

Case Report

An unusual foreign body tooth brush in esophagus: a case report

Shashidhar K^{1*}, Ashwin K. Hebbar², Leena K³

¹Associate Professor, ³Senior Resident, Department of ENT, Karnataka Institute of Medical Sciences, Hubli, Karnataka, India

²Assistant Professor, Department of General Surgery, Shimoga Institute of Medical Sciences, Shimoga, Karnataka, India

Received: 18 July 2013

Accepted: 4 August 2013

*Correspondence:

Dr. Shashidhar K,

E-mail: drshashi75@rediffmail.com

© 2013 K Shashidhar et al. This is an open-access article distributed under the terms of the Creative Commons Attribution Non-Commercial License, which permits unrestricted non-commercial use, distribution, and reproduction in any medium, provided the original work is properly cited.

ABSTRACT

We report a rare case of accidental toothbrush swallowing by a normal adult which was successfully removed by rigid esophagoscope. A 25 year young man presented to casualty of KIMS, Hubli, with ingestion of toothbrush accidentally half an hour before. Patient's general physical examination and systemic examination was normal. Oral cavity, oropharynx and indirect laryngoscopic findings were normal. An emergency upper GI Endoscopy was done and foreign body was confirmed to be present at 35 cm from upper incisor teeth. Foreign body was removed by rigid esophagoscope under GA. Otolaryngologist is the most common medical faculty consulted for management of aero digestive foreign bodies. Toothbrush swallowing in normal adults is a rare accident. Most of them are found in esophagus and spontaneous passage is unknown and hence the need for early removal.

Keywords: Toothbrush, Esophagus, Rigid esophagoscopy

INTRODUCTION

Foreign bodies of upper aero digestive tract are commonly dealt by otolaryngologist. In adults foreign body ingestion is usually accidental. Fortunately vast majority of ingested objects pass through gastrointestinal tract spontaneously and only about 20% need intervention in removal either by endoscope or surgical removal.^{1,2} Tooth brush is a rare esophageal foreign body and because of its shape and size it cannot pass the gastrointestinal tract spontaneously.³ So far only 40 incidents of toothbrush swallowing have been reported in 11 articles from 1988 to 2000 according to MEDLINE search.^{1,4} It is more common among females in the age group of 15-23 affected with bulimia or anorexia nervosa.^{1,5,6} Here we report a rare case of accidental ingestion of toothbrush in a 25 year male with absolutely no history of any medical illness.

CASE REPORT

A 25 year young man presented to casualty of KIMS, Hubli, with history of ingestion of toothbrush accidentally half an hour before. Patient gives history that he was brushing his tooth and simultaneously working at a construction site. He was trying to pass a brick upwards with his neck extended when he accidentally swallowed the brush. He complained of mild discomfort in epigastric region following the episode. There was no history of cough, dysphagia or dyspnoea following the incident. There was no history of mental illness or eating disorder. Patient's general physical examination and systemic examination was normal. Oral cavity, Oropharynx and indirect laryngoscopic findings were normal. X ray was inconclusive.

An emergency flexible upper GI Endoscopy was done and foreign body was confirmed to be present at 35 cm

from upper incisor teeth. Patient was taken up for rigid Oesophagoscopy and removal under GA. Foreign body was visualised at lower end of esophagus and removed with forceps. Patient was on ryles tube for 1st post-operative day which was removed later. Patient was discharged on 2nd post-operative day.

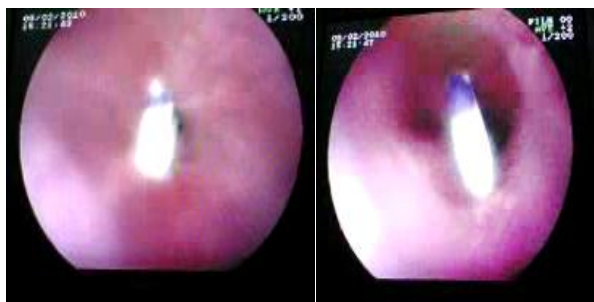


Figure 1: Endoscopy picture of foreign body toothbrush.



Figure 2: Endoscopically removed toothbrush.

DISCUSSION

Ingestion of foreign body is commonly encountered in children. In adults it is seen in people with intellectual impairment, psychiatric illness, alcoholism or elderly people wearing prosthesis.⁷ Commonly swallowed objects are coins, buttons, and small bones. Foreign body ingestion in adults is rare and toothbrush ingestion is very rare. X ray was not very conclusive and hence flexible upper GI Endoscopy was done. As spontaneous passage of brush was unlikely, active intervention in the form of rigid oesophagoscopy and removal was undertaken. If it passes beyond the lower oesophagus endoscopic removal becomes very difficult and laparotomy and removal has to be done which becomes an elaborative procedure with its own morbidity. An early and initial extraction strategy is to consider esophagoscopy and removal. After passage from stomach it is likely to be impacted in duodenum at junction of 2nd and 3rd part and at ligament of Trietz.³ Prompt and early intervention is of paramount

importance to avoid complications like pressure necrosis causing gastritis, ulceration and perforation.

Till date no spontaneous passage of toothbrush has been reported. First successful removal was reported in 1983.^{7,8} And to avoid complications prompt esophagoscopy removal is recommended. Patients with underlying bulimia and anorexia may have a tendency to repeat such act of toothbrush swallowing and finding an unusual foreign body in esophagus or stomach should arise suspicion of these disorders.⁴

CONCLUSION

Accidental ingestion of foreign bodies is common in our day to day busy life. Most of them pass spontaneously, but in some cases of unusual foreign bodies like toothbrush which cannot come out spontaneously, early intervention by esophagoscopy and removal is of paramount importance to prevent unnecessary complications and morbidity associated with laparotomy.

Funding: None

Conflict of interest: None declared

Ethical approval: Not required

REFERENCES

1. Kim IH, Kim HC, Koh KH, Kim SH, Kim SW, Lee SO, Lee ST. Journey of a swallowed toothbrush to the colon. Korean J Intern Med. 2007 Jun;22(2):106-8.
2. Ginsberg GG. Management of ingested foreign objects and food bolus impactions. Gastrointestinal Endoscopy. 1995; 41:33-38.
3. S. Gulati, R. Wadhwa, J. Singh Gulia, A. Hooda. Tooth Brush in Stomach. The Internet Journal of Head and Neck Surgery 2007;1(2).
4. Faust J, Schreiner O. A swallowed toothbrush. Lancet. 2001;357:1012.
5. Kirk AD, Bowers BA, Moylan JA, Meyers WC. Tooth brush swallowing. Arch Surg. 1988;123:382-4.
6. Piddlesberger MM, Jr, Cohen HL, Glick PL. The Swallowed toothbrush: a radiographic clue of bulimia. Pediatric Radiol. 1991;21:262-4.
7. Xin-Liang Lu, He-Long Cao and Ke-Da Qian: Endoscopic removal of an Accidentally Swallowed Toothbrush. Inter Med 2008;47:1797-8.
8. Ertan A, Kedia SM, Agarwal NM, Akadamar K. Endoscopic removal of a toothbrush. Gastrointest Endosc 1983;29:144-5.

DOI: 10.5455/2320-6012.ijrms20131147

Cite this article as: K Shashidhar, Hebbar AK, K Leena. An unusual foreign body tooth brush in esophagus: a case report. Int J Res Med Sci 2013;1:574-5.