An Innovative Technique For Removing A Foreign Body (Glass Marble) from The Esophagus - A Case Report

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Abstract

Esophageal foreign bodies are commonly removed with rigid esophagoscopy under general anesthesia, but spherical foreign bodies are difficult to remove because of inability to grasp. We present a case of successful removal of a spherical foreign body, (marble) from the esophagus in a four year old boy by a innovative technique using coin holding forceps.

Introduction

One of the most distressing otorhinolaryngeal emergencies, foreign body ingestion, is quite common in the pediatric age group. These are usually removed using rigid oesophagoscopy under general anesthesia (1). But certain foreign bodies which are hard, smooth and spherical are difficult to tackle by conventional methods for they cannot be grasped by forceps. Alternate methods which have been used for extracting smooth objects include using: 1) magills forceps, 2) foley’s catheter, 3) a balloon catheter in conjunction with tooth forceps, 4) esophageal bougienage, 5) a bougie to advance into stomach and 6) surgery (2). In this report, we describe successful removal of a spherical foreign body from the esophagus using an innovative practice.

Case Report

A 5 year boy presented to the Department of Ear Nose and Throat, Head and Neck Surgery of N.S.C.B. Medical College, Jabalpur, India with accidental ingestion of a foreign body (marble). He presented with dysphasia, but no respiratory distress. X-ray soft tissue of the neck with upper chest AP view revealed a
circular foreign body of 1cm in diameter at the T1-T2 level. Rigid esophagoscopy was performed and conventional forceps was used to hold the foreign body, but it slipped off after each attempt. A coin holding forceps was used in an innovative way to remove the foreign body. The forceps was introduced under the protection of an esophageal speculum with prongs closed, advanced through the gap between the posterior esophageal wall and the posterior part of the marble. Once beyond the marble, the prongs were opened, thus trapping the marble between the anterior wall of the esophagus and the open prongs. The forceps was pulled out slowly with the prongs held in the open position and the marble was extracted in the hypopharynx, from where it was removed successfully using the a tonsil holding forceps. The child was asymptomatic after the procedure and discharged from the hospital the next day. **Enlarged Pictures at the End of the Manuscript**

Figure 1. X-ray of the neck and chest AP-view showing foreign body marble at T1-T2 level

Figure 2. Marble and Coin catching forceps after extraction

**Discussion**

Esophageal foreign bodies in children are one of the most common emergencies that are frequently encountered in the ENT practice. Coins are the most common foreign bodies in children (3). Spherical foreign bodies, such as a marble in the esophagus, are difficult to remove by rigid esophagoscopy and conventional forceps. They require different techniques and instruments. (2) The Foley's catheter method of removing esophageal foreign bodies has gradually increased in popularity but remains controversial (1). However, there are certain contraindications for the use of the foley’s catheter technique which include foreign body ingestion more than 24 hours before surgical removal, unknown time of ingestion, and prior esophageal stricture or surgery (2). But in our case, we tried the foley’s catheter without any success. Timely use of an innovative practice, involving coin holding forceps, we were able to successfully extract a marble foreign body from the esophagus. This technique is an alternative technique which can be used to remove spherical foreign bodies from the esophagus.

**Conclusion**

A technique of using a coin removal forceps to remove a marble esophageal foreign body is described. The technique should be one of many in the otolaryngologist's armamentarium for foreign body removal.

**References**

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