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An Unusual Foreign Body in the Esophagus: About a Clinical Case at the Fousseiny DAOU Hospital in Kayes (Mali)

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Abstract

Summary: The foreign bodies of the esophagus remain a real challenge because of their frequency and the cost of treatment. We report the case of an unusual esophageal foreign body (hook for mosquito net) by accidental ingestion in a three-year-old child that occurred during a game. At admission, the symptoms were composed of: dysphagia, odynophagia, hematemesis. We had put the patient on antibiotic therapy and analgesic after the extraction by esophagoscopy with a rigid tube. The evolution was favorable in our observation after the extraction of the foreign body. **Conclusion:** Hooks for mosquito nets are particular foreign bodies that must be removed urgently. Rigid tube esophagoscopy under general anesthesia remains the most frequently used means for the extraction of the foreign body with less risk of complications. The best treatment remains prevention.

Keywords

Foreign Bodies, Esophagus, Hook for Mosquito Net

1. Introduction

Foreign bodies of the esophagus are quite frequent emergencies in pediatrics [1]. Button batteries, coins, needles are the most frequently ingested objects [2]. Esophagus foreign bodies are a real challenge for practitioners because of their

nature and frequency (prerogative of children of grip age most often), the emergency context they can create and the absence of qualified professionals in remote areas that delays their care often leading to complications and requires multidisciplinary care. The diagnosis is most often based on clinical examination and cervical-thoracic X-ray for radioopaque foreign bodies. Rigid tube endoscopy remains the method of choice for the extraction of these foreign bodies because it is less invasive and less at risk of complications. The best treatment remains prevention and information of parents for children because the risk is maximum between 9 and 24 months, but remains present until 6 years of age, age of grasp and adult-type feeding. We report a particular observation of a case of an unusual foreign body of the esophagus whose care was carried out at the Fousseiny Daou hospital in Kayes (Mali).

2. Clinical Case

We report a particular observation of a case that was taken care of at the Fousseiny Daou Hospital in Kayes (Mali). It was a three (3) year old patient with no history of esophageal pathology who had been referred to us by his parents for dysphagia, odynophagia, hypersialorrhoea and hematemesis in a dispute of ingestion of a foreign body (hook for mosquito net). The symptoms went back four days. There was no notion of dyspnea, cough.

At the ENT examination, we found bruises in the veil of the palate and the posterior pharyngeal wall due to an attempt to extract the body with the fingers by the parents. The rest of the ENT exam was normal. The other vital parameters were normal. The cervicothoracic X-ray performed had objectived a foreign body of metallic tone with two ends, one pointed and the other curved at the level of the upper esophageal sphincter (Figure 1) compatible with the foreign body (hook for mosquito net).

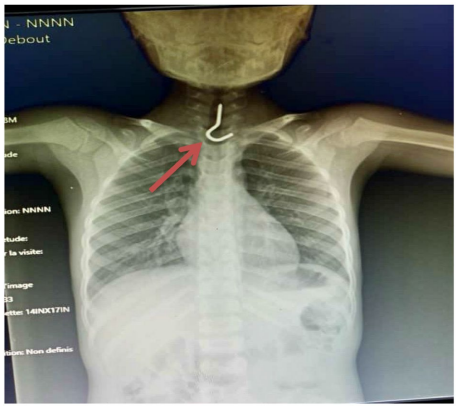

Figure 1. Cervico-thoracic radiograph showing a metallic-tone foreign body with two tips, one pointed and the other curved at the upper oesophageal sphincter.

After observing the patient on an empty gaste for 6 hours, the extraction of the foreign body was carried out under general anesthesia with orotracheal intubation

without any difficulty by a rigid tube esophagoscopy whose lighting is provided by a powerful cold light generator and a crocodile bit clamp that brought us a blood-striated mosquito hook (**Figure 2**). After the extraction, we had carried out an aspiration with a rigid tube that allowed us to observe a bleeding point related to an esophageal perforation of about 2 millimeters and the installation of a nasogastric tube (**Figure 3**) for a rest of the esophagus. The patient had been subjected to a liquid diet through the nasogastric tube and put on analgesic due to 60 mg/kg/day divided into 4 doses or 15mg/kg every 6 hours and antibiotic therapy due to 80mg/kg/day divided into 3 doses for 10 days. After 10 days of observation without complaint, we had carried out a removal of the probe.

Figure 2. Image showing blood-streaked net hook foreign body.

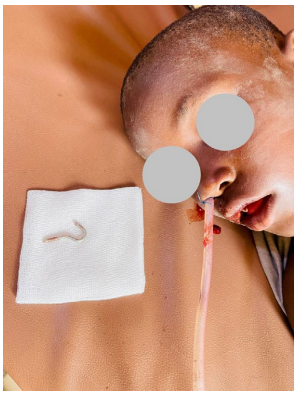

Figure 3. Image showing our patient with a nasogastric tube and foreign body.

3. Discussion

Foreign bodies of the esophagus are quite frequent emergencies in pediatrics [1]. The ingestion of foreign bodies is most often accidental and in this case, the most frequently affected child populations (80%) are young children aged 2 - 6 years [1]-[5]. The age of our patient is consistent with the data from the literature [1] [3]. In children, the mean age of onset is 2.6 years in a study of 1269 cases [3]; they remain exceptional in infants [5]. In adults, the peak frequency is in the 70th year and the authors underline the favoring role of a dental prosthesis due to the absence of food contact with the mucosa of the palate [6].

The ingestion of esophageal foreign body would be more frequent in boys and children with neurological abnormalities [1] [6] [7], which was not the case in our observation where it was a 3-year-old boy but without a neurological history. The high frequency in this age group would be explained by the transition between the age of grasping and that of adult-type feeding.

In a study, Nadège S. *et al.* [7], had found that esophageal foreign bodies would also be favored by the history of pathologies of the esophagus, such as history of atresia of the esophagus, peptic stenosis, history of fundo-plicature, our patient had no history of known esophageal pathology.

In children, the symptomatology is much more misleading: it is necessary to be attentive to the observations of the entourage: notion of vomiting, food refusal, hypersialorrhea, hematemesis. The seat of pain: suprasternal, retrosternal or epigastric has no localizing value; the worsening of pain with each swallowing movement is, on the other hand, symptomatic.

In our observation, the symptomatology that had attracted the attention of the parents was an association of dysphagia, odynophagia, hematemesis and hypersialorrhoea. Foreign bodies of the esophagus are readily asymptomatic in 8 to 20% of cases [4].

A cervical-thoracic X-ray is recommended in case of any suspicion of foreign body ingestion [3]; all metallic esophageal foreign bodies are radioopaque. It makes it possible to specify the nature of some, their location and thus, to guide the care [3] [7]. In our case, it had shown the hook-shaped foreign body with two ends, one pointed and the other curved at the level of the upper esophageal sphincter. Opacification of the esophagus with a water-soluble contrast agent can be carried out to visualize a non-radio-transparent esophageal foreign body [4], as for the CT scan, it would be especially indicated in case of failure of attempts to extract foreign bodies and would make it possible to understand the blocking mechanism or complications and to make a surgical decision [5]. These last two means of exploration were not necessary in our case.

Sixty to 80% of patients present themselves from the first 24 hours after ingestion of a foreign body, this delay is lower than that of our observation which was 4 days, but Antoine [8] reported in a study conducted in Morocco, an average delay between ingestion and consultation of 32 hours with extremes ranging from one hour to 7 days [8].

In Mali, the average consultation time was 12 hours and the extraction time of the foreign body was 7:30 a.m. [9] The delay in diagnosis and extraction in our observation would be explained by the fact that the child came from a remote village where the medical technical plateau and specialists in the field are missing for diagnosis and care. In our case, the extraction was done with a rigid tube esophagoscope under general anesthesia as reported in the literature and in a study conducted by Hounkpatin SHR and al. at 88.89% [10].

The seat of the foreign bodies of the esophagus is distributed as follows: 60% at the level of the upper esophageal sphincter, 10% - 20% at the level of the aortic

impression, 20% at the level of the lower esophageal sphincter [7]. In our observation, the foreign body was blocked at the level of the upper esophageal sphincter.

The evolution of symptoms was favorable from the first hours after the extraction of the foreign body and disappeared six days during hospitalization in our observation. However, complications of the foreign bodies of the esophagus can be serious, such as esophageal perforations, esophageal-tracheal perforations and serious infections such as abscess under the mucosal responsible for mediastinitis, bronchopneumonia, cellulite [6]. The occurrence of complications depends on the patient's cooperation, the doctor's experience, the nature of the foreign body, the location, the time to care and the availability of the technical plateau.

4. Conclusion

Ingestion of foreign bodies remains frequent accidents in pediatrics, often serious according to their nature and because of the risk of perforation of the esophagus. Hooks for mosquito nets present a risk of secondary complications although rare, however, they must therefore be extracted urgently. Rigid tube esophagoscopy under general anesthesia remains the most frequently used means in our context and in the literature for the extraction of foreign bodies from the esophagus.

Contributions of the Authors

All the authors contributed to the realization of this work. All have read and approved the final version of the document.

Ethical Consideration

The verbal consent of the patient's parents had been obtained

Conflicts of Interest

No conflict of interest.

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