

Acute Food Bolus Impactions: A 10-year audit of presentations at Campbelltown Hospital

Sureshkumar H, Turner I, Al-Sohaily S

1. Introduction

Acute Food Bolus Impaction (AFBI) refers to obstruction of the oesophagus due to a food bolus. Food that doesn't spontaneously pass requires urgent endoscopic removal. It is thought there is an increasing number of AFBI presentations to emergency departments in younger patients due to the increasing prevalence of Eosinophilic Oesophagitis (EOE).

2. Objectives

A review of AFBI presentations at Campbelltown Hospital provides quality assurance about successful management including endoscopy and required follow-up. Data can be compared to current literature.

This data helps gastroenterologists to predict the management of AFBI patients with respect to:

- Onset of symptoms
- Time to theatre
- Endoscopy duration
- Subsequent management
- Histological findings
- Follow-up

5. Conclusion

- All patients with initial AFBI presentations require gastroenterology follow-up to exclude main aetiology (malignancy, benign strictures, EOE)
- AFBI secondary to EOE is clinically associated with a younger demographic compared to an older cohort with other causes
- Urgent endoscopy should be provided for suspected AFBI to relieve patient discomfort and minimise harm (perforation, bleeding, airway aspiration)
- Gastroenterologists should consider excluding EOE at the initial endoscopy with biopsy, to reduce repeat endoscopy and so save costs

3. Methods

A ten-year audit (July 2013-July 2023) of Campbelltown Hospital for all recorded cases (n=271) of AFBI was performed: The demographics, symptoms, investigations, time to endoscopy, endoscopic findings, interventions (n=245) and follow-up were recorded from Electronical Medical Records (EMR). The audit was approved by SWSLHD Research and Ethics Office as a Quality Improvement project – low-risk audit DA23/010.



4. Analysis

AFBI was identified in 82.0 of patients receiving endoscopy, with 90.1% of the whole cohort receiving endoscopy with a mean time to theatre of 15.9 hours. AFBI presentations increased over time: From 113 presentations across 2013-2018 to 158 presentations across 2019-2023. 27.6% of patients had recurrent AFBI presentations. EOE was confirmed in 32 of 99 biopsied patients. (32.3%). An age difference between the EOE (mean= 37.0 ± 16.4 years) and non-EOE cohort (mean= 58.6 ± 15.9 years) was identified.

Findings	Results	Cohort with available information (N)				
Age of presentation	56.9±19.3 Mean±SD (years of age)	271				
Procedure duration:	20.0±16.2 Mean±SD (mins)	175				
Time to theatre:	15.9±47.9 Mean±SD (hrs)	242				
Endoscopy	90.1 (% of whole cohort)	245				
Food bolus found	79.1 (% of endoscopy patients)	201				
Follow-up	% of F/U cohort					
Gastroenterologist	57.0	155				
Other	40.4	110				
No follow up	10.7	29				
Previous_AFBI_presentation	27.6 (% of whole cohort)	75				

	Biopsy cohort (n=104)	EoE (n=32)	Non-EoE (n=67)	P value
Age of presentation				
Mean±SD		37.0±16.4	58.6±15.9	<0.0001*
Sex				
Male	23 (71.9%)	46 (68.7%)		0.7
Female	9 (28.1%)	21 (31.3%)		
Procedure duration (mins)				
Mean±SD		15.8±10.3	17.9±10.8	0.4
Time to theatre (hrs)				
Mean±SD		10.8±5.9	13.5±11.1	0.11

References

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Contact details

Sureshkumar, H: Medical Student (Western Sydney University). E: 20552796@student.westernsydney.edu.au

A/Prof Turner, I: Head of Dept of Gastroenterology (Campbelltown Hospital). Clinical Dean, Macarthur Clinical School, School of Medicine (Western Sydney University). E: IAN.TURNER@health.nsw.gov.au

Dr Al-Sohaily, Sam: Consultant Gastroenterologist (Campbelltown Hospital). E: SAM.ALSOHAAILY@health.nsw.gov.au