

An Unusual Sharp Foreign Body Esophagus: A Razor Blade

R Wadhera, S Gulati, A Garg, A Ghai

Citation

R Wadhera, S Gulati, A Garg, A Ghai. *An Unusual Sharp Foreign Body Esophagus: A Razor Blade*. The Internet Journal of Head and Neck Surgery. 2006 Volume 2 Number 1.

Abstract

Sharp and pointed foreign bodies in esophagus can result in potentially fatal complications. They can be removed safely by rigid esophagoscopy avoiding open surgical methods. Open surgical intervention is needed in cases of perforation or abscess formation. We report a rare case of impacted razor blade in esophagus, in a 7 year old child, which was successfully removed by rigid esophagoscopy.

INTRODUCTION

The inherent curiosity of children may lead them to ingest many types of objects. Adults may swallow non-food objects accidentally or deliberately, when an underlying mental illness or a suicidal cause should be ruled out. Though any foreign body impacted in esophagus should not be taken lightly but sharp ones need urgent attention. The esophagus is a passive and inadaptible organ and its peristalsis is not strong enough to prevent its retaining swallowed objects of many kinds. Hence, perforation from a foreign body is more likely to occur in the esophagus than in the rest of gastrointestinal tract.

Sharp foreign bodies can cause erosion, perforation of the esophageal wall or can get embedded in it. Foreign bodies perforating the cervical esophagus ordinarily results in para or retro esophageal abscess with or without descending mediastinitis. Cases have been reported where foreign bodies had perforated the cervical esophagus and presented subcutaneously in the neck,¹ or had migrated to thyroid gland.² Tracheo-esophageal fistula, esophago-aortic fistula have been reported.³ A case of safety pin penetrating the esophagus and pericardium and entering the left atrium has been reported.⁴

Various types of sharp foreign bodies which can be found in esophagus are pins (safety and drawing), bones, broken parts of plastic toys, wires, nails, dentures, glass pieces and tooth picks. We report a rare case of impacted razor blade in esophagus which was successfully removed without any complication.

CASE REPORT

A 7 year old male child presented in ENT outdoor with ingestion of a razor blade 5-6 hours prior. Parents gave the history of child fiddling with the blade in his mouth and they noticed that he had swallowed the blade accidentally. After that he complained of pain in throat. X-ray chest and soft tissue neck [lateral view] revealed a radio opaque shadow of a piece of razor blade at the level of T1 vertebra (Fig.). Rigid esophagoscopy was planned under general anesthesia. Blade was visualized and maneuvered inside the lumen of esophagoscope with forceps. Then blade and esophagoscope were simultaneously taken out. Check esophagoscopy was performed to rule out any mucosal injury. Postoperative period was uneventful.

Figure 1

Figure 1: X-ray chest PA view showing razor blade at upper end of esophagus



DISCUSSION

Only few cases of razor blade ingestion have been reported in literature. Sellors reported a case of razor blade in esophagus which had to be removed by transthoracic approach.⁵ Kessler et al reported another case of razor blade in esophagus which was located with the help of handheld metal detector.⁶ Hunt et al reported deliberate ingestion of razor blades leading to aortoesophageal fistula with massive haemothorax.⁷

Sharp foreign bodies can get impacted from base of tongue to lower end of esophagus. An x-ray can demonstrate a radio opaque object but a contrast study may be considered if a non radio opaque object is suspected but not localized or if perforation is suspected. Pneumomediastinum may indicate an esophageal perforation. CT scan aids in characterizing the nature of foreign body as well as the presence and extent of surrounding disease such as mediastinitis and abscess formation. It is also valuable in the assessment of complications of foreign body removal.

Sharp objects can be removed safely by rigid esophagoscopy. However if perforation has already

occurred, management of the perforation becomes the primary consideration with removal of the foreign body dependent upon patient's condition. The tip of the endoscope may be used to manipulate the foreign body to effect a more favorable presentation, to retract tissue, to create forceps space and to protect the grasp of the forceps. The sharp end or the entire foreign body itself can be introduced into the lumen of the rigid esophagoscope and removed without any risk of lacerating the mucosa during extraction. For multiple pointed objects or objects with sharp cutting edges, a large diameter rigid endoscope can be used to protect the mucosa. No such protection is possible with the flexible endoscope.⁸ There is significant risk of esophageal laceration and perforation during extraction of such a foreign body with a flexible endoscope. It is a good tool for diagnosing and locating the sharp foreign body prior to extraction or for closely inspecting the esophageal lumen, if necessary, following rigid endoscopic extraction. However the most effective treatment of foreign body accidents is their prevention. Children should be educated regarding the risks of putting objects in mouth.

CORRESPONDENCE TO

Dr. Raman Wadhera Medical Enclave, 19/9J Rohtak-124001 (Haryana) Ph: 01262-212860 E-mail: dr.wadhera@yahoo.com

References

1. Strieder JW. Surgery of the esophagus. N Engl J Med 1950; 243: 445-54.
2. Jemerin EF, Aronoff JS. Foreign body in thyroid following perforation of esophagus. Surgery 1949; 25: 52-9.
3. Henry WJ, Miscall L. Aortic-esophageal fistula. J Thorac Cardiovasc Surg 1960;39:258-62.
4. Spitz L, Kimber C, Nguyen K, Yates R, Deleval M. Perforation of the heart by a swallowed open safety-pin in an infant. J.R. Coll Surg 1998; 43(4): 114-6.
5. Sellors H T. Razor blade in esophagus : Transthoracic removal. Br J Surg 1947; 34:276-7.
6. Kessler A, Yellin A, Kessler A, Kroneberg J. Use of a metal detector in the location of a swallowed razor blade in esophagus. J Laryngol Otol.1990; 104:435-6.
7. Hunt I, Hartley S, Alwahab Y, Birkill J G. Aortoesophageal perforation following ingestion of razor blades with massive haemothorax. Eur J Cardiothorac Surg 2007;31:946-8.
8. Roffman E, Jalisi S, Hybels R, Catalano P. Failed extraction of a sharp esophageal foreign body with a flexible endoscope. Arch Otolaryngol Head & Neck Surg 2002; 128: 1096-8.

Author Information

Raman Wadhera, MS

Associate Professor, Department of Otorhinolaryngology, PGIMS

S.P. Gulati, MS

Senior Professor and Head, Department of Otorhinolaryngology, PGIMS

Ajay Garg, MS

Senior Resident, Department of Otorhinolaryngology, PGIMS

Anju Ghai, M.D.

Associate Professor, Department of Anesthesiology, PGIMS