Bronchial foreign body-presentation of a case

Abstract

Foreign body aspiration is an important cause of morbidity and mortality. This condition is more frequent in children than adults. We report the case of a foreign body aspiration (snail) case, for diagnosis was indicated chest X-ray-CT scan and flexible bronchoscopy. It was necessary to perform a tracheotomy for its extraction. The antibiotic treatment was good and it had a recovery. Foreign body aspiration can be diagnostic in early or later time, depending on the symptoms. The most important factor is the prevention to avoid fatal ending.

Keywords: bronchial foreign body, imaging studies, computed tomography, bronchoscopy

Introduction

The word comes from the Latin foreign body “ekstajno” and is defined as something alien to the nature of something. Aspiration of a foreign body (CE) is more common in children than in adults. Major cause of morbidity and mortality. The severity of acute obstruction of the upper airway and complications arising from the presence of CE in the lower airway make necessary a diagnosis and early treatment.1,2

There are risk groups such as children, the mentally handicapped, the elderly and patients with swallowing disorders for different reasons3 are the international literature, especially in the US, shows a mortality rate ranging between 500 and 2000 deaths annually, predominantly male. In Chile, the mortality has decreased over time, with a current death rate of 4.99 per 100,000 population, representing 68% of deaths in otolaryngology. Regarding mortality by age, this is greater in younger than 1 year, with a rate of 90.5 per 100,000 population, then the rate drops to 0.8 per 100,000 inhabitants to 14 years, with a further increase in older adults.4

Clinical case

Male patient 46 years old with a history of health, urban origin, arrives at the emergency room with shortness of breath and cough that appeared after inhaling a live snail, which was introduced into a glass while drinking alcohol with some friends. Physical examination revealed tachypnea, respiratory rate: 22 and auscultation the presence of coarse, sibilants. Had no other relevant findings.

Is decided indicate a chest x-ray postero-anterior observed a radiopaque image as a snail in right bronchus, which was introduced into a glass while drinking alcohol with some friends. Physical examination revealed tachypnea, respiratory rate: 22 and auscultation the presence of coarse, sibilants. Had no other relevant findings.

Is decided indicate a chest x-ray postero-anterior observed a radiopaque image as a snail in right bronchus, which was decided to perform bronchoscopy but it was not possible removal. It is decided indicate computed tomography (CT) for details of their location because of the possibility of injury to the bronchus, as it was pointed (Figures 1–3). CT the presence of the snail is confirmed but this had migrated to the left bronchus being associated with hyperinflation of the lung on that side, discrete deviation of the structures of the mediastinum to the contralateral and pneumomediastinum hand, the patient reports seafood flavor in the mouth.

It was decided to refer to the Institute of Tropical Medicine “Pedro Kouri” where he performed bronchoscopy again, not being obtained extract satisfactorily since slipped and existed so tracheostomy is performed and through it the bronchoscope was introduced and EC manages to extract the proper recovery.

Discussion

The diagnosis of inhalation of a CE is usually performed immediately or later form. In early cases as in children with a clinical
picture characterized by an asphyxia syndrome and cough requiring medical advice immediately on physical examination grunts and wheezing they are heard, if an incomplete obstruction occurs is observed, observe the chest x-ray lobe hyperinflation in the case of staying in a lobar bronchus and in the case that is located in the main bronchus hyperinflation would be around the lung with mediastinal shift toward the healthy side. In the case it would produce complete obstruction atelectasis. Late diagnosis occurs when the patient is not properly valued for himself, his family or doctor. These cases are presented in tables often classified as asthma and infectious processes to repeat. The vast majority of foreign bodies are radiolucent.

There are numerous foreign bodies that can reach the airway, such as vegetable origin (seeds, popcorn, peanuts), metal (needles, screws, hardware), teeth and other types of varied nature. The vegetable cause difficulty endoscopic removal because joining with secretions increase in size and cause greater obstruction, many of them as peanuts are rich in fatty acids and cause a few hours or days an inflammatory reaction of the important mucosa. Imaging studies used more frequently are chest radiograph postero-anterior, in some cases fluoroscopy and CT, the latter is used mainly in those cases where it is not displayed on the radiograph. In literature the right bronchus is the most affected, this is explained by the increased verticality of the right main bronchus, its largest diameter, greater airflow therethrough and the location of the carina to the left of the tracheal midline among others. What happened in this patient, but because the living animal was migrated to the left. It is important to spread the sometimes fatal consequences of inhaling foreign bodies with the help of primary care and identify risk groups and an early diagnosis of them to avoid further complications and in appropriate treatments.

Summary

Aspiration of a foreign body (CE) is more common in children than in adults major cause of morbidity and mortality. A rare case is presented with a hosted snail in the left main bronchus, for diagnostic chest X-ray, CT scan and bronchoscopy was performed. Tracheostomy was necessary for extraction with flexible bronchoscope. He was treated with antibiotics and presented a favorable evolution. Bronchial foreign bodies can be diagnosed at an early stage or late depending on their symptoms, but prevention is the most important for the sometimes fatal outcomes factor usually happen.

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Conflict of interest

The author declare that there is no conflict of interest.

References

1. Perez Frias J, Caro Aguilera E, Perez Ruiz E, et al. Foreign body management. Combined bronchoscopy in a Paediatric Pulmonology Unit. An Pediatr. 2010;72(1):67–71.
2. Domingo Morera JA, Nuez Torres J, Santos Sanchez P, et al. Intrabronchial foreign body in adults: usefulness of computed tomography. Arch Bronconeumol. 1997;33(4):201–203.
3. Guillermo Reyes Y. Foreign bodies in the airways. Imedpub. 2013;9(2).
4. Cabezas L, Kuroiwa M. Foreign bodies in air. Medical Journal Clínica Las Condes. 2011;22(3):289–292.
5. Ferreras Amex JM, Andres Bergareche I, Abbey Gallego V, et al. Bronchial foreign body, an unsuspected pathology. 2012;16(13):3.
6. Swanson KL. Airway foreign bodies: what’s new? Semin Respir Crit Care Med? 2004;25(4):405–411.