The Turkish Journal of Pediatrics 31:163 - 166, 1989

A FOREIGN BODY IN A FOUR-DAY-OLD INFANT'S ESOPHAGUS: A CASE OF NEGLIGENCE*

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Key words: negligence, esophagus, foreign body

Most esophageal obstructions caused by the ingestion of foreign bodies occur in children under the age of four years[1]. The type of foreign body ingested is influenced by modes of living, customs, habits, environment and even nationality. Safety pins are found most frequently in infants seven to 15 months of age, while nuts and coins in children from one to two years and three to six years, respectively[2]. Although seen quite rarely, foreign bodies in the esophagus of neonates consist mostly of endotracheal tubes which had been swallowed; this situation often causes a delay in diagnosis[3-5]. Lisitsyn et al[6], who evaluated the incidence of foreign bodies lodged in the esophagus of neonates, found that out of 634 cases being reviewed, there were only three cases of neonates.

In this report we present a case of a four-day-old baby with a foreign body lodged in the esophagus who had been examined at other hospitals because of vomiting and respiratory distress.

Case Report

A healthy male infant was born after a normal delivery at 40 weeks gestation. He had no problems within the first three days, but on the fourth day a sudden respiratory problem occurred accompanied by a high temperature and peripheral cyanosis.

Within the following four days the patient had two admissions for pneumonia at other hospitals. At eight days of age he was finally admitted to Uludağ University Hospital suffering severe respiratory difficulty and vomiting.

Physical examination on admission revealed an infant with a temperature of 38.8°C, marked tachypnea, peripheral cyanosis and disseminated crepitant rales on lung fields. The chest x-ray showed no evidence of a foreign body (Fig. 1). Attempts at inserting a nasogastric tube failed because the tube coiled up. The

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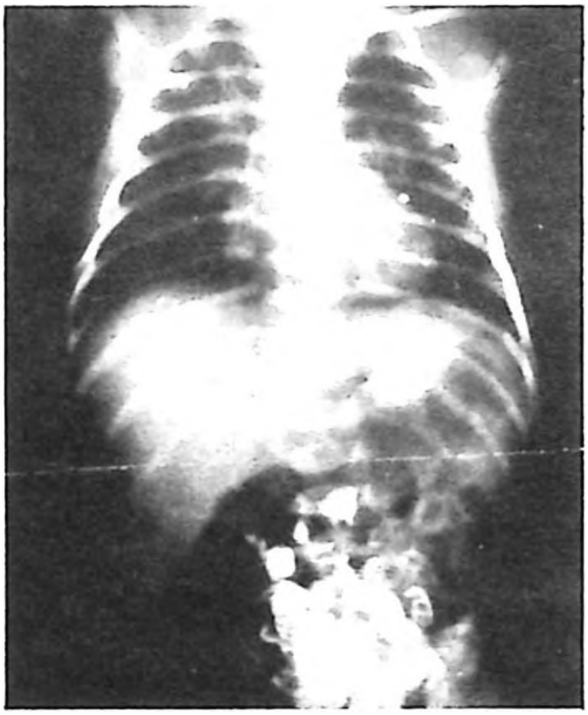

Fig. 1: Baby's chest x-ray: No signs of foreign body seen.

instillation of contrast material resulted in the visualization of an intra-esophageal obstruction (Fig. 2), the upper part of which was markedly dilated. Rigid esophagoscopy was performed under general anesthesia. Edema and inflammation were present. An esophageal foreign body, which turned out to be an ordinary

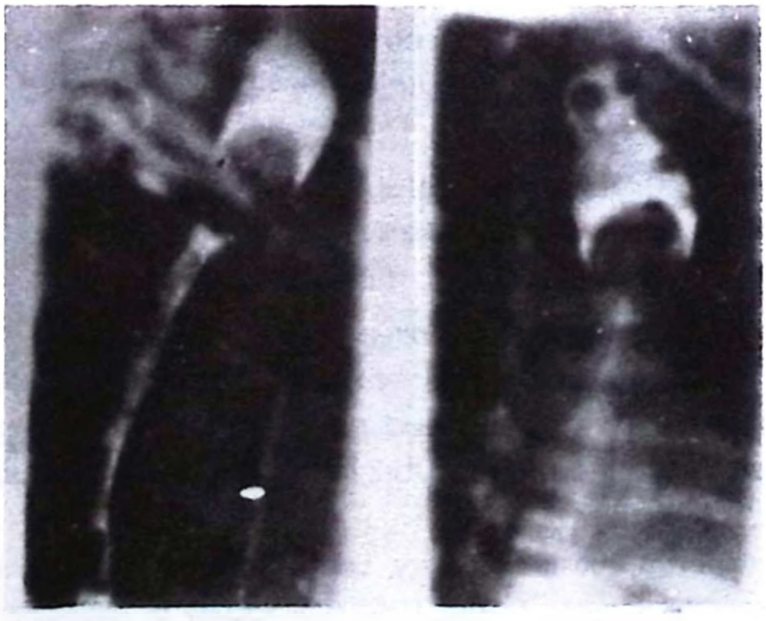

Fig. 2: Barium esophagram shows filling defect at the level of the aortic constriction.

bean, was removed from the level of aortic constriction (Fig. 3). The post endoscopic course was uneventful.

Upon questioning his parents again, it was learned that since the infant's birth, his four-year-old sister had displayed an extraordinary affection for him, and as it apparently seems, his parents allowed them to play together alone using even small objects such as ordinary beans, as playthings.

Fig. 3: Removed foreign body (ordinary bean).

Discussion

The majority of swallowed foreign bodies, especially if round and smooth, reach the stomachs of young children without difficulty[7]. There are, however, several sites for the lodgment of foreign bodies in the esophagus at the levels of cricopharyngeal, aortic, and left main bronchus constrictions and the inferior esophageal sphincter[8]. Since the posterior tracheal wall is membranous in origin, it can easily be compressed by an esophageal foreign body, thus causing respiratory distress which becomes apparent when the child is placed in the supine position[9]. Respiratory symptoms can also occur as a result of infections of the surrounding tissues or from spillover of secretions into the trachea, resulting finally in tracheobronchitis or pneumonia..

Whenever an infant has unexplained dysphagia, dyspnea, cyanosis or wheezing, a complete x-ray, examination of the neck and chest, lateral neck x-ray, inspiratory and expiratory chest x-rays in both posterior-anterior and lateral positions, and the use of contrast medium, when indicated, has been recommended[1].

It has been stated that foreign bodies in the air and food pasages have been responsible for more accidental deaths at home of children under six years of age than any other single cause[7]. In cases of unexplained dysphagia, dyspnea, cyanosis or wheezing, tracheo-esophageal foreign bodies should be suspected, taking into account the fact that some of these objects are non-opaque.

In the two to three year-old age-group, children often put round objects such as beans into their mouths and easily swallow them without any difficulty. Some children even put objects in their nostrils which are extracted by parents on discovery. However, in the case presented, the self-introduction of the bean was impossible. Although there was no question that the parents had loved and cared for their children, it has to be conceded that their lower educational level provided the setting for the action of their daughter and the subsequent outcome.

Summary

A foreign body in the esophagus of a four-day-old male baby is presented. Since self-introduction of a foreign body is impossible at this age, the accident was considered to be the result of a form of neglect.

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