

Esophago-esophageal Intussusception: A Rare Presentation of Carcinoma Esophagus

Sagar Sonone, Vivek Murumkar, Jagneet Chatha, Amol Gawhale

Resident, Department of radiology, Seth G S Medical College and KEM Hospital, Mumbai, Maharashtra, India

Abstract

Esophageal cancer is the third most common gastrointestinal malignancy and is among the ten most prevalent cancers worldwide. Common malignant neoplasms of esophagus include squamous cell carcinoma and adenocarcinoma. Squamous cell carcinoma is more common than adenocarcinoma, but the incidence of adenocarcinoma is on the rising trend nowadays and found to be predominant in newly diagnosed patients and in cases with Barrett's esophagus. Dysphagia and weight loss are the principal complaints in the patient with carcinoma esophagus. Intussusception causing acute obstruction of small bowel and colon is known. Few cases of gastroesophageal intussusception due to eating disorders, congenital obstructions like superior mesenteric artery syndrome, physical exertions like weight lifting, peptic ulcer disease, and pregnancy due to hyperemesis gravidarum are known. Our case, a 52-years-old gentleman presented to gastroenterology OPD with complaints of dysphagia to solids and emaciation. For these complaints, upper GIscopy was advised. Gastroenterologists were unable to pass endoscope so patient was referred for computed tomography of thorax and abdomen, which revealed circumferential irregular thickening retro cardiac segment esophagus and lumen within lumen appearance of esophagus with metastasis to lymph nodes and liver. In adults, intussusceptions of bowel usually have a lead point, for example, mesenteric lipoma or a neoplastic process; in our case, it was carcinoma of esophagus.

Key words: Esophago-esophageal intussusception, Esophageal cancer, Dysphagia

INTRODUCTION

Intussusception predominantly involves pediatric population but approximately 5% of them occur in adult, and it is frequently caused by demonstrable pathologies.^[1,2] Small and colon are common sites of intussusception leading to obstruction; however, esophageal intussusception is extremely rare.^[3] Esophageal carcinoma usually presents as asymmetric thickening of wall, <3 mm is considered as normal, and thickness more than 5 mm is considered as abnormal.^[4] Esophageal carcinoma causing esophago-esophageal intussusception is very rare. Progressive dysphagia and weight loss are usual presentation of patients with esophageal carcinoma. Tobacco, alcohol, environmental carcinogens, and nutritional deficiencies are usual risk factors for developing carcinoma esophagus in which tobacco and alcohol are main culprits.

Cross-sectional imaging like computed tomography (CT) and magnetic resonance imaging (MRI) are being used to stage carcinoma esophagus.

CT and MRI can detect extension of disease process outside lumen of esophagus into mediastinum including trachea, bronchi, aorta, and pericardium.^[4] It is important to differentiate resectable lesions from non-resectable ones to avoid unnecessary morbidity due to surgical intervention. Endoscopic biopsy usually was done to confirm the diagnosis.

CASE REPORT

A 52-years-old male patient presented with complaints of progressive dysphagia and emaciation to GI medicine OPD. For these complaints, upper GIscopy was advised. Gastroenterologists were unable to pass the endoscope into thoracic segment of esophagus so patient was referred for computed tomography of thorax and abdomen.

A dual-phase contrast-enhanced CT scan with arterial phase at 30 s and venous phase at 70 s was performed,

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Corresponding Author: Dr. Sagar Sonone, Resident, Department of radiology, Seth G S Medical College and KEM Hospital, Mumbai, Maharashtra, India.

and thorax and abdomen were included in the study. CT scan revealed dilated proximal esophagus with irregular circumferential thickening of retrocardiac segment of esophagus which showed enhancement on contrast study [Figure 1]. Thoracic part of esophagus shows a classic lumen within lumen appearance for the length of 3 cm with the leading point being neoplastic thickening of esophagus [Figures 2 and 3]. The neoplastic growth in the esophagus is abutting the aorta, but fat planes are not compromised [Figure 3]. Fat planes with left atrium are compromised [Figure 4].

Additional findings on CT scan were enlarged peripherally enhancing local (mediastinal group) lymph nodes and supra coeliac group of lymph nodes. Mild right-sided pleural effusion was noted with fissural extension into oblique fissure [Figure 5]. Postcontrast phase showed hematogenous spread of neoplastic process as multiple ill-defined hypoattenuating lesions involving both right and left lobe of the liver of varying sizes [Figure 6].^[5]

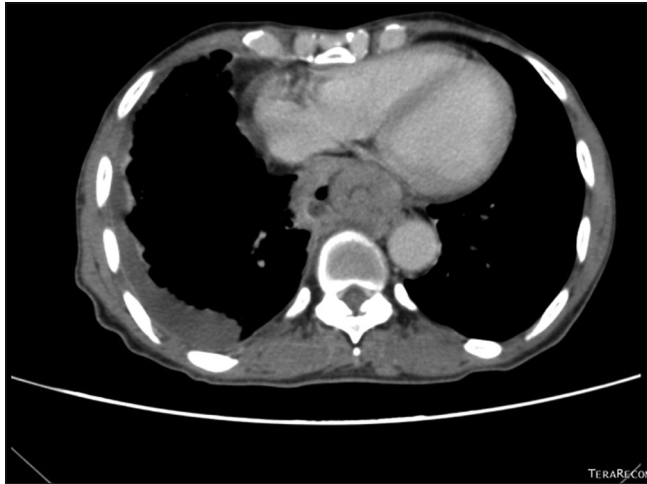


Figure 1: Axial section of contrast-enhanced computed tomography chest shows lumen within lumen appearance of thoracic esophagus suggestive of intussusception



Figure 3: sagittal reformatted section of contrast-enhanced computed tomography chest and abdomen shows lumen within lumen appearance of esophagus suggestive of esophago-esophageal intussusception



Figure 2: Coronal reformatted section of contrast-enhanced computed tomography chest and abdomen shows lumen within lumen appearance of esophagus with irregular circumferential thickening of esophagus



Figure 4: Axial section of contrast-enhanced computed tomography chest shows circumferential irregular thickening of thoracic esophagus which is suggestive of malignant neoplasm of esophagus



Figure 5: Axial section of contrast-enhanced computed tomography upper abdomen shows enlarged supraceliac peripherally enhancing lymph nodes suggestive of metastatic lymph node



Figure 6: Axial section of contrast-enhanced computed tomography of the upper abdomen shows multiple peripherally enhancing lesions of variable sizes in the right lobe of liver suggestive of metastasis to the liver and also right-sided pleural effusion noted

DISCUSSION

To the best of our knowledge, this is the first case as there are no case reports where carcinoma esophagus has been known to cause esophago-esophageal intussusception. The exact incidence of carcinoma esophagus causing intussusception is not known, but the

incidence of partial gastroesophageal intussusception on radiographic examination is around 1.4%.^[6] Dysphagia and weight loss are the principal complaints of carcinoma esophagus which were present in this case. Various causes of gastroesophageal intussusception have been described as peptic ulcer disease, pregnancy, and small bowel obstruction. Principal symptoms of gastroesophageal intussusception causing acute esophageal obstruction are acute retrosternal chest pain and excessive salivation.

In this case, correction of intussusception and resection of tumor was not possible as esophageal malignancy presented in the advanced stage in the form of lymphatic and hematogenous dissemination disease process. Palliative feeding gastrostomy was done for the patient.

CT scan is useful in the diagnosis of intussusceptions with a leading point. Nowadays, cases of intussusception without leading point are also being diagnosed with the help of CT scan.^[2] CT scan has a good sensitivity and specificity in cases of carcinoma esophagus, in diagnosing extension to mediastinal structures such as aorta, bronchus, and pericardium. T-staging in the carcinoma esophagus is better with endoscopic ultrasound, but it has some limitations such as stenotic lesions, intussusception, and high-grade strictures in which we cannot pass endoscope further and increase the risk of perforation. In such cases, CT scan is good modality.

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