

Management of Foreign Bodies in The Larynx and Tracheobronchial Tree of Children

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Abstract

One hundred and twelve cases of foreign body (FB) in the larynx and tracheobronchial tree in children from 3 month-S years of age are reported. The FB's were removed through a tracheotomy using killian nasal speculum, head light and foreign body holding forceps or long artery forceps. There was no mortality or significant morbidity with this management (JPMA 34:- 369 1984).

Introduction

Cases of foreign bodies in respiratory tract both common¹ and unusual^{2,3,4} have been reported and various methods for their removal have been employed. Currently both upper and lower

Bronchoscopy^{1,5} is being widely used and lately the fiberoptic bronchoscope has been found practical and safe for the removal of small foreign bodies.

This study was conducted to document the clinical presentation, type of common FB, sites of impaction and the results of tracheostomy in the management of these cases.

Material and Methods

The clinical features and results of investigation of 112 cases were recorded in detail. initially in two patients bronchoscopy was done for the removal of the FB under general anaesthesia and both of them died. Tracheostomy under local anaesthesia was therefore employed for removing both upper and lower FB. A long bladed Killian nasal speculum and head light were used to visualise the foreign body. It was removed with a foreign body holding forceps if easily accessible or a small bronchoscope was passed through the tracheostomy if it was too far down. Occasionally it was removed with a sucker.

The tracheostomy tube was removed 2-5 days after the procedure. Antibiotics like Ampicillin or Amoxicillin were used for a week after tracheostomy.

Results

Of 112 patients seen over a period of 4 years, 76% were between 3 months to 3 years of age and 85% belonged to the lower socioeconomic group (Table I).

Table I**Distribution of Age and Social Status of Patients.**

Age	No.	%
3 Months – 3 Yrs.	86	76.78
3.1 – 5 Yrs.	26	23.22
Low	95	85
Middle	17	15

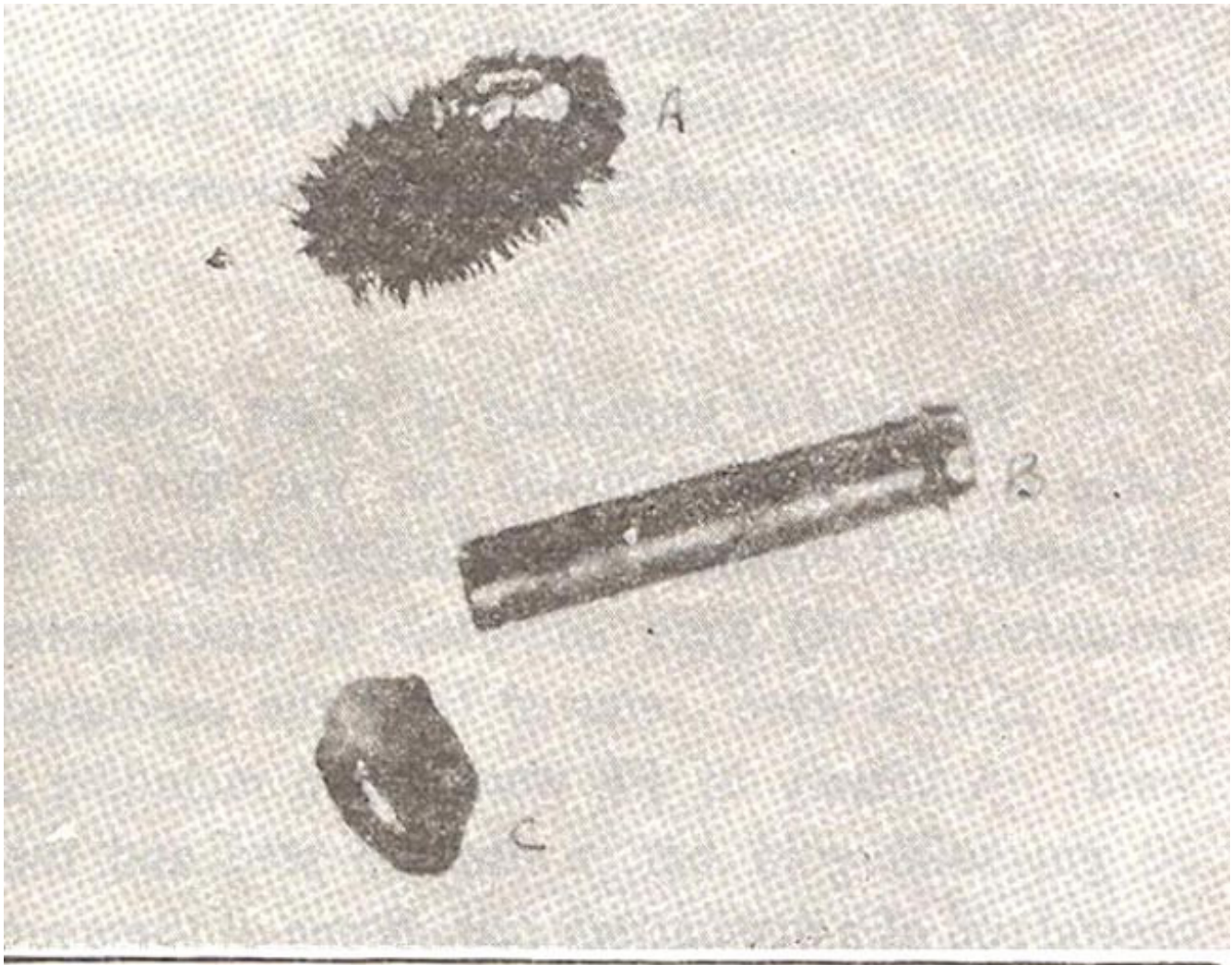
The sites of impaction of FB are shown in Table II.

Table II**Site of Impaction of FB.**

Site	No
Right main bronchus	78
Trachea	17
Left main Bronchus	9
Larynx	7

The most common site was right main bronchus and the next was trachea. Majority of patients (74.7%) were admitted as emergencies while 25.23% were referred from the paediatric ward. A variety of FB were found including a 30 gm solid gold bar, a dhatura seed and the central rod of a dry battery cell. Some of these are shown in Fig 1 and 2.





There was no mortality or significant morbidity with the management described and there were no failures.

Discussion

FB inhalation especially by children may be even more of a problem in our areas than in the developed world since the over worked mother of a large family does not have time to supervise the eating and play of the toddler in her family who is generally left in the care of an older sib who may also be no more than a child. One hundred and twelve cases reported are an underestimation of the actual frequency for FB inhalation and a very small percentage of the population is able to use the facilities of a teaching hospital. The type FB inhaled varies from area to area. However peanuts, nails, screws and small plastic objects were the common type removed by us. The unusual ones in the present series were the 30 gm gold piece inhaled by the son of a jeweller, the central rod of a dry battery cell and a spiky dhatura seed. Bronchoscopy is the recommended method for removal of FB^{1,5}. However an experienced ENT surgeon and expert anaesthetist are essential pre-requisites for the procedure. Moreover special equipment like the Sander's Injector for anaesthesia, various sizes of bronchoscopes and a variety of grasping forceps are needed. In the developing countries these are generally not available and one has to do with whatever is at hand.

We were able to successfully locate and remove the FB with the technique described which had no

mortality and very little morbidity. This type of management is therefore recommended for the developing countries.

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