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## Case Report

### Anaesthetic Management of Near Total Airway Obstruction

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#### ABSTRACT

Foreign body aspiration is a common occurrence in paediatric age group less than 4 years all over the globe.

A two and half year old female child weighing 12 kilograms (Kg) was brought to casualty with history of (h/o) foreign body (upper end of broken adult size toothbrush) aspiration while playing. Parents gave h/o noisy breathing, inability of the child to vocalize. On examination patient was drowsy, floppy with drooling of saliva and respiratory distress. There was grunting, inspiratory stridor with intercostal muscle retraction and active accessory muscles of respiration. Respiratory rate was 74/minute (min), pulse rate 124/min and oxygen saturation (SPO<sub>2</sub>) 85% on room air. On auscultation bilateral crepitations were present. X-ray neck revealed a large oropharyngeal foreign body.

Patient was immediately shifted to operation theatre (OT). After intravenous (IV) cannulation atropine 0.2 milligram (mg), hydrocortisone 50mg and fentanyl 20 microgram ( $\mu$ g) was given. A total titrated dose of Inj thiopentone 50 mg slow intravenously (IV) was given for induction and maintenance with oxygen flow rate of 6 litres (L) and halothane 0.6% such that apnoea was avoided. Patient was maintained on spontaneous ventilation since positive pressure ventilation through bag and mask displaced the foreign body causing complete airway obstruction. Neuromuscular blocker was avoided. Direct laryngoscopy was performed and foreign body was retrieved. Child was observed for any complications in paediatric intensive care and discharged later.

**Short Running Head:** Management of near total airway obstruction

**Key words:** Paediatric age, oropharyngeal foreign body, inspiratory stridor, respiratory distress,

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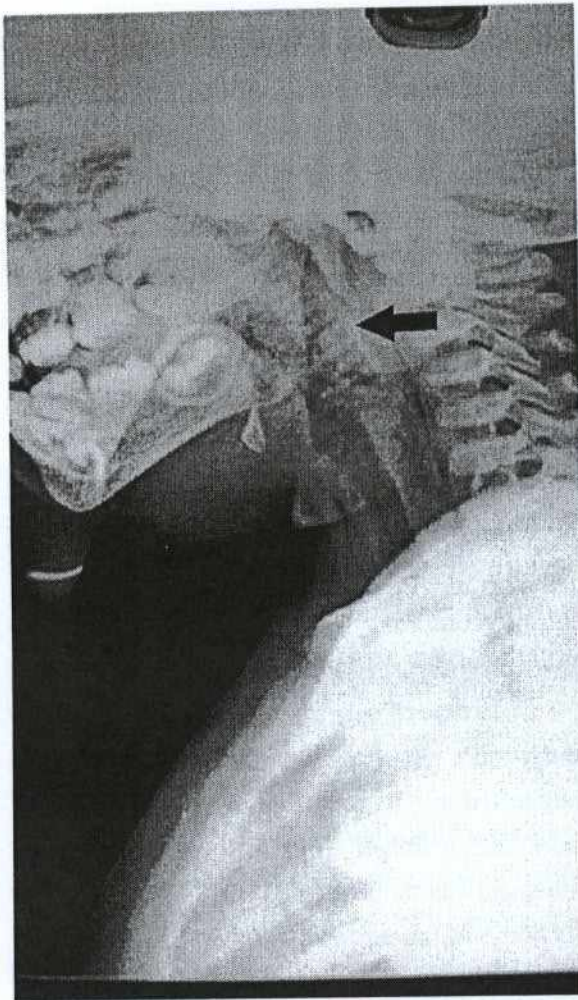
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#### INTRODUCTION

Foreign body aspiration (FBA) is a common occurrence in paediatric age group less than 4 years all over the globe as they explore their environment orally.<sup>[1]</sup> About two thirds of the cases occur in the age group between 1 to 2 years of age and 68% occurring within first 8 years of life causing nightmares to





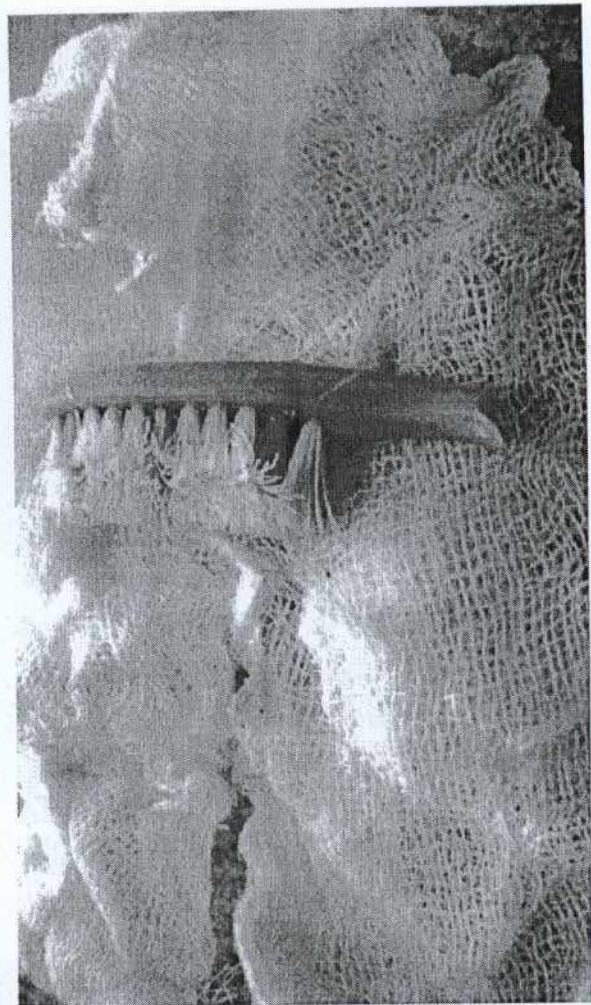
**Fig. 1: X-ray showing foreign body in oropharynx**

patient with bag and mask to rule out CAN NOT VENTILATE CAN NOT INTUBATE situation before giving muscle relaxant. Airway access by surgical means will be a better option if bag and mask ventilation is not possible.

### CONCLUSION

The morbidity and mortality due to hypoxia and airway injuries in foreign body airway obstruction is a traumatizing experience not only for the parents but also for the treating doctors.

Management depends on the location



**Fig. 2: Extracted FB (upper end of toothbrush)**

of foreign body, severity of obstruction and clinical presentation. Each child mandates individualization of the anaesthetic technique to fit the clinical situation and necessitates meticulous planning. In near total airway obstruction, though sole inhalational anaesthesia is the anaesthetic technique of choice, a combination of inhalational agent with intravenous anaesthetic and opioid was successfully used in our case to hasten induction, maintain depth and obtund airway reflexes.

In conclusion, earlier the intervention in these cases lesser the morbidity and mortality.



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