JMSCR Vol||06||Issue||01||Page 32356-32358||January 2018

www.jmscr.igmpublication.org
Impact Factor 5.84
Index Copernicus Value: 71.58
ISSN (e)-2347-176x ISSN (p) 2455-0450
crossref DOI: https://dx.doi.org/10.18535/jmscr/v6i1.149

IGM Publication
Journal Of Medical Science And Clinical Research
An Official Publication Of IGM Publication

Case Report - Crushed Glass Ingestion

Authors
Dr C. P. Mohan. M.S[1], Dr J. Kabalimurthy M.S.[2]
[1]Postgraduate, Department of General Surgery, Rajah Muthiah Medical College, Chidambaram
[2]Professor and Head, Department of General Surgery, Rajah Muthiah Medical College, Chidambaram
Corresponding Author
Dr. C. P. Mohan
dalhousie1cp@gmail.com, doctorkabali@gmail.com
9500162223, 9994360502

Abstract
While foreign body ingestion occurs most often in children, adult ingestion has been reported. Complete clinical monitoring in suspected cases may be the actual treatment sometimes. In case of complications or if there is confirmation of foreign body, endoscopic removal or surgical removal can be indicated. We present a case of a 21-year-old male who presented to the emergency department with deliberate ingestion of Crushed Glass pieces of alcohol bottle followed with burning sensation over the chest and upper abdominal pain. The patient was admitted and necessary investigations taken. The abdominal x ray revealed specks of crushed glass pieces being coated over large bowel. Psychiatrist consultation obtained for a possible psychiatric illness. The patient was under observation for 5 days and was treated conservatively. No active internal bleed was observed. This is a case report of a patient with deliberate ingestion of crushed glass indicating the signs and symptoms and different types of management for Glass ingestion.
Keywords: *Foreign body; Glass ingestion.*

Introduction

Foreign body ingestion is one of the serious and more common problems in children. The peak age of incidence is 6 months to 6 years[1]. In case of adults, foreign body ingestion is rare. The epidemiology of adults shows accidental ingestion, like swallowing a bone, while taking food. In adults 10% cases show voluntary ingestion[2]. There will be recurrence of the complaints in patients with intellectual disability, substance or alcohol abuse, psychiatric disorders[3]. Management of these is very crucial. A multidisciplinary approach is advocated which involves medical, surgical, and psychiatric interventions. In some instances, where underlying psychiatric illness was identified, certain types of management can be counterproductive. The majority of the time, 80-90%, the foreign body pass without intervention, 10- 20% of the time endoscopic visualization and removal is necessary, and in < 1% of cases warrant surgical removal[4-9].

Conservative management with close monitoring is needed in most cases. Despite conservative management if there is occurrence of complications, endoscopic removal is safe and

effective [10]. Risk can be estimated based on type, shape, and location of foreign body, symptoms, signs, time since ingestion, and signs, evidence of complications including perforation or bleeding [11]. Magnets and batteries are much dangerous. When more than one magnet is ingested they have a tendency to attract each other through the gastrointestinal wall. This may lead to bowel necrosis, perforation, obstruction, fistula, volvulus, or even death [12].

If there is ingestion of batteries special concern should be taken. Risks include generation of current, battery leakage, pressure necrosis, and heavy metal poisoning[13]. Absolute indication for surgical intervention is perforation in the gastrointestinal tract. Relative indication includes obstruction, which cannot be managed conservatively or through endoscopy.

Case Report

21-year-old male who presented to the emergency department with deliberate ingestion of Crushed Glass pieces of alcohol bottle followed with burning sensation over the chest and upper abdominal pain. There was no history suggesting upper GI or lower GI bleed. Vitals were stable. Complete physical examination revealed a soft abdomen, no distension, no tenderness, with no signs of peritonitis like guarding or rigidity of the abdomen. Chest examination was normal with normal breathing and no added sounds. Radiological investigations showed no evidence of perforation; however several glass particles were visible throughout the gastrointestinal tract (Fig. 1.2). He had no previous history of similar complaints. The patient was in close clinical observation with continuous monitoring of vitals for 4 days. There was no sign of complication due to the ingestion of the glass particles and he showed considerable improvement of the symptoms. Psychiatric opinion was obtained. Since there was no complication, the patient was discharged with strict advice to review if there were any suggestive symptoms.

Figure 1.1 showing x-ray of Neck, Chest and Abdomen where the abdomen x-ray showing multiple opacities

Figure 1.2 showing multiple specks of opacities all over the large bowel.

Discussion

Cases of intentional glass ingestion in adults are rare, so there is no special guideline to approach them. In these cases it is expected to see oral cavity laceration, oral bleed, inability to swallow, neck pain, abdominal pain and chest pain. In order to identify the site, number of particles, size and

also to evaluate the complications like perforation, radiography including X ray or sometimes CT abdomen is suggested as the initial screening method[14]. Although glass foreign bodies are opaque on x-rays, the size of the glass particles is the limiting factor of the radiographic detection and that 0.5 to 2 mm fragments represents the "limited detection" size range[15]. Endoscopic extraction is well accepted and recommended as a form of treatment for swallowed foreign body in upper GI tract, however conservative management is also effective and preferable when foreign bodies have passed the oesophagus within days without any difficulty[16]. This is the treatment of choice of the blunt, short (<6cm) and narrow (2.5 cm diameter) foreign bodies, especially once they crossed the pylorus. A multidisciplinary approach is crucial when dealing the patients with repetitive deliberate ingestion, as underlying psychiatric diagnosis is often present.

References

1. Cheng W, Tam PK. Foreign-body ingestion in children: experience with 1,265 cases. J Pediatr Surg. 1999; 34(10):1472-1476.
2. O'Sullivan ST, Reardon CM, McGreal GT, Hehir DJ, Kirwan WO, Brady MP. Deliberate ingestion of foreign bodies by institutionalised psychiatric hospital patients and prison inmates. Ir J Med Sci. 1996;165(4):294-296.
3. Palese C, Al-Kawas FH. Repeat intentional foreign body ingestion: the importance of a multidisciplinary approach. Gastroenterol Hepatol (N Y). 2012; 8(7):485-486.
4. Webb WA. Management of foreign bodies of the upper gastrointestinal tract: update. Gastrointest Endosc.1995; 41(1): 39-51.
5. Sung SH, Jeon SW, Son HS, Kim SK, Jung MK, Cho CM, Tak WY, et al. Factors predictive of risk for complications in patients with oesophageal foreign bodies. Dig Liver Dis. 2011; 43(8):632-635.
6. Chiu YH, Hou SK, Chen SC, How CK, Lam C, Kao WF, Yen DH, et al. Diagnosis and endoscopic management of upper gastrointestinal foreign bodies. Am J Med Sci. 2012; 343(3):192-195.
7. Ginsberg GG. Management of ingested foreign objects and food bolus impactions. Gastrointestm Endosc. 1995; 41(1):33-38.
8. Peng A, Li Y, Xiao Z, Wu W. Study of clinical treatment of esophageal foreign body-induced esophageal perforation with lethal complications. Eur Arch Otorhinolaryngol. 2012; 269(9): 2027-2036.
9. Ikenberry SO, Jue TL, Anderson MA, Appalaneni V, Banerjee S, Ben-Menachem T, Decker GA, et al. Management of ingested foreign bodies and food impactions. Gastrointest Endosc. 2011; 73(6):1085-091.
10. Katsinelos P, Kountouras J, Paroutoglou G, Zavos C, Mimidis K, Chatzimavroudis G. Endoscopic techniques and management of foreign body ingestion and food bolus impaction in the upper gastrointestinal tract: a retrospective analysis of 139 cases. J Clin Gastroenterol. 2006;40(9):784-789.
11. Smith MT, Wong RK. Foreign bodies. Gastrointest Endosc Clin N Am. 2007;17(2):361-382, vii.
12. Liu S, Li J, Lv Y. Gastrointestinal damage caused by swallowing multiple magnets. Front Med. 2012;6(3):280-287.
13. Litovitz T, Whitaker N, Clark L, White NC, Marsolek M. Emerging battery-ingestion hazard: clinical implications. Pediatrics. 2010;125(6):1168-1177.
14. Mosca S, Manes G, Martino R, Amitrano L, Bottino V, Bove A, et al. Endoscopic management of foreign bodies in the upper gastrointestinal tract: report on a series of 414 adult patients. Endoscopy. 2001; 33(08): 692–6. [PubMed]
15. Courter BJ. Radiographic screening for glass foreign bodies-what does a "negative" foreign body series really mean? Annals of emergency medicine. 1990;19(9):997-1000. [PubMed]
16. Ng K. Retention of an ingested small blunt foreign body. Journal of the Belgian Society of Radiology. 2011;94(6) [PubMed]