Office Procedure For Management Of Foreign Body: Cricopharynx

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Citation

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Abstract

Introduction: There are few reports of removal of impacted foreign bodies in the cricopharynx as office procedure. This is the retrospective review of 114 consecutive patients of Foreign Body Cricopharynx reporting between years January 1992 to August 2005.

Set up: Tertiary Care (Medical College) Hospital.

Material, Methods And Results: Out of 114 patients with foreign bodies in cricopharynx (average age 7.6 years), we have removed F Bs in 111 cases successfully in E.N.T. outdoors without early or late complications. The instruments used were Macintosh laryngoscope and Laryngeal foreign body forceps. Three patients were subjected for Flexible Fibreoptic Endoscopy of oesophagus, as F Bs had descended down during the course of treatment.

Conclusion: This study suggests that removal of FB in cricopharynx, as outdoor procedure, is both safe and cost effective.

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Abbreviations

F.B. (Foreign body), F.B.s (Foreign bodies)

INTRODUCTION

Out of all the emergencies, reporting in ENT/ Paediatric Surgery Department, foreign body impacted in upper GI tract is most alarming and apprehensive. A common problem in both adults and children, estimated annual incidence in USA is 120 per million population. [1]

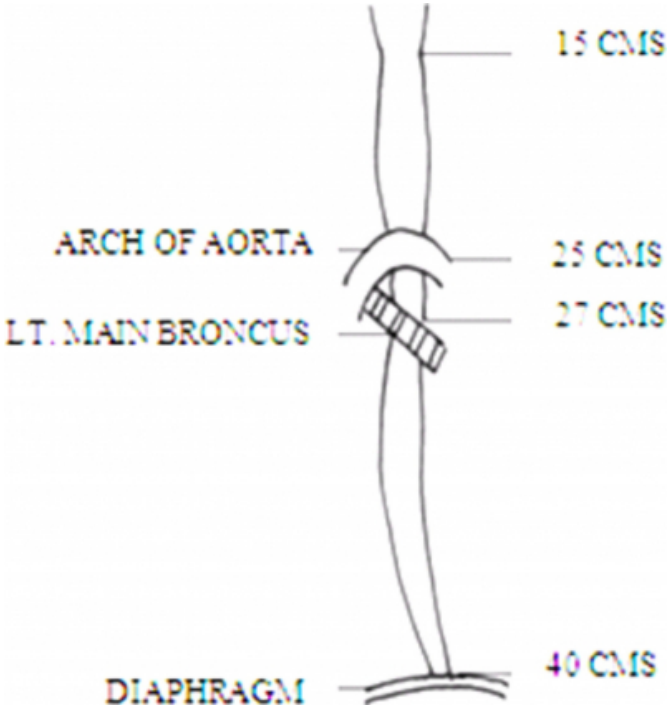
This incidence is more in children than adults, more in male child. About 1500 deaths are reported per year in USA. Less than 1 % of F.B.s results in serious morbidity. [2]

Various types of F.B. are impacted in G.I. tract. Most of them are usually coins, less common are buttons, chocolate, toffees, fishbone, and other food related F.B.s. [3, 6]

Sites of impaction are mostly at cricopharynx (70%), frequently at aortic arch indentation (20%) and rarely at oesophageal junction (10%).(Figure: 1) Oesophageal F.B. is urgent medical situation but not life threatening. [4,5].

Figure 1

Figure 1: Constrictions of Oesophagus



MATERIAL AND METHODS

Total 114 consecutive paediatric cases of foreign bodies in cricopharynx are included in this study, reporting at tertiary care Hospital, between the year January 1992 to Aug. 2005. Usual symptoms were history of ingestion of F.B., along with dysphagia, odynophagia, and sensation of foreign body in throat, excessive salivation, pain in neck, vomiting and/or retrosternal pain.

Radiograph of neck, chest and abdomen (both P.A. and lateral view) were considered essential to confirm the diagnosis. (Figure 2 & 3).

Figure 2

Figure 2: X-ray of Neck, Chest & Abdomen PA View.

Figure 3

Figure 3: Lateral X-ray of Neck & Chest

Foreign bodies other than cricopharynx were excluded from the study. The instruments used were McIntosh laryngoscope (used by anaesthesiologist for endotracheal intubation) and laryngeal foreign body forceps. (Figure 4)

Figure 4

Figure 4 : Instruments used in Laryngoscopy

Details of the patients including age, sex, accuracy of above mentioned radiograph, method of Macintosh Laryngoscopy under local anaesthesia, time required in the procedure, types of the foreign bodies found, duration of the hospital stay and complications were analysed and discussed below.

PROCEDURE

Foreign body was removed as office procedure under local anaesthesia after taking written consent. Nil by mouth, prior to the procedure was not required, as sedation or general anaesthesia was not used. The patient was not admitted and sent home after the procedure.

Anaesthesia used was Xylocaine spray 4 %, 3 times at 5 minutes interval. Patient was kept on sterile sheet in “The Rose Position”. The Child was wrapped in mummy drape to prevent movement of the patient during the procedure. Laryngoscopy examination was done by the Macintosh's Laryngoscope. Laryngoscope was put in valleculae and larynx was elevated. Palpating & grasping of F. B. was done with the laryngeal foreign body removal forceps in cricopharynx & upper end of oesophagus and F .B. was removed. (Figures 5 & 6).

Figure 5

Figure 5: Laryngoscopic Examination

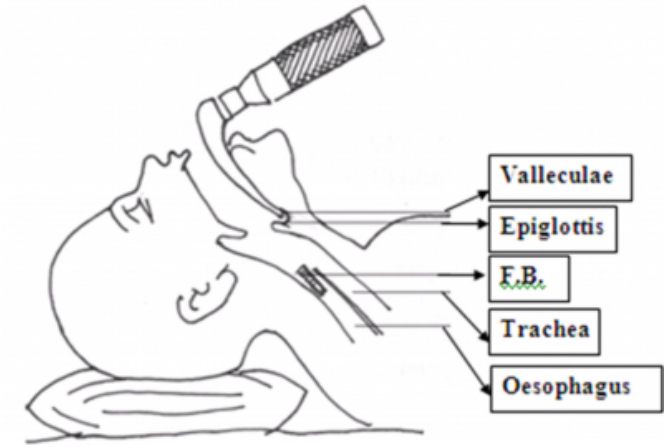
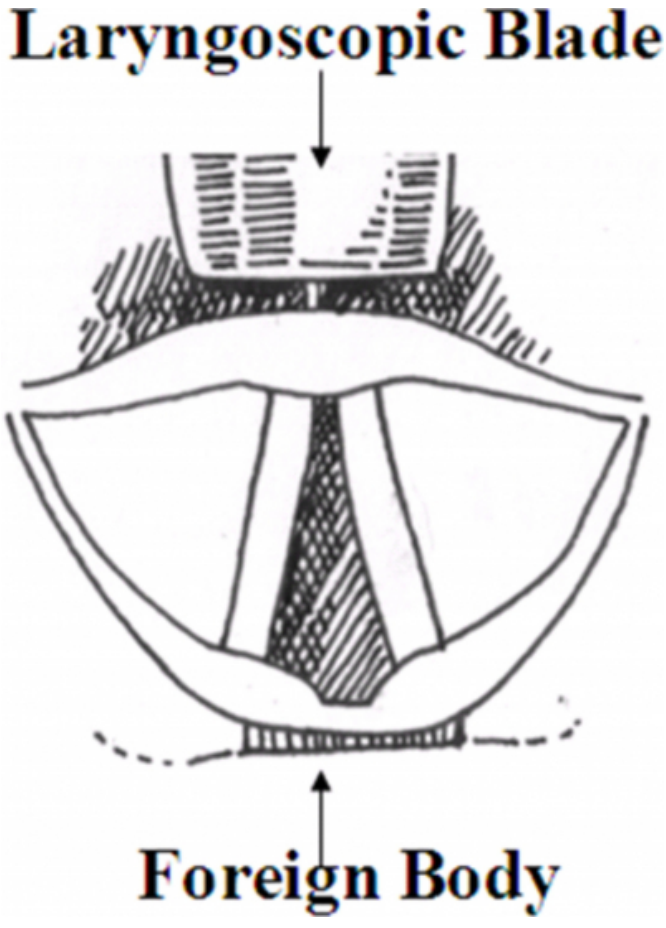


Figure 6

Figure 6: View on Laryngoscopy



Sometimes, it was a blind procedure, because F.B. could not be visualised but could be removed by palpating it with the forceps.

RESULTS

Patients' age was between 1 to 12 years. Average age was 7.6 years, out of which 65 (57%) were males and 49 (43%) were females The radiograph of neck, chest and abdomen was found to be diagnostic in 98.24% of patients. Out of 114 cases, 111 (97.3%) Foreign bodies were taken out successfully in the outdoor department immediately after the wet films of the x-rays were received. In three patients, F.B. could not be detected as they had descended down during the procedure, which was confirmed later on by repeat X-rays and removed by flexible fibreoptic endoscopy of Oesophagus.

Actual time required in the procedure was less than one minute in most of the cases. Janik & others have reported, the removal of F.B.s in 45 seconds with the Magill forceps. [7].

TYPES OF F.B.S. removed are:

Figure 7

Coins	106 (Rs. 76.5)
Ear Rings	2
Partial denture	1
Match Stick	1
Live Insect	1
Coins descended below cricopharynx and removed by flexible fibreoptic endoscopy	3
Total	114

Note :One child aged 11.5 years reported with partial denture (approximate size 2.25 cms by 1.25 cms) impaction at cricopharynx, which was removed successfully with this procedure. The patient was using partial denture for traumatic loss of lower incisor.

All patients were allowed to go home in about half hour after the procedure. There were no immediate or late complications noted with the procedure.

DISCUSSION

The most popular technique of removal of foreign body oesophagus is Rigid Oesophagoscopy. Other techniques include Flexible Fibreoptic Oesophagoscopy, Foley Catheter Technique, and Oesophageal Bougienage. [6] All these methods required general anaesthesia. Authors have studied a new way to manage foreign body impacted at upper end of oesophagus i.e. cricopharynx by using Macintosh laryngoscope under local anaesthesia .

A long stay in the hospital with Endoscopy of upper G I tract was converted into minor outdoor procedure. As the procedure relieved symptoms of foreign body impaction immediately, general anaesthesia was not required in any of

our patients. There was no immediate or late complication observed with the procedure.. Results were remarkably good as there was no mortality or morbidity. It relieved anxiety of relatives immediately as there was no time lag. It caused less apprehension to the surgeon .It saved hospital stay, therefore the cost of hospitalization was deducted. Overall cost of the treatment was reduced, as the instruments are cheaper and easily available. [8,9]

"Management protocol suggest" for patients reporting with History of foreign body ingestion is as follows:

- Examination of oral cavity and oropharynx with tongue depressor.
- X-ray of neck, chest, and abdomen (both P.A and lateral view) to determine the exact site of foreign body.
- Examination of patient with McIntosh laryngoscope and removal of F.B under local anaesthesia with laryngeal F.B forceps.
- Fibreoptic flexible oesophagoscopy, when foreign body has passed cricopharyngeal junction.
- Watchful observation of stools. .10

CONCLUSION

The history of foreign body ingestion and radiograph of neck, chest, and abdomen were found to be deciding factors for a direct Laryngoscopy examination. Authors have found Macintosh laryngoscopic examination under local anesthesia as a method of choice for foreign bodies impacted at cricopharyngeal junction. Safe, short, and cost effective management under local anaesthesia and no complications are advantages over the other conventional techniques.

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