



Otorhinolaryngology

A RETROSPECTIVE ANALYSIS OF FOREIGN BODIES IN UPPER GASTROINTESTINAL TRACT

Dr. Jerin Jacob

Resident Department of Otorhinolaryngology Yenepoya Medical College

ABSTRACT **Introduction** It is a well known fact that foreign bodies can get impacted in the pharynx and oesophagus primarily because of their size, shape and narrow segments of the GIT. Patients can come with history of swallowing a foreign body, dysphagia and, odynophagia. Plain radiographs of neck, chest and abdomen help to identify radio opaque foreign bodies, while fluoroscopy using thin barium may be required to delineate non radio opaque objects. The best method of removing impacted foreign body remains controversial. Hence we conducted this study to assess the nature, common sites, modes of presentation of various foreign bodies in food passage along with the complications of a retained foreign body and the management options.

METHODOLOGY The present study was carried out in the department of ENT, Yenepoya Medical College Hospital after obtaining the clearance from the ethics committee of the institution. Patients presenting with a history of ingestion of a foreign body were considered for the study. Data was collected by retrospective review. Results and analysis In our study 75.9% were males. 13.79% were less than 5 years, cell battery was the commonest in less than 5 years seen in 50% of children, bones were the commonest in adults seen in 66% above the age of 15 years. Only 69% knew that had ingested foreign body, FB noted in the cricopharyngeal sphincter was the commonest seen in the 12 cases (41.5%) slough and ulceration, severe inflammatory disease and a tear of mucosa was seen in 1, 1 and 2 cases respectively. In 34% forceps removal of Foreign body was possible.

Conclusion Foreign body most often lodges at the cricopharyngeal sphincter. Foreign body removal by forceps. Simple and safe and possible most often if the Foreign body seen, and must be tried.

KEYWORDS :

INTRODUCTION

It is a well known fact that foreign bodies can get impacted in the pharynx and oesophagus primarily because of their size, shape and narrow segments of the GIT¹. Patients can come with history of swallowing a foreign body, dysphagia and, odynophagia.^{2,3} Plain radiographs of neck, chest and abdomen help to identify radio opaque foreign bodies, while fluoroscopy using thin barium may be required to delineate non radio opaque objects⁴.

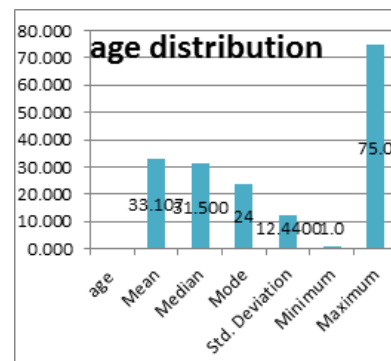
Foreign body ingestion is common in children, but is also seen among adults also. Foreign body is ingested accidentally but may occasionally be homicidal or suicidal. Most common foreign bodies in children are coins, but marbles, button, batteries, safety pins and bottle tops are also reported.⁵⁻⁷ In adults common foreign bodies are bones, sewing needles, dentures and metallic wires.⁸⁻¹⁰ Foreign bodies which have gone beyond the oesophagus most often pass uneventfully in 70-80% cases¹¹. The level at which progress is impeded are pylorus, duodenum, duodenojejunal flexure^{6,7,8,11}.

Radiological localization is mandatory for decision making regarding the removal⁴. Smooth foreign bodies do not pose much threat but may cause airway obstruction. Sharp foreign bodies, if not retrieved at the earliest may penetrate the oesophageal wall and cause complications.^{8,11} So, aggressive approach is required for sharp foreign bodies like chicken bone, safety pin, fish bones. The best method of removing impacted foreign body remains controversial. Hence we conducted this study to assess the nature, common sites, modes of presentation of various foreign bodies in food passage along with the complications of a retained foreign body and the management options.

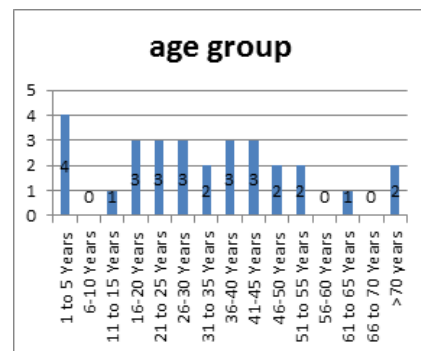
METHODOLOGY

The present study was carried out in the department of ENT, Yenepoya Medical College Hospital after obtaining the clearance from the ethics committee of the institution. Patients presenting with a history of ingestion of a foreign body were considered for the study. Data was collected by retrospective review. OP and IP records of Patients who presented to ENT department of Yenepoya Medical College Hospital with complaints of foreign body in food passage over a period of 5 years from January 2011-Dec 2015. The IP and OP records of all the patients will be analysed in detail which will include the patients history and clinical examination findings, all the investigations reports, medical, surgical treatment details, intra operative, post operative complications and management details. The data collected was statistically analyzed with SPSS software version 24.

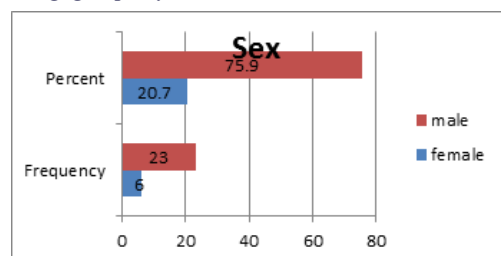
RESULTS AND ANALYSIS



Graph 1 : age distribution



Graph 2 : Age group in years



Graph 3: Sex

TABLE 1 : Agegroup in years

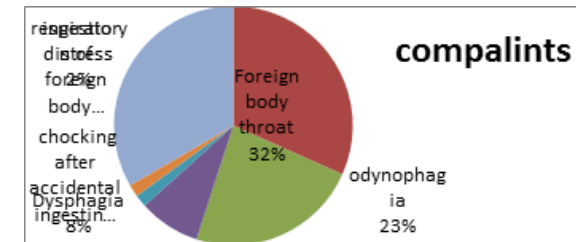
Age in years	number	percentage
1 to 5 Years	4	13.79
6-10 Years	0	-
11 to 15 Years	1	3.45
16-20 Years	3	10.34
21 to 25 Years	3	10.34
26-30 Years	3	10.34
31 to 35 Years	2	6.9
36-40 Years	3	10.34
41-45 Years	3	10.34
46-50 Years	2	6.9
51 to 55 Years	2	6.9
56-60 Years	0	-
61 to 65 Years	1	3.45
66 to 70 Years	0	-
>70 years	2	6.9

TABLE 2 : Pre-op- hospital stay

Pre-op- hospital stay	Frequency	Percent
0 days	15	51.7
1 days	14	48.3

TABLE 3 : Total duration of the Hospital stay

Total duration of the Hospital stay	number	percentage
1 day	8	27.59
2day	6	20.69
3day	6	20.69
4 day	3	10.34
5 day	2	6.9
6day	2	6.9
7 day	2	6.9



Graph 4 : complaints

TABLE 4 : type of ingestion

type of ingestion	no	%
chicken bone	6	20.7
mutton bone	3	10.3
fish bone	7	24.1
litchi seeds	1	3.4
beef	1	3.4
cell battery	2	6.9
total	20	69

TABLE 5 : procedure

procedure	number	%
Hypopharynoscopy	1	3.448276
Fb removal forceps	10	34.48276
Bronchoscopy	1	3.448276
DL Scopy	2	6.896552
Rigid oesophagoscopy	7	24.13793
Hypopharyngoscopy	8	27.58621
total	29	100
procedure	number	%
Hypopharynoscopy	1	3.448276
Fb removal forceps	10	34.48276
Bronchoscopy	1	3.448276
DL Scopy	2	6.896552
Rigid oesophagoscopy	7	24.13793
Hypopharyngoscopy	8	27.58621
total	29	100
procedure	number	%
Hypopharynoscopy	1	3.448276

Fb removal forceps	10	34.48276
Bronchoscopy	1	3.448276
DL Scopy	2	6.896552
Rigid oesophagoscopy	7	24.13793
Hypopharyngoscopy	8	27.58621
total	29	100

In our study 75.9% were males. 13.79 % were less than 5 years ,cell battery was the commonest in less than 5 years seen in 50% of children , bones were the commonest in adults seen in 66% above the age of 15 years . only 69% knew that had ingested foreign body , FB noted in the cricopharyngeal sphincter was the commonest seen in the 12 cases (41.5%) slough and ulceration ,severe inflammatory disease and a tear of mucosa was seen in 1 ,1 and 2cases respectively.in 34% forceps removal of Foreign body was possible .

DISCUSSION

Uyemura Pak⁵ MW, also stated that foreign-body ingestion in children is commonly seen pediatric age and most often are 93% fish bones but in our study we had cell batteries commonest seen in 50% of children . Lyons MF ¹²conducted a study and concluded that the majority of the foreign bodies in the gastrointestinal tract and concluded that require no major intervention for removal. This is similar to our study in 34% forceps removal of Foreign body was possible

Nadko stated that endoscopic removal was possible in majority of cases and was not associated with any morbidity and the overall mortality was zero¹³ .This is similar to our study Wen-KuiBao, ¹⁴conducted a study on Foreign-body extraction from the upper third of the esophagus in children and concluded that tracheal intubation forceps successfully removes esophageal foreign bodies in children because of the distinct shape of the forceps. The method is simple, feasible, and safe. This finding is similar to our study

CONCLUSION

Foreign body most often lodges at the cricopharyngeal sphincter. Foreign body removal by forceps. Simple and safe and possible most often if the Foreign body seen ,and must be tried .

REFERENCES

- Bennett AM, Sharma A, Price T, Montgomery PQ. The management of foreign bodies in the pharynx and oesophagus using transnasal flexible laryngoesophagoscopy (TNFLO). The Annals of The Royal College of Surgeons of England. 2008 Jan;90(1):13-6.
- Smith MT, Wong RK. Foreign bodies. Gastrointestinal endoscopy clinics of North America. 2007 Apr 1;17(2):361-82.]
- Phillipps JJ, Patel P. Swallowed foreign bodies. The Journal of Laryngology & Otology. 1988 Mar;102(3):235-41.
- Pinto A, Muzj C, Gagliardi N, Pinto F, Setola FR, Scaglione M, Romano L. Role of imaging in the assessment of impacted foreign bodies in the hypopharynx and cervical esophagus. In: Seminars in Ultrasound CT and MRI . WB Saunders.;2012 Oct 1;(33): 463-470.
- Uyemura MC. Foreign body ingestion in children. American family physician. 2005 Jul 15;72(2).
- Pak MW, Lee WC, Fung HK, van Hasselt CA. A prospective study of foreign-body ingestion in 311 children. International journal of pediatric otorhinolaryngology. 2001 Apr 6;58(1):37-45.
- Cheng W, Tam PK. Foreign-body ingestion in children: experience with 1,265 cases. Journal of pediatric surgery. 1999 Oct 1;34(10):1472-6.
- Shivakumar AM, Naik AS, Prashanth KB, Hongal GF, Chaturvedy G. Foreign bodies in upper digestive tract. Indian Journal of Otolaryngology and head and neck surgery. 2006 Jan 1;58(1):63-8.
- Conway WC, Sugawa C, Ono H, Lucas CE. Upper GI foreign body. Surgical endoscopy. 2007 Mar 1;21(3):455-60.
- Swanson KL, Prakash UB, McDougall JC, Midthun DE, Edell ES, Brutinel MW, Utz JP. Airway foreign bodies in adults. Journal of Bronchology & Interventional Pulmonology. 2003 Apr 1;10(2):107-11.
- Showkat SA, Mehfooz N, Beigh Z, Shafi OM, Patigaroo SA, Ahmad R. Aerodigestive tract foreign bodies: an experience at a tertiary-care hospital. Int J Med Sci Public Health. 2015 Nov 1;4(11):1551-5.
- Lyons 2nd MF, Tsuchida AM. Foreign bodies of the gastrointestinal tract. The Medical clinics of North America. 1993 Sep;77(5):1101.
- Velitchkov NG, Grigorov GI, Losanoff JE, Kjossev KT. Ingested foreign bodies of the gastrointestinal tract: retrospective analysis of 542 cases. World journal of surgery. 1996 Oct 1;20(8):1001-5.
- Bao WK. Study of foreign-body extraction from the upper third of the esophagus in children. Iranian journal of pediatrics. 2014 Apr;24(2):214.