Annals of Clinical Case Reports

Case Summary
Published: 31 Jan, 2019

Chronic Cough due to Fish Bone Incarcerated in the Bronchi Diagnosed by Bronchoscope - A Case Report

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Abstract

Introduction: The causes of chronic cough are complicated, bronchoscope plays an important role in diagnosing specific types of chronic cough.

Case Presentation: A 41-year-old man who diagnosed as bronchitis presented to our institution with chronic cough for six months. Six month ago, he had a transient cough and bloody sputum after eating fish porridge.

The physical examination revealed that the patient's neck and left lung could smell sonorous. Bronchoscopy revealed a fish bone surrounded by granulation tissue in the left upper of the left lung, diagnosis of bronchial foreign body was established. His symptoms had disappeared 1-month follow-up.

Conclusion: This case study indicates that bronchoscope and medical history can be helpful in detecting specific types of chronic cough.

Keywords: Chronic cough; Bronchial foreign body; Fish bone; Bronchoscopy; Case report

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Received Date: *28 Dec 2018*
Accepted Date: *28 Jan 2019*
Published Date: *31 Jan 2019*

Citation:
Cai H, Zhan Z, Luo Y, Guo Y, Zhao Z, Chen Y, et al. Chronic Cough due to Fish Bone Incarcerated in the Bronchi Diagnosed by Bronchoscope - A Case Report. Ann Clin Case Rep. 2019; 4: 1585.

ISSN: 2474-1655

Abbreviations

ECG: Electrocardiogram

Introduction

The causes of chronic cough are complicated. The most common causes include upper airway cough syndrome, cough allergic asthma, eosinophilic bronchitis, allergic cough, and gastroesophageal reflux cough, which accounts for 70% to 95% of the cause of chronic cough in Department of Respiratory [1,2]. Cough induced by bronchial foreign body is uncommon. We report an unusual case of chronic cough due to fish bone incarceration in the left lung, suggesting the importance of medical history and bronchoscopy in the diagnosis of chronic cough.

Case Presentation

A 45-years-old male presented to Department of Respiratory with chief complaint of cough for six month. He initially presented to a clinic, where he was diagnosed as bronchitis, for which treatment was begun. Ten days before presenting to our hospital, the patient began to have cough with shortness of breath, and the wheezing could be heard. There was a medical history of a transient cough with blood stasis after eating fish porridge six month ago. Physical examination revealed that nasal sound could be heard in the neck and left lung, and patients were advised to undergo fiberoptic bronchoscopy. However, the patient did not accept the advision. The symptoms of cough relived reduced at first return visit after seven days, but no improvement in shortness of breath. Nasal sound could still be founded in the neck and left lung, but the patient agreed to undergo fiberoptic bronchoscopy. During the process of bronchoscopy examination, a foreign body which wrapped around by granulation tissue was found in the upper left lobe of the patient. Under the ECG monitoring, the foreign body was taken out smoothly, which was a fish bone with a length of about 1 cm × 0.3 cm (Figure 1). The symptoms of cough and shortness of breath disappeared after treatments for two weeks.

Figure 1: Fiberoptic bronchoscopy found fish bone in the left lung.

Discussion

Cough is the most common symptom of patients presenting to respiratory specialist clinics and community outpatient departments. Patients with chronic cough account for more than one-third in respiratory specialist clinics in China [3]. However, the cause is complicated especially for those whose radiograph was not abnormal obviously. Because the diagnosis is not clear, a number of patients often take ineffective various tests, or long-term antibiotics and antitussives, with side-effect profile unacceptable. Cough is a defensive nerve reflex, which is good for clearing respiratory secretions and harmful factors, however, frequent and severe cough will affect the work, life, social activities and cause high economic burden [4]. Chronic cough could result in many complications in cardiovascular, digestive, neurological, urinary, musculoskeletal and other systems, such as urinary incontinence, syncope, insomnia, and anxiety [5]. Chronic cough is associated with air pollution closely [6,7]. The most common causes include upper airway cough syndrome, cough allergic asthma, eosinophilic bronchitis, allergic cough, and gastroesophageal reflux cough commonly [8,9], which accounts for 70% to 95%. Imaging examination, induced sputum cytology, pulmonary function test, airway hyperresponsiveness test, FeNO test, 24-hour esophageal pH-multiple-channel impedance monitoring were auxiliary test for chronic cough, which is important for the definitive diagnosis of chronic cough [3]. If symptoms, signs, and examinations could not establish definitive diagnosis, unusual diseases should be considered and pay attention to the role of medical history and bronchoscopy [10-12]. In this case, the patient had a transient cough with blood stasis after eating fish porridge six months ago and then he was diagnosed as bronchitis for a long time, for which the ineffective treatment was begun. The medical history suggests that there may be bronchial foreign body, and the fish bone wrapped around by granulation tissue in the upper left lobe was found.

Conclusion

In the diagnosis of chronic cough, we should pay attention to the importance of medical history and bronchoscopy.

References

1. Chung KF, Pavord ID. Prevalence, pathogenesis, and causes of chronic cough. Lancet. 2008; 371(9621):1364-74.
2. Lai K, Pan J, Chen R, Liu B, Luo W, Zhong N. Epidemiology of cough in relation to China. Cough. 2013;9:18.
3. Lai K. Chinese National Guidelines on Diagnosis and Management of Cough: consensus and controversy. J Thorac Dis. 2014;6(Suppl 7):S683-8.
4. Dicpinigaitis PV, Morice AH, Birring SS, McGarvey L, Smith JA, Canning BJ, et al. Antitussive drugs--past, present, and future. Pharmacol Rev. 2014;66(2):468-512.
5. Mello CJ, Irwin RS, Curley FJ. Predictive values of the character, timing, and complications of chronic cough in diagnosing its cause. Arch Intern Med. 1996;156(9):997-1003.
6. Pan GW, Zhang SJ, Feng YP, Takahashi K, Kagawa J, Yu L, et al. Air pollution and children's respiratory symptoms in six cities of Northern China. Respir Med. 2010;104(12):1903-11.
7. Pierse N, Rushton L, Harris RS, Kuehni CE, Silverman M, Grigg J. Locally generated particulate pollution and respiratory symptoms in young children. Thorax. 2006;61(3):216-20.
8. Irwin RS, Corrao WM, Pratter MR. Chronic persistent cough in the adult: the spectrum and frequency of causes and successful outcome of specific therapy. Am Rev Respir Dis. 1981;123(4 Pt 1):413-7.
9. Lai K, Chen R, Lin J, Huang K, Shen H, Kong L, et al. A prospective, multicenter survey on causes of chronic cough in China. Chest. 2013;143(3):613-20.
10. Boufersaoui A, Smati L, Benhalla KN, Boukari R, Smail S, Anik K, et al. Foreign body aspiration in children: experience from 2624 patients. Int J Pediatr Otorhinolaryngol. 2013;77(10):1683-8.
11. Samarei R. Survey of foreign body aspiration in airways and lungs. Glob J Health Sci. 2014;6(7):130-5.
12. Folch E, Majid A. Foreign body aspiration in the elderly patient. Curr Geriatr Rep. 2015;4:192-201.