CASE REPORT

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A 54-Year-Old Woman with Chronic Cough and an Endobronchial Mass

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ABSTRACT

We report a case of a 54-year old female who presented with chronic cough. Computerized tomography (CT) scan of the chest was not remarkable. She underwent empirical treatment for common causes of chronic cough for months to no avail, after which flexible bronchoscopy revealed right lower lobe endobronchial mucoepidermoid carcinoma. Surgical resection resulted in complete resolution of the cough.

In patients with refractory cough who do not respond to conventional medical therapy, examination of endobronchial tree by bronchoscopy is strongly recommended. ***(Tanaffos2011; 10(2): 72-74)***

Key words: *Mucoepidermoid carcinoma, Chronic cough, Bronchoscopy*

CASE SUMMARIES

A 54-year-old female presented with chronic cough of three months duration. There was no associated weight loss, hemoptysis, or shortness of breath.

Her past medical history was remarkable for hypertension and diabetes for which she was taking medicine, but not any angiotensin converting enzyme (ACE) inhibitor.

Physical examination was essentially unremarkable for any adventitious sounds of the lungs. Chest radiograph appeared normal. CT of the chest showed minimal basilar atelectasis with no evidence of a mass or lymphadenopathy (Fig. 1).

Patient received empiric treatment with proton pump inhibitors, beta-2 agonist bronchodilator (albuterol), nasal steroid, and cough suppressant. Her cough; however, did not subside. She underwent fiberoptic bronchoscopic examination which revealed presence of an endobronchial lesion with near-total occlusion of the posterior basal segment of the right lower lobe (Fig. 2). Biopsy revealed low grade mucoepidermoid carcinoma (Fig. 3). She underwent thoracotomy and resection of the mass which was 1.5 cm in diameter with no sign of lymphatic or arterial invasion. Postoperatively, her cough resolved and all of her medicines were stopped.

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Figure 1. CT scan of the chest showing minimal basilar atelectasis with no evidence of a mass or lymphadenopathy

Figure 2. Fiberoptic bronchoscopic examination which revealed presence of an endobronchial lesion with near-total occlusion in the posterior basal segment of the right lower lobe

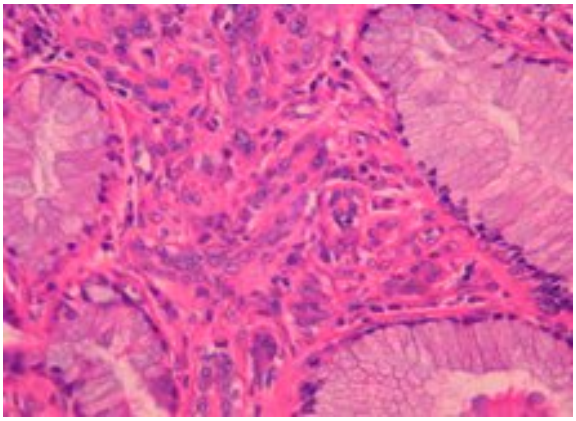

Figure 3. Biopsy of the endobronchial lesion revealing low grade mucoepidermoid carcinoma

DISCUSSION

This patient with chronic cough and a normal chest x-ray had presence of an endobronchial malignancy which had gone undetected on CT scan of the chest. It highlights two important findings: a) in a patient with no risk factors for malignancy and a normal chest radiograph, a CT scan should be strongly considered for workup of chronic cough ; b) if the cough persists and the CT scan is not informative, then bronchoscopy should be performed.

Mucoepidermoid carcinoma is a rare tumor which accounts for 0.2 percent of all lung tumors (1). It consists of two subtypes: a) low grade which usually occurs in childhood and is usually non-malignant, and b) high grade which predominantly occurs in adults and carries an unfavorable prognosis. Only one half of the patients are smokers. Presentation may include hemoptysis, post-obstructive pneumonitis, wheezing, or cough. Airway hyper-responsiveness, airflow limitation, and recurrent pneumonias may be other manifestations (2,3). Some patients are asymptomatic and their disease may only be seen as a nodule on chest X-ray (1,4). The prognosis in low-grade types, as the case of our patient, is in general excellent and distant metastasis is a very rare phenomenon after resection.

The most common causes of chronic cough (duration greater than 8 weeks) are gastroesophageal reflux, asthma, postnasal drip, and ACE inhibitors. Bronchoscopy has an undefined role in evaluation of chronic cough. Most studies do not recommend bronchoscopy (5), while some find bronchoscopy very valuable in workup of unexplained chronic cough (6). In the latter study, medical treatment failed in resolving chronic cough and radiographic imaging was not revealing. But bronchoscopy revealed the cause in 11% of patients which included tracheobronchopathia osteochondroplastica (TPO), elongated uvula, and endobronchial amyloidosis. All

of these etiologies would have been unnoticed without bronchoscopy.

Our patient was empirically treated for common causes of chronic cough. Her chest radiograph and CT-scan were overall unrevealing. Therefore, we opted to perform bronchoscopy.

Our treatment approach to chronic cough involves medical treatment encompassing the most common causes of cough. If unsuccessful, a CT-scan of the chest is recommended. If diagnosis remains elusive, bronchoscopy must be seriously considered.

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