Introduction
Dissection of the ascending aorta is a relatively common aortic catastrophe that usually begins with a tear in the aortic intima that exposes the underlying media layer directly to blood flow at arterial pressures. Medial degeneration is the chief predisposing factor in most nontraumatic cases of aortic dissection. Aortic dissection is rarely associated with malignancy, it can occur in primary tumors of aorta and may be due to metastasis. Only few cases were reported to be associated with esophageal carcinoma but were all reported to be abdominal descending aorta aneurism; no thoracic descending aorta aneurism was reported. Our case was a very rare case of descending aorta dissection with vertebral metastasis and primary esophageal carcinoma.

Case Report
A 45-year-old hypertensive male was admitted with complain of chest pain, dry cough along with dysphagia for 1 month. He was a diagnosed case of chronic obstructive pulmonary disease (COPD) on the basis of spirometry findings (postbronchodilator FEV1/FVC 65%, predicted FEV1 69% and absence of any significant postbronchodilator FEV1 reversibility) for past 3 years. On physical examination, patient had grade II clubbing with mediastinal percussion being dull and on chest auscultation bilateral vesicular breath sound with prolonged expiration and polyphonic rhonchi. Chest X-ray showed widening of mediastinum. Contrast-enhanced computed tomography (CT) scan of thorax showed presence of right upper paratracheal, right lower paratracheal, aortopulmonary, subcarinal lymphadenopathy. Lymph nodes were enlarged so massively so that it almost compressed surrounding structures. Esophagus was compressed and became almost like a slit-like opening with proximal dilatation as visible by water soluble contrast gastrograffin. On CT thorax there was an intra-esophageal growth projecting inside the lumen [Figure 1].

Another striking feature was presence of a large dissecting aneurysm in descending thoracic aorta extending distally up to the origin of left renal artery. Both true and false lumen was clearly visible with a clot inside the false lumen. There was also presence of erosion of vertebral body due to pressure by dissecting aneurysm [Figure 2]. Fine needle aspiration cytology (FNAC) from vertebral erosion showed metastatic deposits in vertebra. Upper gastrointestinal endoscopy done for dysphagia showed an intra-esophageal fungating growth; from which biopsy was taken. Esophageal biopsy revealed squamous cell carcinoma of esophagus [Figure 3]. It was a rare case of squamous cell carcinoma of esophagus associated with dissecting

Abstract
The association of aortic dissection with a malignancy is a rare finding and previous reports are usually those of primary aortic sarcomas. A 45-year-old male presented to us with chest pain and dysphagia for 1 month with a background history of obstructive airway disease and uncontrolled hypertension. In this report we present a case of typical descending aorta dissection with associated esophageal carcinoma.

Key words: Descending, dissection, esophageal carcinoma, thoracic aorta

Figure 1: CT scan thorax showing dilation of esophagus with accumulation of contrast (yellow arrow) and intraluminal growth inside (red arrow)
aneurysm of aorta and vertebral metastasis visible on same CT scan thorax. Patient was managed conservatively for dissecting aortic aneurism with antihypertensive and statin. Patient was in advanced stage of cancer with metastasis to vertebra; hence, chemotherapy (5-fluorouracil and paclitaxel) and radiotherapy for dysphagia was given.

**Discussion**

Aortic aneurism is dilation of aorta greater than 1.5 times normal and occurs due to weakening of arterial wall, thoracic, or abdominal. An aortic dissection is formed by an intimal tear and is contained by the media; hence, it has a true lumen and a false lumen. Dissection can lead to aneurysmal change and early or late rupture. Dissection can occur with or without aneurysmal enlargement of the aorta. Prevalence of aortic aneurysms exceeds 3-4% in individuals aged above 65 years. Patients with thoracic aneurysms are often asymptomatic. Most patients are hypertensive but remain relatively asymptomatic until the aneurysm expands. Their most common presenting symptom is pain. Pain may be acute, implying impending rupture or dissection, or chronic, from compression or distension. Descending thoracic aneurysms more likely cause back pain localized between the scapulae. The most common complications of thoracic aortic aneurysms are acute rupture or dissection. Common causes of aortic aneurisms are atherosclerosis, marfan syndrome, mycotic or syphilitic infection, arteritis (i.e., giant cell, Takayasu, Kawasaki, Behçet), and trauma.\(^\text{[2]}\)

In our patient aneurism and dissection of descending thoracic aorta was associated with concomitant esophageal carcinoma. The association of aortic dissection with a malignancy is rare. Previous cases involve primary aortic tumors that are intraluminal, mural, or adventitial.\(^\text{[1-5]}\) The histologic types of these tumors are diverse and include fibrosarcomas, leiomyosarcomas, undifferentiated sarcomas, histiocytomas, and myxomas. No definite causation of relationship between esophageal cancer and aneurism can be established. Simultaneous presence of aneurism and malignancy usually detected during incidental investigations as in our patient. The patient was already at risk for aortic dissection because of hypertension and COPD. Coexistent malignancy and dissecting aneurysm of aorta poses a serious challenge to treatment of the patient.

There is no consensus on the management approach for patients with simultaneous aortic aneurysm and malignancy. Several strategies have been considered, namely, to repair the aneurysm first and treat the malignancy later, to resect the malignancy first and repair the aneurysm later, to undertake both procedures simultaneously, and in some cases to treat the malignancy and manage the aneurysm conservatively. Aortic aneurysm repair is a prophylactic procedure and is worthwhile where the lifetime risk of rupture exceeds the risk from treatment. The prognosis of cancer is therefore central to the decision making process. The perceived increase risk of aortic aneurysm rupture following cancer surgery, the significant delay in the treatment of cancer if aneurysm is treated first, and the risk of graft infection are the other important considerations in the management of concomitant aortic aneurysm and cancer. Our patient was Stanford type B dissection so medical management was preferred over surgical.\(^\text{[6]}\)

**References**

1. Larson EW, Edwards WD. Risk factors for aortic dissection: A necropsy study of 161 patients. Am J Cardiol 1984;53:849-55.
2. Spittell PC, Spittell JA Jr, Joyce JW, Tajik AJ, Edwards WD, Schaff HV, et al. Clinical features and differential diagnosis of aortic dissection: Experience with 236 cases (1980 through 1990). Mayo Clin Proc 1993;68:642-51.
3. Borislow DS, Floyd WL, Sane DC. Primary aortic sarcoma mimicking aortic dissection. Am J Cardiol 1989;64:549-51.
4. Fujise K, Sacchi Tj, Williams RJ, DiCostanzo DP, Tranbaugh RF. Multicentric granular cell tumor of the heart presenting with aortic dissection. Ann Thorac Surg 1994;57:1653-5.
5. Chen WJ, Chen CL, Liau CS, Chu SH, Lee YT. Primary malignant fibrous histiocytoma of the aorta associated with aortic dissection. Chest 1991;99:1049-50.
6. Hiratzka LF, Bakris GL, Beckman JA, Bersin RM, Carr VF, Casey DE Jr, et al. 2010 ACCF/AHA/AATS/ACR/ASA/SCA/SCAI/SIR/STS/SVM guidelines for the diagnosis and management of patients with Thoracic Aortic Disease: A report of the American College of Cardiology Foundation/American Heart Association Task Force on Practice Guidelines, American Association for Thoracic Surgery, American College of Radiology, American Stroke Association, Society of Cardiovascular Anesthesiologists, Society for Cardiovascular Angiography and Interventions, Society of Interventional Radiology, Society of Thoracic Surgeons, and Society for Vascular Medicine. Circulation 2010;121:e226-369.

How to cite this article: Saha K, Saha D, Bandyopadhyay A, Jash D. Descending thoracic aorta dissection associated with esophageal carcinoma. South Asian J Cancer 2013;2:54.

Source of Support: Nil. Conflict of Interest: None declared.