

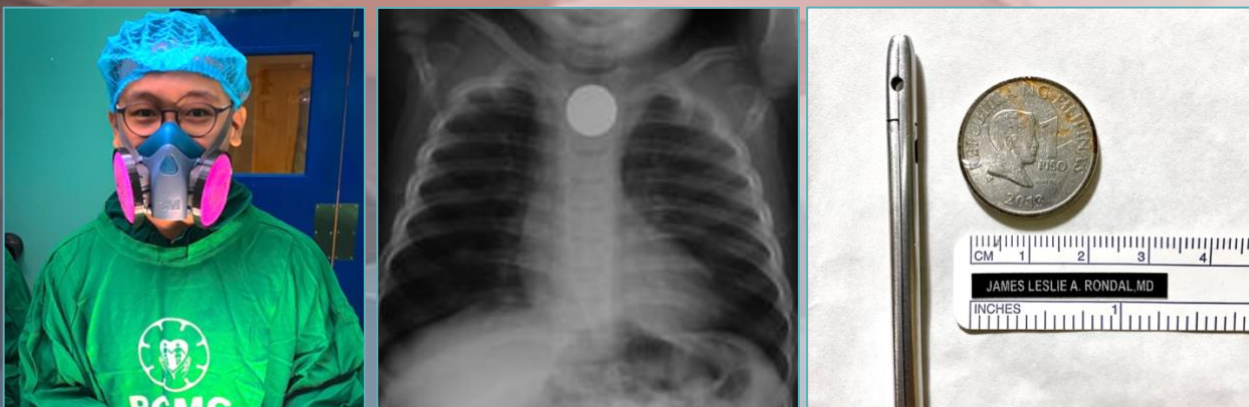


Duration of Impaction as the Risk Factor for Complications Associated with Foreign Body Ingestion in a Pediatric Referral Center in the Philippines: A 10-year Single Center Experience

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INTRODUCTION Foreign body ingestion (FBI) is still a common pediatric emergency case in the worldwide. This study aims to determine the risk factors for FBI complications, identify the complications of foreign body (FB) impaction, determine whether duration of impaction is a risk factor in the development of complications and describe the demographic and clinical profile of subjects.



METHODS This is a retrospective analytical cross-sectional study with 144 FBI subjects admitted and underwent FB removal at PCMC from January 2011 to December 2020. Association of duration of impaction and complication were analyzed using the Fisher's Exact Test. OR with 95% was calculated. P-value: <0.05 was considered significant. The percentage of demographic and clinical profiles were also determined.

KEYWORDS Foreign body ingestion, rigid esophagoscopy, duration of impaction, foreign body ingestion complications

RESULTS Majority of subjects were 1-5 year-old (49%), males (58%) and from NCR (59%). Majority were accidental (97%) and unwitnessed cases (81%). Majority of FBs were coins (53%). Majority were seen in <24 hours post-ingestion (52%) and all had dysphagia, odynophagia, reduced oral intake and drooling (100%) as the presenting symptoms. Majority were retrieved through rigid esophagoscopy (51%) at cervical esophagus (82%). Complications were swelling (100%), laceration (18%), abrasion and bleeding (13%). There is a significant association between duration and complications and between ingested FBs and complications.

Complications	Duration of Impaction				Value	P-value
	<24 hours n=75	>24 to 48 hours n=39	>48 to 72 hours n=22	>72 hours n=8		
Bleeding	12 (16%)	3 (7.7%)	2 (9.1%)	1 (12.5%)	1.777	0.602
Swelling	75 (100%)	39 (100%)	22 (100%)	8 (100%)	n/a	n/a
Abrasion	0 (0%)	0 (0%)	10 (45.5%)	8 (100%)	70.09	0.000*
Laceration	0 (0%)	0 (0%)	18 (81.8%)	8 (100%)	105.342	0.000*
Burns	4 (5.3%)	0 (0%)	0 (0%)	0 (0%)	2.437	0.431

*Significant at 0.05 level

CONCLUSION There is a significant association between duration of impaction and complications and between ingested FBs and complications. As the duration increases, the probability of developing complications increase. Batteries, dentures and pins are more likely to cause bleeding, while batteries are more likely to cause burns.