

## Etiology of Recurrent Pneumonia in a Patient with History of Malignancy

Malignite Öyküsü Olan Bir Hastada Tekrarlayan Pnömoni Etiyolojisi

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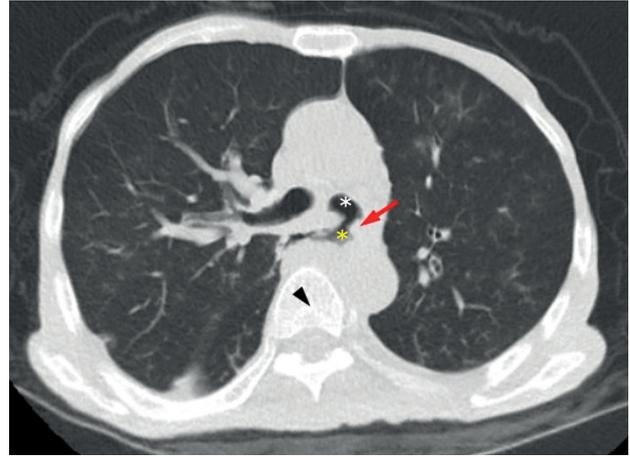
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### Dear Editor:

Community-acquired pneumonia is a significant burden in the healthcare system and ranks first among infectious causes among the causes of hospitalization. Hospitalization is often due to comorbidities and complicated clinical conditions (1). We would like to share a case we encountered a year ago on this subject.

A 59-year-old male patient presented to the emergency department with the complaint of shortness of breath. The patient had a history of chemotherapy due to a malignant neoplasm of the pharynx with extensive metastasis 2 months ago. It was learned from the anamnesis that the patient was hospitalized for 15 days with a similar complaint and was discharged 3 days ago. At admission, arterial blood pressure was 118/82 mm/Hg, heart rate was 109/min, SpO<sub>2</sub> was 92% (with 4lt oxygen support by nasal canula) and the patient was cachectic. In respiratory system examination, respiratory rate was 19/min, bilateral rhonchi were present and intercostal recession was present. From laboratory tests, C-reactive protein was 117 mg/L, white blood cell count was 20.9 10<sup>3</sup>/uL, and neutrophil count was 19.3 10<sup>3</sup>/uL. Thoracic computed tomography showed consolidation in the posterior upper lobe of the right lung, diffuse pneumonic consolidation in the lower lobes of both lungs, and the tracheoesophageal fistula (TEF) shown in the figure. The patient was admitted to the intensive care unit and died after two days of medical follow-up in the intensive care unit. Written informed consent was obtained from the patient's son and wife for the publication of this case.

In our case etiology of recurrent pneumonia was TEF. In ambulatory patients, the symptom is usually coughing attacks with liquid food intake. But this is quite rare. These patients mostly present with septic shock and generalized pneumonia, who usually have a history of a thoracic (lung, esophageal or mediastinal tumor) malignancy, injury, or surgery. On the other hand, acquired TEF develops due to prolonged intubation and cuffed tube compression in hospitalized patients (2). Radiotherapy for the treatment



**Figure 1:** Computed tomography image of the patient. Red arrow shows tracheoesophageal fistula. Black arrow is on the fourth thoracic vertebra. White asterisk is on right trachea. Yellow asterisk is on esophagus.

of esophagus, lung cancer, lymphoma or these diseases, penetrating neck and chest traumas, esophageal resection, laryngectomy, intubation for esophageal dilatation and inhalation injuries, esophageal stent placement, granulomatous mediastinal infections, AIDS, foreign body, cervical operations, and instrumentation and Zenker's diverticulum emerge as factors involved in the development of TEF pathology (3). Computed tomography or three-dimensional spiral neck tomography may be useful in the diagnosis of fistula, but its absence does not mean that the fistula is not found as a rule. Visualization of the nasogastric tube on examination of a nasally inserted fiberoptic bronchoscope by retracting the tracheostomy cannula may confirm the diagnosis. Esophagoscopy is not equally useful for diagnosis (4). As treatment, stent application is used to provide comfort to advanced cancer patients. Generally, esophageal stents are used. However, in patients whose esophageal stent is not suitable, the use of tracheal or bronchial stent may be considered. Surgical

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treatments are as follows: i. Direct closure of trachea and esophageal defects ii. Resection and anastomosis of the trachea and primary repair of the esophagus (5). In our case, the cause of TEF may be local or distant metastasis of the pharyngeal malignant neoplasm. The patient's

recurrent pneumonia attacks, long duration of previous pneumonia treatment, and medical history are the reasons for clinical suspicion of TEF. Diagnosis was made by TEF entering the cross-sectional area in computed tomography.

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