

Persistent cough: An unexpected diagnosis

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ABSTRACT

Esophageal cancer is the eighth most common cancer and the sixth most common cause of cancer death globally. Esophageal squamous cell carcinoma (ESCC) accounts for 70%–90% of esophageal cancers worldwide, 5% are adenocarcinoma, and 5% represent rare malignancies and metastases from other organs. We present a case where a 54-year-old lady, with multiple readmissions for persistent dry cough and respiratory symptoms, turns out to be an esophageal malignancy. CECT thorax revealed an enhancing wall thickening of the esophagus with paraoesophageal fat stranding, mediastinal lymphadenopathy, and subsegmental right lobe atelectasis, suggestive of a probable esophageal malignancy. An upper gastrointestinal endoscopy showed a circumferential esophageal growth which on biopsy and histopathological examination turned out to be a moderately differentiated squamous cell carcinoma of esophagus.

Keywords: Chronic cough, squamous cell carcinoma of esophagus

Introduction

Cancer has been the leading cause of death worldwide. The International Agency for Research on Cancer (IARC) issued the worldwide cancer burden for 2018 based on GLOBOCAN.^[1] It was estimated that there would be 18.1 million new cases and 9.6 million cancer deaths worldwide.^[1] Esophageal cancer (EC) is a common malignancy worldwide. According to the International Agency for Research on Cancer, EC is one of the eight most common malignancies and sixth most deadliest tumors in the world.^[2] Studies have shown that lower socioeconomic status (SES) is associated with increased incidence or mortality due to EC.^[3] EC is a disease of older age with a peak incidence in sixth to seventh decade.

Histologically, there are two predominant types of primary ECs: squamous cell carcinoma (SCC) and adenocarcinoma.^[4]

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Esophageal squamous cell carcinoma (ESCC) accounts for 70%–90% of ECs worldwide, 5% are adenocarcinomas, and the remaining 5% represent rare malignancies and metastases from other organs.^[5] Over the past few decades, the rates of ESCC have declined and that of esophageal adenocarcinoma (EAC) has increased in the Western world. The decrease in ESCC is probably due to the decrease in alcohol and tobacco abuse, while the increase in EAC is linked to the increase in obesity and GERD.^[6] They commonly present with gastrointestinal (GI) symptoms, that is, dysphagia, odynophagia, and weight loss. Because there is effective medication available over-the-counter to relieve gastroesophageal reflux symptoms, most individuals will not seek medical advice.^[6] EC has a very poor 5-year survival rate of 5.0%–26.2%.^[7] EAC arises from the distal third of the esophagus, while ESCC arises from the proximal two-thirds of the esophagus.^[6,7]

Case Report

A 54-year-old female patient presented with dry cough and generalized weakness for 20 days, throat discomfort, and breathlessness for 2–3 days, after being referred from a local hospital.

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In the preceding 6 months, she was admitted thrice with complaints of persistent dry cough and discharged each time with a diagnosis of acute exacerbation of bronchial asthma. There was no history suggestive of GERD, esophagitis, or aspiration pneumonia. She gave no history of fever, chills, or night sweats. She is a homemaker with no h/o smoking or tobacco addiction. She also never complained of chest pain, heart burn, dysphagia, odynophagia, nausea, vomiting, or weight loss.

On general examination, her vitals were stable. Systemic examination also did not reveal any abnormality except for scattered bilateral expiratory rhonchi.

ENT examination revealed only the posterior pharyngeal wall congestion. Her hemoglobin was 8.9 g%, total leukocyte count (TLC) 14,200/mm³, N73 L13 E05 B01, platelet count 223,000/mm³, RBS 94 mg%, S. creatinine 0.87 mg%, S. bilirubin 0.83 mg%, ALT 10.8, AST 15.3, alkaline phosphatase 86.9 unit/L, S. protein 6.4 g%, and S. albumin 3.4 g%. Urine routine examination was normal.

Chest X-ray showed clear lung fields [Figure 1], and ECG showed sinus rhythm with no ST-T changes.

Throat swab culture sensitivity reported non-pathogenic, normal upper respiratory tract flora. Sputum for AFB was negative. She was treated with antibiotics, antihistaminics, bronchodilators, and steam inhalation, and discharged after 5 days with advice for follow-up.

She got readmitted the very same evening with paroxysmal cough and shortness of breath. She was conscious, oriented, and afebrile. Her pulse was 132/min and the blood pressure was 160/100 mmHg. She was dyspnoeic and having a respiratory rate of 28/min with SpO₂ of 94% on room air. On systemic examination, she had tachycardia with bilateral crepitations and diffuse rhonchi.

Blood reports showed hemoglobin 10.2 g/dL, TLC 15,900/mm³, and N87% L10% M3%. The chest X-ray repeated next morning revealed right paratracheal soft tissue opacity with clear lung fields [Figure 2].

A CECT thorax [Figure 3] was planned because of her persistent cough, absence of any significant findings on general systemic or ENT examination, and the new finding of a right paratracheal opacity. CECT thorax revealed an enhancing wall thickening of the esophagus with paraesophageal fat stranding, mediastinal lymphadenopathy, and subsegmental right lobe atelectasis suggestive of a probable esophageal malignancy.

Upper GI endoscopy [Figure 4] showed a normal oropharynx, an irregular, friable, circumferential growth in the esophagus from 16 to 26 cm, and the GE junction at 35 cm distance from incisor teeth. Stomach and duodenum were normal. Histopathological examination revealed a moderately differentiated SCC of the

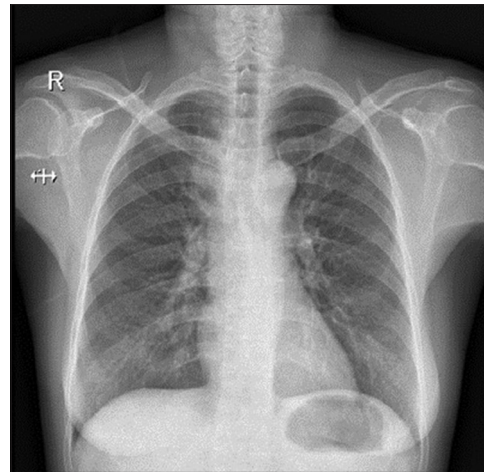


Figure 1: Initial chest X-ray: normal



Figure 2: Readmission chest X-ray: Rt. paratracheal soft tissue opacity

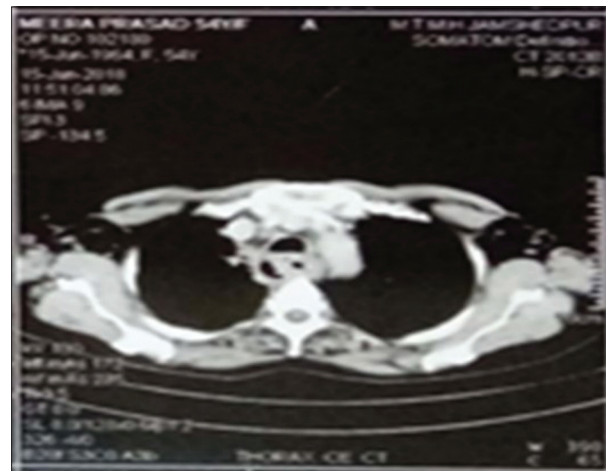


Figure 3: CECT thorax: enhancing wall thickening of esophagus

esophagus [Figure 5]. CECT abdomen and bronchoscopy was normal.

In view of inoperability, she was referred to medical oncology with T3N1M0, Grade 2 SCC at lower one-third

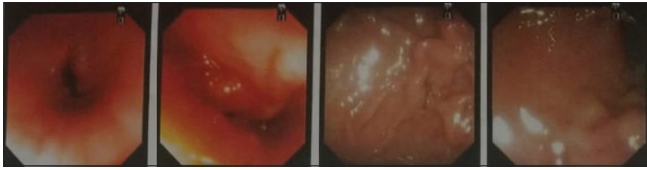


Figure 4: UGIE showing irregular, friable, circumferential growth in the esophagus

of esophagus and received concomitant radiation and chemotherapy.

She completed her radiotherapy and chemotherapy and is on regular follow-up in oncology.

Discussion

This case is unique as she presented with a chronic cough. First, the patient had respiratory symptoms rather than the most common gastroenterological symptoms. EC can present with respiratory symptoms of cough and lung infection due to the presence of an acquired tracheoesophageal fistula (TEF), which our patient did not have. EC can present with acute respiratory symptoms rather than chronic, without a history of respiratory disease or acquired TEF.^[5]

Yacouba *et al.* showed that of 22 reported cases of ECs with unusual presentations, 6 cases presented with osteolytic lesions, 3 cases presented with cutaneous nodules, 2 cases with dyspnea, 2 cases with upper abdominal pain, and 1 case each with gluteal mass,^[8] adrenal mass, thyroid mass,^[9] headache with SOL, solitary jejunal mass, painful breast lump, hip pain, cervical pain, and chronic cough.^[5] Of these 22 cases, 19 were metastatic ECs and only 3 cases were nonmetastatic cancer like our case.^[5] Of the total 22 cases reported, only 5 cases had typical symptoms and the remaining 17 cases had atypical presenting symptoms.^[5]

Endoscopy with biopsy is the diagnostic test of choice for EC. Staging of EC should first be done with computed tomography (CT) and positron emission tomography (PET)/CT.^[10] If the patient is a surgical candidate, endoscopic ultrasonography (EUS) should be used to determine the regional extent of disease.^[10]

Declaration Consent of patient was taken and Ethics committee approval has been obtained. (23/12/2019)

Conclusion

This case of a 54-year-old female patient with EC presenting with none of the classical symptoms but with atypical and unusual presentation of chronic cough and breathlessness was an enriching learning experience. In primary care settings, for all patients presenting with chronic cough, keeping EC as differential diagnosis, clinician should advise CECT thorax and upper GI endoscopy. The prognosis of EC is poor because of its concealed

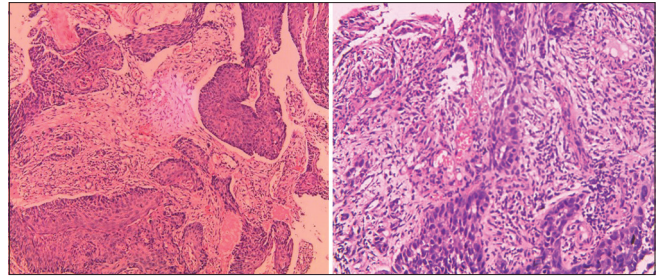


Figure 5: Moderately differentiated squamous cell carcinoma of the esophagus

and invasive nature. Identifying it early can effectively reduce the mortality associated with EC.

Declaration of patient consent

The authors certify that they have obtained all appropriate patient consent forms. In the form the patient(s) has/have given his/her/their consent for his/her/their images and other clinical information to be reported in the journal. The patients understand that their names and initials will not be published and due efforts will be made to conceal their identity, but anonymity cannot be guaranteed.

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Nil.

Conflicts of interest

There are no conflicts of interest.

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