wall of Esophagus (at 22cm). (Figure 1) The rest of the stomach, D1, D2 were normal.

He had a past history of Biliary Pancreatitis. He also had Type II Diabetes Mellitus, Systemic Hypertension, Coronary Artery Disease (s/p PTCA) and was on regular medication for the same. No history of alcohol abuse or smoking.

On examination, he was moderately built and nourished, his blood pressure 110/70 mmhg, pulse rate 82bpm, temperature 37^{c}. The absence of pallor, icterus, clubbing, pedal oedema and lymphad enopathy were noted.

Abdominal examination revealed mild tenderness in epigastric region, no organomegaly, or free fluid were noted. Other system examinations were unremarkable.

Blood Investigations were within normal limits (Table -1). Ultrasound Abdomen revealed cholelithiasis, left renal simple cyst, left renal calculus. Upper GI Endoscopy was done which revealed ? pulsating Extraneous impression – Oesophagus (at 22cms) (Figure 1). In view of pulsating extraneous impression on the endoscopy, a vascular anomaly was suspected and Patient was further evaluated with CT Chest, which revealed aberrant right subclavian artery causing extrinsic impression on oesophagus (Figure 2,3). Thus, confirming our diagnosis of dysphagia lusoria. Patient was started on pro-kinetic medications and PPI.

Table 1:

Investigations	Report	Normalrange
CBC		
HB	14.1g/dl	13.0–17.0
PCV	43.5%	40-50
TotalCount	10000 cells/cmm	4000-10000
Neutrophil	79.6 %	45-70
Plateletcount	2.12 lac/cmm	1.5–4.1
LFT		
TotalProtein	7.2 g/dl	6.4-8.3
Albumin	4.1 g/dl	3.5-5
Globulin	3.1 g/dl	2.3-3.5
TotalBilirubin	2.1 mg/dl	Upto1.0
DirectBilirubin	0.288mg/dl	Upto0.25
AST	22U/L	0-46
ALT	19U/L	0-49
AlkalinePhosphatase	91U/L	60-170
GGT	30U/L	0-55

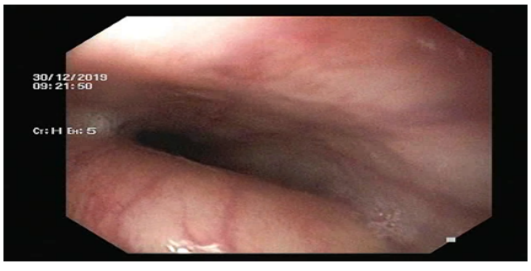

Figure 1: Upper GI Endoscopy showing the Extraneous compression of the Oesophagus at 22cm

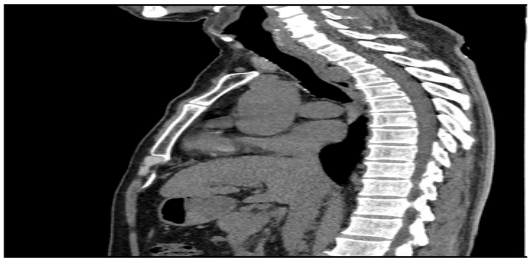

FIGURE 2: Sagittal View Of Ct Showing Extrinsic Compression Of Oesophagus.

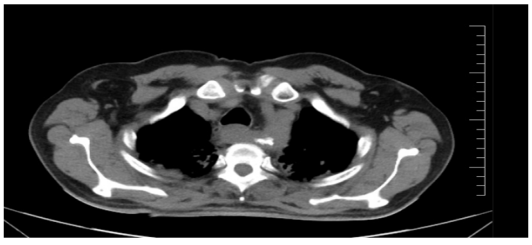

Figure 3: Axial View Of Ct Showing Extrinsic Compression Of Esohagus By Subclavian Artery.

DISCUSSION:

Dr David Bayford, a surgeon in London, initially coined the term "*Lusus nature*" meaning freak of nature, in 1761 for an unusual cause of oesophagus compression by the aberrant right subclavian artery[1]. It was later coined as "Dysphagia Lusoria"[1]. The prevalence of the anomaly is noted as 1.8%[2].

The Lusorian artery is a rare anomaly of the right subclavian artery. The artery arises from the arch of aorta distal to the left subclavian artery. It later crosses the midline behind the oesophagus [2]. It results in an extrinsic compression of the oesophagus, which can be easily missed during routine endoscopy. Sometimes patients can go asymptomatic with the first appearance of symptoms after the age of 40 years[2].

Adults usually present with dysphagia, whereas in infants the usual presenting symptom is respiratory symptoms. The exact reason is not known, but McNally and Rak et.al reasoned that since the trachea in adults is more rigid and resistant to compression in comparison with infants, dysphagia is the most common presenting complaint in adults, and respiratory symptoms in children[4].

Upper GI Endoscopy revealed a pulsatile extraneous compression[6]. Further imaging with CT chest revealed aberrant right subclavian artery causing extrinsic impression on oesophagus, thus confirming theagnosis[2,3,6]. Alper Fatih et al, revealed that out of 38 patients included in the study, Multi detector computed tomography (MDCT) was able to detect all 15 patients who had dysphagia due to a vascular compression of the oesophagus, in comparison 9 out of 15 patients had a positive Barium swallow report[7]. Thus, a normal Barium swallow does not exclude the diagnosis of dysphagia lusoria[7].

Our patient was advised dietary changes, prokinetic medications, PPI [8,9]. In patients with severe obstruction, surgical modality provides symptom relief[10,11]

LEARNING POINTS:

1. Clinical suspicion of Dysphagia Lusoria is needed in patients who present with mild dysphagia, especially in the elderly age.
2. Routine Endoscopy, when done carefully, will reveal an extraneous impression on the oesophagus and must not be missed.
3. CT imaging has been shown to be a good imaging modality in diagnosing the anomaly
4. A normal Barium swallow does not rule out dysphagia Lusoria.

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