

Marble Ingestion in a Neonate: Interesting Scenario

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ABSTRACT

Vast majority of swallowed objects passes through the digestive tract and is excreted, often undetected. There is a clear history of ingestion in 96% of cases and the median age was three years in a retrospective ten-year review of 327 patients. But we encountered a rare case of ingestion of foreign body by a 20 day old female baby, presented with one day history of drooling of saliva and refusal to feed. There was no respiratory distress or bluish discoloration of the baby. Incidentally there was a round radio-opaque foreign body at the level of cricopharynx seen in antero-posterior and lateral x-ray of neck and chest. The baby was planned for endoscopic removal of foreign body under general anesthesia. Foreign body upper aerodigestive tract are quite rare in neonates although they are common after 6 months of age after mouthing develops but we can suspect such rare cases whenever neonate presents with drooling of saliva and refusal to feed. Sometimes definitive history may not be available, so that high index of suspicion is needed to diagnose such cases on time which can easily be done by a plain radiograph.

KEYWORDS: Foreign body, Children, Ingestion.

INTRODUCTION

The inhalation/ingestion of a foreign body (FB) in children is a serious health problem that causes significant morbidity and mortality. The problem of foreign body ingestion and aspiration is not new, but significant dilemmas in the diagnosis and treatment of this problem remain despite major advances. Since Jackson¹ described endoscopic techniques for the removal of foreign bodies in 1936, this has remained the safest and most trusted method of treatment.

Esophageal foreign bodies can cause a myriad of symptoms ranging from complete esophageal obstruction with overflow of secretions and aspiration, to mild odynophagia or dysphagia. Often forgotten is the potential diagnosis of esophageal foreign body in children who present with respiratory complaints and symptoms including stridor, croup, and pneumonia. These symptoms are caused by the compression of the tracheal wall by large objects lodged in the esophagus. Esophageal foreign bodies are most frequently located at the narrowest portion of the esophagus, the level of the cricopharyngeus muscle.²

The treatment of choice is endoscopic retrieval under general anesthesia. The procedure should be preceded by the completion of appropriate radiographic and other indicated studies, and careful thought on the part of the endoscopist and endoscopy team. Time invested in preparation and planning will usually yield great rewards

with the successful and uncomplicated retrieval of the offending object and speedy recovery of the patient.

Despite the progress made in the field of the endoscopy and anaesthesia as well as the accumulated experience, management of inhaled/ingested foreign body remains a serious and often dramatic problem.

The vast majority of swallowed objects passes through the digestive tract and is excreted, often undetected.³ There is a clear history of ingestion in 96% of cases and the median age was three years in a retrospective ten-year review of 327 patients.³ But we encountered a rare case of ingestion of foreign body by a 20 day old female baby.

CASE DISCUSSION

There was a 2 day old female baby in our pediatric emergency presented with one day history of drooling of saliva and refusal to feed who was brought by her parent's neighbours. There was no respiratory distress or cyanosis of the baby.

Initial Management

As soon as the patient presented, a detailed history was taken regarding the exact event that brought about the aspiration or ingestion of the foreign body and the symptoms that followed the episode. The exact duration of the foreign body episode at the time of consultation was also noted.

Following the history and symptomatology, a minute examination of the oral cavity, pharynx and larynx was done using good illumination, tongue spatula. When the initial examination did not reveal a foreign body, urgent radiographs were ordered. The neck was x-rayed in the lateral and antero-posterior views, and the chest in the postero-anterior and lateral views, incidentally there was a round radio-opaque foreign body at the level of cricopharynx seen in anteroposterior and lateral x-ray of neck and chest (Fig-1). The baby was planned for endoscopic removal of foreign body under general anesthesia. Written consent was taken from parents.

Anesthesia

We planned for minimum alveolar concentration of inhalation drug (sevoflurane) and intravenous drug (propofol) and positive pressure ventilation with oxygen mask.

Operative methods

After intubation we introduced paediatric rigid hypopharyngoscope and a colourful marble was seen at the level of cricopharynx, then the foreign body was grasped firmly and it was carefully disimpacted from the surrounding mucosa. The forceps, with the foreign body in its grasp was then withdrawn till the foreign body was brought in contact with scope and removed along with the scope to prevent trauma to the surrounding mucosa. After removal, the scope was passed again to look for any mucosal injury or any underlying pathology.

Follow Up

The patient was observed for any complications in the post-operative period which was uneventful was given

feeds after 4-5 hours. The patient was discharged after 24 hours of observation and was followed up after 1 month.

DISCUSSION

Foreign body (FB) ingestion is a frequent occurrence in children, especially in their first six years of life^{4,5}, with a peak in children older than 3 years^{6,7}. Various reasons for this event can be pointed out, stressing that all the characteristics such as sex, age, socioeconomic level and parents influence are closely interrelated.⁸

Published case series demonstrate that most of these are due to coins, fish or chicken bones being ingested and that 20% will undergo operation at which no foreign body is found.^{9,10} But marble ingestion is accounted for a rare foreign body in pediatric age group. As previously mentioned the age of this baby for foreign body ingestion is very rare as the median age group of ingested foreign body is 3 year.³ Most of the foreign bodies in food passage are encountered with endoscopes, forceps and transnasal flexible laryngoesophagoscopy.^{11,12} In few cases Fogarty catheter also have been used.¹³

CONCLUSION

Foreign body upper aerodigestive tract are quite rare in neonates although they are common after 6 months of age after mouthing develops but we can suspect such rare cases whenever neonate presents with drooling of saliva and refusal to feed. Sometimes definitive history may not be available, so that high index of suspicion is needed to diagnose such cases on time which can easily be done by a plain radiograph.



Fig 1: Radio-opaque foreign body at the level of cricopharynx

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