

# Flexible bronchoscopy as the first-choice method of removing foreign bodies from the airways of Children

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## Abstract

**Introduction:** The aspiration of foreign bodies into the airway (AFB) is an important cause of death in children worldwide. The incidence is higher in children aged 1-2 years. The presentation and severity depends in the degree of airway obstruction. In the event of a compatible clinical history, a bronchoscopy evaluation is needed. **Methods:** Retrospective study. Included pediatric patients who underwent bronchoscopy for removal of AFB at the Service of Respiratory Endoscopy in the period from January 2014 until June 2020. We reviewed medical and bronchoscopy records, collected information about the equipment used, foreign body location and nature, age, sex, success rate and complications. **Results:** 40 pediatric patients were treated. Children under 3 years accounted for 51% of cases with a peak incidence between 1 to 2 years accounting for 35.5% of cases. The majority of the removals were done by a flexible bronchoscopy (90%), using a basket (47,5%) or a rat tooth forceps (35%). The overall removal success rate was 100%. Complications occurred in 3 cases (7.5%). No deaths were reported. **Discussion:** The bronchoscopic removal of AFB in children is a complex and demanding procedure with a high potential for complications. Historically, rigid bronchoscopy has been the gold standard for the treatment of pediatric foreign body inhalation, but several authors have described flexible bronchoscopy as a diagnostic and therapeutic method for the removal of AFB. Our results show that, in most cases, flexible bronchoscopy is a safe and effective for the removal of AFB.

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