

Article

Foreign Body in the Respiratory Tract

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Abstract: The article presents a case of a foreign body being in the respiratory tract for 12 years. Clinical manifestations of aspirated foreign bodies are subject to certain patterns. They are determined by the size, shape, properties and localization of the foreign body, its effect on the respiratory zones of the respiratory tract and the response of the respiratory tract to such irritation, the nature of the violation of laryngotracheobronchial patency and inflammatory changes in the lower respiratory tract and lungs.

Keywords: lungs, drug, blood, respiratory tract, foreign body, clinic, diagnosis

1. Introduction

Clinical manifestations of aspirated foreign bodies are subject to certain patterns. They are determined by the size, shape, properties and localization of the foreign body, its effect on the respiratory zones of the respiratory tract and the response of the respiratory tract to such irritation, the nature of the violation of laryngotracheobronchial patency and inflammatory changes in the lower respiratory tract and lungs [1-5].

2. Materials and Methods

The need for help is never more acute than when a foreign body enters the airways. A feeling of fear due to lack of air is accompanied by attacks of uncontrollable coughing that occurs during aspiration of foreign bodies due to inadequate irritation of the receptor zones of the larynx, lower respiratory tract and lungs. As a result, a strong reflex reaction occurs, accompanied by an attack of suffocation, coughing and temporary voice disorder. The attack is severe and may be accompanied by vomiting, temporary cessation of breathing and asphyxia. There is strong physical stress, intrathoracic, venous and blood pressure increases, tachycardia and facial cyanosis are expressed. During an attack, profuse mucus and lacrimation occurs. Coughed saliva and mucous sputum may contain fresh blood, indicating traumatic damage to the mucous membrane by a foreign body.

3. Results and Discussion

Foreign bodies in the respiratory tract can be metal and other objects, plant seeds, pieces of food, i.e. any objects that are accidentally put into the mouth and accidentally aspirated. Foreign bodies are more often localized in the right bronchus due to its topographic and anatomical features.

The clinical picture during aspiration of foreign bodies is largely determined by their type, size and location of fixation.

In contrast to a paroxysmal cough with foreign bodies in the trachea, when a foreign body is localized in the bronchus, the cough is permanent, but with a long-term presence

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of a foreign body, it is accompanied by the release of sputum with an odor, indicating reactive changes in the mucous membrane of the bronchi or pulmonary fabrics. During auscultation in such patients, dry and moist rales can be heard, weakened breathing, sometimes bronchial, is detected. These auscultatory data are characteristic of the late period of the disease; they are absent in the acute phase. In the diagnosis of foreign bodies of the trachea and bronchi, a correctly collected anamnesis is crucial. It must be supported by clinical and radiological research methods, as well as laryngotracheobronchoscopy, which is also a therapeutic method. If, for some reason, a foreign body is not recognized and, therefore, not removed, as in our case with patient M., 17 years old, the infection may spread into the pleural cavity, the formation of a lung abscess and the transition of acute inflammation to chronic, which is characterized by the formation of deep deforming bronchitis or bronchiectasis or chronic pleural epiema with the possible development of bronchopleurothoracic fistulas.

Patient M., 17 years old, applied to the pulmonology department with complaints of a paroxysmal cough with the release of mucopurulent sputum, a periodic increase in body temperature to 38°C, general weakness, loss of appetite, weight loss and sweating, in the evenings.

From the anamnesis it turned out that the patient had been suffering from cough and sputum production for more than 10 years and had been examined more than once in outpatient and inpatient settings. For cough with sputum production, she repeatedly received antibacterial therapy without much effect, and 5 years ago it was decided to undergo lung surgery. However, when examining the patient in the thoracic department, no serious pathology on the part of the lungs was identified by X-ray, and therefore she was denied surgical intervention. Subsequently, the patient received outpatient or inpatient treatment almost monthly, which resulted in temporary improvement in her condition. Due to the fact that recently the cough has become painful, with the release of a large amount of purulent, foul-smelling sputum, the coughing attack did not stop for hours, especially intensifying at night, when changing body position, turning, bending, the patient turned to doctors and was sent to the oncology clinic for examination. At the dispensary, after a clinical and radiological examination, the presence of a neoplasm in the lung was excluded, and with suspicion of a specific process in the lung, the patient was sent to the city tuberculosis dispensary. In the tuberculosis dispensary, after a clinical examination and X-ray examination, with a suspected formation in the lung, the patient was sent to the endoscopic room for a bronchological examination.

In the bronchology office, a clinical examination was once again carried out with a thorough collection of anamnesis of the disease, a survey of the patient and her parents, due to the duration of the disease. Attention was drawn to the possibility of a foreign body in the bronchus, which the patient denied.

After the parents learned about the presence of a foreign body, they remembered that when their daughter was 5 years old, there was a suspicion of penetration of a foreign body into the gastrointestinal tract or bronchi, since she had a severe coughing attack with drooling and loss of consciousness. Then the patient was completely examined. Gastroscopy, fluoroscopy of the gastrointestinal tract, and radiography of the lungs were performed, but no foreign body was found. The patient recalled that when she was 5 years old, she had a deodorant cap in her mouth and it accidentally got into her throat, after which she developed a coughing attack with all the consequences.

4. Conclusion

Subsequent monitoring of the patient's condition showed that the cough decreased, gradually disappeared, the patient recovered and currently does not have any complaints characteristic of bronchopulmonary pathology.

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