

An unusual cause of chronic cough

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A 68-year-old male presented with a history of on and off cough for several years which was increased over last month and was associated with low-grade intermittent fever since last four weeks. Cough was more worrisome during night and in lying down position with an occasional flare-up not associated with hemoptysis or dyspnea. He could not recall the exact duration of his cough and never paid serious attention to it prior to this episode. During flare-ups he used to consult his local physician and was treated with multiple courses of oral antibiotics along with cough suppressants, antihistamines and inhaled corticosteroids, which led to brief clinical improvement but failed to control cough completely. During the current flare-up he had also been treated with antibiotics and cough suppressants, but he continued to have symptoms, which forced him to think of further consultation. On further enquiry he revealed that he also had less troublesome symptoms like nausea, vomiting, epigastric pain, dysphagia and regurgitation which got intermittently relieved with some antacids.

An examination of the respiratory system revealed tubular bronchial breath sound over left infraclavicular and left mammary areas. Laboratory parameters showed a raised total leukocyte count, rest of the blood parameters being normal. Chest radiograph demonstrated a widening of the mediastinum with a patch of consolidation in the left upper and mid zone (Figure 1A). CT of the thorax revealed a dilated loop of the esophagus with air fluid level from stagnant food particles (white arrow mark), left upper lobe consolidation with minimal left pleural effusion (Figure 1B). A barium study was performed which showed the dilated and tortuous esophagus with tapering (black arrow mark) at gastroesophageal junction (Figure 1C), which clinched the diagnosis of achalasia. His respiratory symptoms subsided with intravenous antibiotics and there was significant radiological improvement. Then we referred him to cardiothoracic department for further management.

Achalasia is a primary motility disorder of the esophagus in which insufficient relaxation of the lower esophageal sphincter and loss of peristalsis result in stasis of ingested food leading to dysphagia, regurgitation and chest pain [1].

Dysphagia is the most cardinal symptom present in up to 90% of the cases [2]. Other common symptoms include chest pain, heartburn, regurgitation, and weight loss due to reduced food intake. Some patients may present with more subtle symptoms owing to accommodation which includes slow eating, stereotactic movements with eating, and avoidance of social functions involving meals. With these accommodating techniques, the onset of symptoms is often delayed and many patients experience symptoms for years before coming to medical attention [3]. Some persons develop hoarseness of voice due to direct pressure of the distended esophagus on the laryngeal nerve [4].

Regurgitation and aspiration of retained esophageal content cause pulmonary complications like chronic cough, choking, recurrent pulmonary infections, pneumonia and atelectasis [5].

The present case emphasizes that achalasia could manifest as chronic cough owing to tracheal compression from the dilated esophagus and/or aspiration from regurgitated food. Primary presentation with fever and chronic nocturnal cough along with understating upon symptoms like vomiting and regurgitation of food posed a diagnostic dilemma. Failure to detect achalasia as a cause of chronic cough resulted in delay in diagnosis and needless morbidity. Fascinatingly, diagnosis was made on the grounds of CT scan finding of the dilated esophagus and later confirmed by the barium study. A clinical suspicion of achalasia should always be kept in mind while evaluating a patient with chronic cough.

Conflict of interest

None declared.

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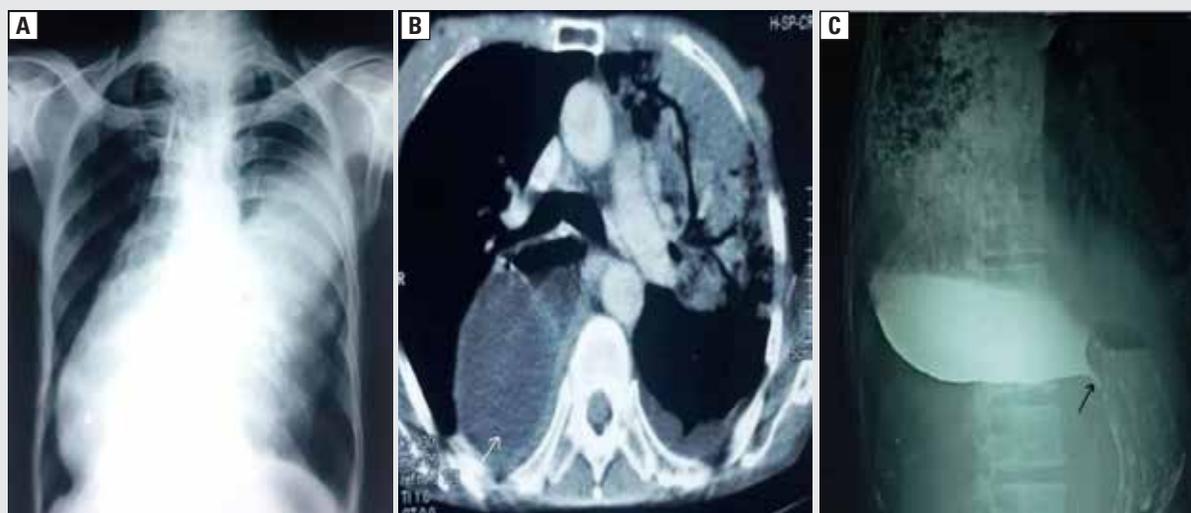


Figure 1. A. Chest radiograph showing left upper and mid zone homogenous opacity with a gross widening of the mediastinum; B. Mediastinal window of CT of the thorax showing the grossly dilated esophagus with air fluid level, left upper lobe consolidation with minimal left pleural effusion; C. Barium study showing the dilatated esophagus with tapering at gastroesophageal junction

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