



CASE STUDY

RESPIRATORY-ASPIRATED 50*15MM RIVER SHIMP SUCCESSFULLY CLIPED BY VIRTUAL BRONCHOSCOPE WITH FOREIGN BODY FORCEPS AND AVOIDING THE NEED FOR A THORACOTOMY

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ARTICLE INFO

Article History:

Received 20th July, 2016
Received in revised form
22nd August, 2016
Accepted 28th September, 2016
Published online 30th October, 2016

Key words:

Foreign body aspiration,
River shrimp,
Flexible bronchoscope.

ABSTRACT

Respiratory Foreign body Aspiration (FBA) is a suddenly life-threatening emergency. But, it is a seldom elaborated in textbooks. The most common site for that is the right low bronchus or its bronchus intermedius as it is more wider, shorter and vertical. Most of the patients are children, and their atypical symptoms often cover the disease. It is required rapidly identify diseases and take measures to prevent potentially fatal complications. The treatment is usually via either endoscopic or surgical extraction. FBA of a river shrimp has been reported as a special case in the literature. Because of any eating in a hurry, sudden laughing or coughing at dinner that increases the risk of aspiration. As far as we know, this is the first case report of a 50*15mm river shrimp foreign body that has been successfully clipped by the virtual bronchoscope with foreign body forceps and avoided the need for a thoracotomy in an adult male patient.

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Citation: Ye Rui-Hai, Yang Jun-Chao, Huang Li, Ai Li-Juan, Wang Zhon-Hai and Wang Zhen, 2016. "Respiratory-aspirated 50*15mm river shrimp successfully clipped by virtual bronchoscope with foreign body forceps and avoiding the need for a thoracotomy", *International Journal of Current Research*, 8, (10), 39840-39841.

INTRODUCTION

Respiratory Foreign Body Aspiration (FBA) is a potentially life-threatening emergency. It is required prompt recognition and early treatment to prevent potentially fatal complications. The treatment is usually via either endoscopic or surgical extraction. However, it is a poorly covered topic in textbooks. In the United States, 1.4 in 100000 deaths are relevant to FBA (Zur and Litman, 2009). The majority of these are due to foreign body aspiration that lodge in the peripheral airways (segmental and subsegmental bronchi) in 26% of child and 57% of adult cases (Baharloo et al., 1999). The most common site for that is the right low bronchus or its bronchus intermedius as it is more vertical, shorter and wider (Limper and Prakash, 1990). FBA of a river shrimp has been reported as a special case in the literature, occurring most commonly in children, especially during adolescence (Lan, 1994). Because of any eating in a hurry, sudden laughing or coughing at dinner that increases the risk of aspiration. Radiographic results range from normal appearances to a visible foreign body (Li et al., 2009).

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The use of the CT technique combination of virtual bronchoscopy for confirmation and therapy is advocated to certain diagnosis in doubt (Ciftci et al., 2003). This is the first case report of a 50*15mm river shrimp foreign body that has been successfully clipped by the virtual bronchoscope with foreign body forceps and avoided the need for a thoracotomy in an adult male patient.

CASE REPORT

A 59-year-old male with no special medical history presented with a sudden of coughing and hemoptysis following accidentally aspirating a river shrimp at dinner. The clinical symptom was relative stability and a chest CT showed a long strip foreign body shadow in the right low bronchus (Figure 1). Following the failed try to cough out the foreign matter, the patient was finally referred to the flexible bronchoscope with foreign body forceps and avoided the need for a thoracotomy. Because of emergency operation, the local anesthesia of lidocaine in the airway was chosen. Considered the huge foreign body, through the mouth way to take the foreign body was taken. Bronchial lens model was Olympus EVIS IT260 which had a diameter of 2.8mm large diameter pipe pliers. Its operating access allowed for foreign body forceps to be carried out.

The rat tooth with Alligator Jaws model was FG-44NR-1 whose mouth opening rate reached 6.9mm (Figure 2). It can effectively clamp larger foreign body such as the river shrimp.

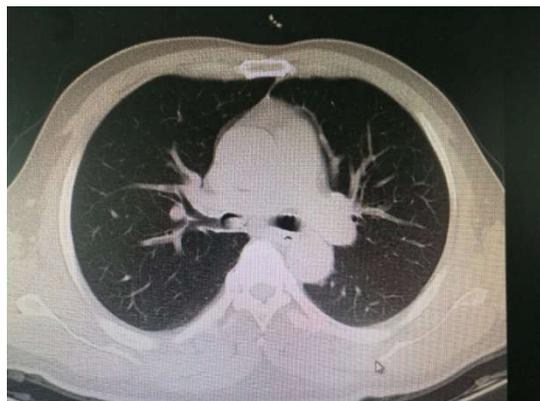


Figure 1. Chest CT showed a long strip foreign body shadow in the right low bronchus



Figure 2. The rat tooth with Alligator Jaws model was FG-44NR-1 whose mouth opening rate reached 6.9mm

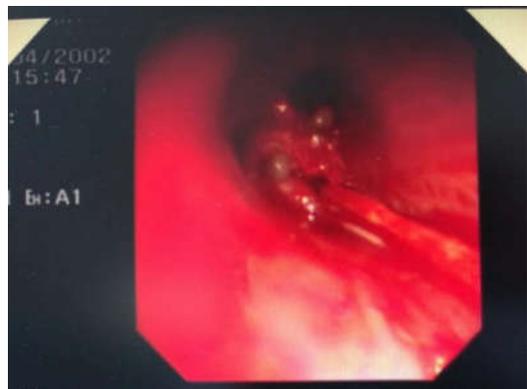


Figure 3. The river shrimp incarcerated in the right lower lobe bronchus



Figure 4. Photograph showing the 50*15mm aspirated river shrimp that was successfully retrieved by the flexible bronchoscope with foreign body forceps without fragmentation

By the virtual bronchoscopy, the huge river shrimp was lodged in the right lower lobe bronchus (Figure 3). Because of its huge volume, forceps can not effectively clamp whole shrimp. After a few failures, Shrimp was finally removed by the foreign body forceps slowly lived right inferior lobar bronchus. With the turning of patients with cough, it was finally successfully extracted without impacting on the bronchial wall. The river shrimp was removed unfragmented (Figure 4) and the need for a thoracotomy in 59-year-old male patient was avoided. After two days of anti infection treatment with Cephalosporin, patient was discharged from the hospital. There were no significant clinical sequelae follow-up six months.

Conclusion

To our knowledge, this is the first case report of a 50*15mm river shrimp foreign body that has been successfully retrieved by the flexible bronchoscope with foreign body forceps and avoided the need for a thoracotomy in an adult male patient. However, the authors wish to acknowledge the team work in bronchoscopy room. The main benefit of this case is to help patients reduce surgical risk, with a low rate of complications (Ragab *et al.*, 2007). Awakening anesthesia appropriate protection of self cough might be an effective way to get a huge foreign body except general anesthesia by rigid bronchoscopy.

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