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AN UNUSUAL PRESENTATION OF DYSPHAGIA SECONDARY TO AORTIC ANEURYSM IN MALE PATIENT

Medicine

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ABSTRACT

Dysphagia aortica is a rare cause of dysphagia. It is a mechanical dysphagia caused by compression of the esophagus by the dilated aorta. It occurs most commonly in elderly women with short stature, hypertension and kyphosis. Here we are presenting a case of dysphagia aortica in a 56 yrs old male patient , a rare occurance. Chest computed tomography showed compression of the esophagus by a dilated thoracic aortic aneurysm. Extrinsic compression of the esophagus by the thoracic aorta was also shown in the barium swallow test.

KEYWORDS

Dysphagia, Aortic Aneurysm, Dysphagia aortica, Vascular compression.

Introduction:
Dysphagia is defined as a feeling of blocking or attachment of the passage of food through the oral cavity, pharynx or esophagus. Dysphagia appears more frequently in elderly patients; 7-10 % of patients older than 50 years have dysphagia. (1) Dysphagia can be divided into two categories: motor dysphagia is caused by the discoordinated or weakened peristalsis and impaired relaxation of sphincter muscle; and mechanical dysphagia is due to a large bolus or a narrow lumen. Mechanical dysphagia is associated with intrinsic or extrinsic compression, resulting in progressive intolerance to solids. The term, dysphagia aortica, has been used to describe difficulty in swallowing caused by external compression from an ectatic, tortuous, or aneurysmal aorta as a result of age related degeneration (2). Dysphagia aortica is classically seen in elderly women with short stature who have hypertension and kyphosis.(3). We report herein a patient with dysphagia associated with an aortic aneurysm. We present the case of a 56 year old male who presented repeatedly with dysphagia and weight loss over a 8-9 month period. Eventually, thoraco abdominal aortic aneurysm causing extrinsic compression of the oesophagus was discovered. As Dysphagia aortic more common in female and uncommon in male so our case is one of the rare case.

Case presentation:
A 56-year-old male presented in out patient department with complain of nausea and vomiting followed by food. Because of his progressive dysphagia to solids for the last 8-9 months, he had ingested only semi solids and liquids. He had lost about 16 kg of weight. On admission to the hospital, he had a chronically ill appearance. The blood pressure was 158/90 mmHg, the pulse rate was 84 beats/min, the respiratory rate was 28 breath/min, the body temperature was 98.6° F, the height was 5ft 4 inch, and the body weight was 45 kg. Also look for marfanoid features, which were not present.

The physical examination showed a diastolic murmur at the right upper sternal border and a pan systolic ejection murmur at the left lower sternal border. Lung sound was slightly coarse without rales or wheezing. Pitting edema in both lower extremities was observed

The laboratory findings were as follows: the white blood cell (WBC) count was 9000/mm^3, the hemoglobin was 9.6 g/dL, the platelet count was 189,000/mm^3, lactate dehydrogenase (LDH) was 558 IU/L, and the creatinine phosphokinase (CPK) was 396 IU/L. The results of liver function tests (LFT), blood urea nitrogen, serum electrolytes, creatinine and glucose were within normal limits. Electrocardiogram (ECG) demonstrated a left axis deviation and left ventricular hypertrophy. VDRL test was negative.

Barium swallow study show smooth pressure is seen over posterior aspect of thoracic esophagus with luminal narrowing and proximal dilatation. Xray also suggestive of cardiomegaly and bilateral minimal pleural effusion.

Computed tomography (CT) of the chest demonstrated approximately 92-12.2-13.7 cm sizes partially thrombosed wide neck pseudo aneurysm with calcified wall is noted arising from right lateral wall of descending thoracic aorta extending from D5 to D10 levels. Lesion causes compression over thoracic esophagus with resultant dilatation of proximal esophagus, anterior scalloping over D7-D10 vertebrae and compression of right and left atrium and left ventricle. Another similar characteristic pseudo aneurysm is noted arising from posterior and bilateral lateral walls of supra renal abdominal aorta extending from D11 to L 2 levels.

We concluded that the symptoms and the results of the imaging studies were consistent with dysphagia secondary to pseudo aneurysm of aorta. We recommended surgical correction of the aortic aneurysm or percutaneous endoscopic gastrostomy and referred patient to cardio thoracic surgeon for further management.

Discussion:
The esophagus normally begin on the right side of the thoracic aorta and then descends. The esophagus cross the aorta anteriorly in the lower third of the posterior mediastinum. This area is called the aortoesophageal decussation site. Then, the esophagus lies on the left side of the aorta and penetrates the diaphragm through the diaphragmatic hiatus. (4)

Esophageal compression leading to dysphagia caused by a thoracic aortic aneurysm as a sole presentation is succinctly described in case reports and whose incidence is unknown to date. The presenting signs and symptoms can be very vague as the majority are asymptomatic. Atypical presentations of a thoracic aneurysm include hoarseness, dizziness and dysphagia.

Association of thoracic aortic aneurysm and dysphagia was originally described by Pape in 1932, as reported by Wilkinson et al. [2], and is only infrequently reported in the medical literature.Recent case reports suggest that patients who develop aorto oesophageal fistula have a prodromal syndrome which includes dysphagia [2]. To date, there are only few reports linking thoracic aortic aneurysm to dysphagia (5). There is no gold standard diagnostic procedure for dysphagia secondary to aortic aneurysm. The association of suggestive symptoms, such as progressive intolerance to solids with concomitant weight loss along with the results of imaging and other diagnostic studies provide a high index of suspicion.(6) The diagnostic work up includes radiologic, endoscopic, and manometric studies. On a standard chest radiography and CT scan, the enlargement of the aortic arch and the tortuous dilated aorta can be observed. A barium swallow test may show partial esophageal obstruction and pulsatile movement of the barium synchronous with aortic pulsation.(7) Endoscopy reveals pulsatile extrinsic compression and stenosis of the lower esophagus with proximal dilatation. Esophageal manometry may demonstrate a localized high pressure band with superimposed pounding that is synchronous with the cardiac pulsation. (8)

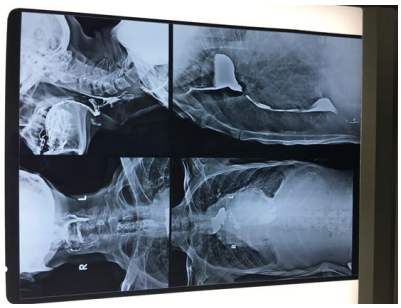
The differential diagnosis of dysphagia aortica includes various common structural and neuromuscular abnormalities. (9) Gastro esophageal reflux disease and motility disorders are common causes of dysphagia. The coexistence of these conditions and the lack of sensitivity and specificity of the usual diagnostic tests make it difficult

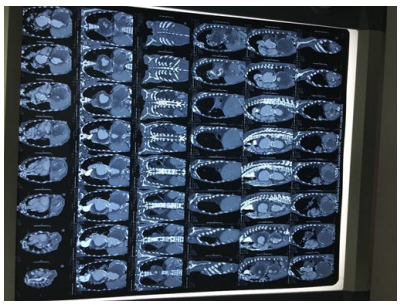
to diagnose dysphagia aortica with certainty. Wilkinson et al.2) demonstrated that a video solid bolus swallow test could be useful in determining the manometric findings that are suspicious for dysphagia aortica when the standard evaluation fails.

Unfortunately, our patient succumbed before she was seen at the tertiary centre. Dysphagia aortica is rarely considered in the differential diagnosis of dysphagia; the lack of awareness lead to a significant diagnostic delay in our case. We suggest that all patients presenting with atypical symptoms, especially dysphagia caused by a thoracic aneurysm, should be referred urgently to a tertiary centre for operative treatment, as this particular symptom is associated with imminent rupture and death.

The present case was diagnosed with dysphagia aortica. Although we did not perform esophageal manometry, the patient's symptoms and imaging studies were consistent with the classic findings of dysphagia aortica. Although the patient declined any invasive procedures, a PEG for a feeding tube might have been helpful for nutritional support.

Dysphagia aortica is an uncommon type of dysphagia that is caused by extrinsic mechanical compression. It should be differentiated from other causes of dysphagia, such as gastroesophageal reflux disease or motility disorders, because dysphagia aortica often requires surgical intervention that can significantly reduce the morbidity and these interventions can be curative in some situations.





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