

# Snail Choke

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## ABSTRACT

**Introduction:** Foreign body aspiration in healthy adults is uncommon, happening mainly accidentally. Despite few need medical assistance, there are cases in which the object is lodged in areas of the upper airways and specialized care is needed, namely in the removal of the item. **Case Presentation:** We report a case of a snail aspiration with consequent lung atelectasis and need of quick intervention. The foreign object remained in the right mainstem bronchi and was removed by bronchofibroscope, with successful recovery afterwards.

**Key words:** Bronchi foreign object, choking, lobar atelectasis, removal, snail

## INTRODUCTION

Airway foreign bodies are an event seen in several medical areas, ranging from emergency medicine, pediatrics, and otolaryngology. As expected, patients suffering from a foreign-body aspiration go to the Emergency room (ER), being the pediatric patients the more common, due to accidental aspiration.<sup>[1]</sup> It is uncommon in adults but potentially life-threatening, being the cough and dyspnea the most frequent symptoms. Imaging is essential to give the physician information about the object's location, remaining the bronchofibroscope the gold-standard for diagnosis and management.<sup>[2]</sup>

We present the case of a Caucasian 58-year-old woman, previously healthy, who choked on a snail, while degusting a typical, seasonal dish (boiled snails with garlic and oregano), common in South Portugal around spring time.

The patient went to the ER, complaining of wheezing, dyspnea, and cough right after the snail aspiration. Despite having oxygen saturation above 90% and normal blood gas levels with no cyanosis or signs of breathing difficulty, there was an audible wheezing in the inferior two-thirds of

the right hemithorax and, with minimum efforts, the oxygen saturation dropped to 85%, needing oxygen supplementation. There were no other aspects worthy of mention in the initial physical examination.

## MATERIALS AND METHODS

The imaging performed consisted in thorax X-ray and CAT scan, followed by bronchofibroscope. The details are resumed in the case description.

## RESULTS AND DISCUSSION

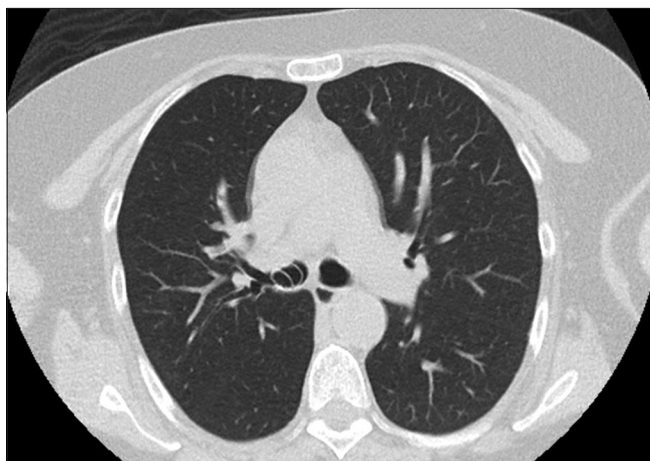
The patient underwent first a standard posterior–anterior and lateral thorax X-ray that did not show any particular sign of atelectasis or even the foreign body itself, so a computed tomography (CT) scan was followed. This examination put to evidence the foreign object located in the bifurcation of the mainstem right bronchus, with atelectasis of the inferior and medium lobe [Figure 1].

The patient was then transferred to a specialized center where she underwent a bronchofibroscope, removing the snail with no complications. After the procedure, the patient was sent

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**Figure 1:** Thoracic computed tomography scan where it can be appreciated the presence of the foreign body (snail) in the bifurcation of the mainstem right bronchus

back to our hospital for observation. In the remaining hours the patient didn't need oxygen supplementation, presenting oxygen saturations of 97%, with no complaints of cough or wheezing. She was discharged from the ER, with indication to be vigilant concerning *de novo* respiratory symptoms (wheezing, dyspnea, hemoptysis, and chest pain) or any signs of potential airway infection. There were no further complications in the month following the aspiration event. Caution was advised while eating to prevent similar episodes.

Foreign-body aspirations are rare in adults and usually are accidental. Physical examination in a patient with suspected foreign-body aspiration may be normal or may reveal nonspecific findings such as cough and hoarseness. If lodged in the trachea or mainstem bronchi, the patient usually presents with persistent cough, dyspnea to a variable degree, as well as stridor and loud wheezing in the side of the impaction or absence of breathing sounds on the affected side if there is a complete airway obstruction. Imaging is

essential in the first assessment, to identify the location of the object, i.e., thorax radiography will be entirely normal up to 35% of the cases,<sup>[3]</sup> while the CT scan is the most sensitive in this matter when a foreign-body aspiration is suspected.<sup>[4]</sup> Bronchofibroscopy (flexible or rigid, depending on the operator's skill and the situation at hand) remains the modality of choice for a majority of patients, leaving the most aggressive options (e.g., surgery) for the most complex cases, when the foreign body cannot be removed by bronchofibroscopy.

## CONCLUSIONS

Life-threatening foreign-body aspiration in adults is a medical emergency that needs to be dealt with rapidly, removing the foreign body as soon as possible. The clinical signs and symptoms vary according to the area where the foreign body is located, and the main goal is to prevent the clinical deterioration by risking severe lung injury.

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**How to cite this article:** Oliveira AL, Gomes AV, Paula A, Calixto R, de Almeida FM, Biague Q, Costa P, Vaz J. Snail Choke. *J Clin Res Radiol* 2019;2(1):1-2.