OESOPHAGEAL FOOD BOLUS IMPACTION

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ABSTRACT

Impaction of food usually occurs in patients having obstructive lesions of the oesophagus. The food bolus impaction normally occurs in patients older than 60 years of age. Though food bolus impaction in the oesophagus is not uncommon, food bolus in the oesophagus causing complete obstruction resulting in total dysphagia is rare. This is a case report of a woman who had complete obstruction of the oesophagus following impaction by a piece of meat. The various treatment modalities available for such a condition are discussed.

Keywords : Dysphagia, bolus impaction, oesophagus.

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INTRODUCTION

Oesophageal disease and poor oral sensitivity due to dental prosthesis usually predispose elderly patients to food impaction. In patients older than 60 years of age, food boluses predominate (72%) among oesophageal foreign bodies (1). The authors report a case of food impaction which resulted in complete dysphagia and discuss the various modes of treatment available.

CASE REPORT

A 70 year old woman was referred to us by a private practitioner, with the symptom of inability to swallow even a sip of water for the past 2 days. The patient developed the symptom after having taken a normal meal of meat. There was no history of pain in the throat or of difficulty in swallowing prior to this episode. After further questioning, she admitted to having ingested caustic soda when she was 16 years old. Though she was admitted for a few days in the hospital at that time, she was managed conservatively. Since she did not have any difficulty in swwallowing, she did not seek any treatment subsequently.

On examination she was afebrile and there was no tenderness in the neck. Indirect laryngoscopy did not reveal any abnormality. X-rays of the neck showed a large radiolucent area with fluid level within it in the prevertebral space (Fig 1a & b).

Fig 1a.

X-ray of neck - lateral view showing fluid level

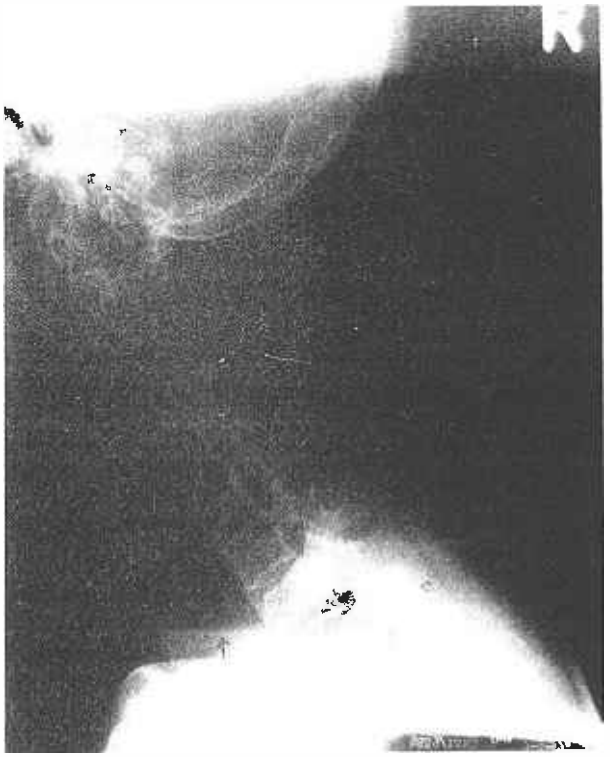

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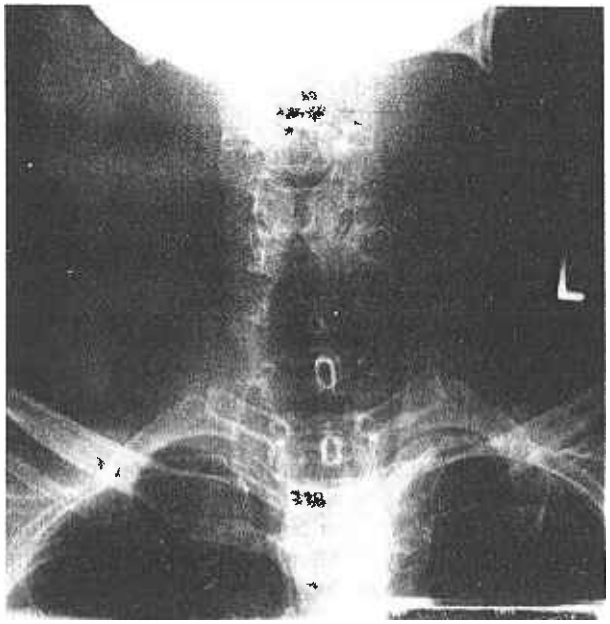
Fig 1b.

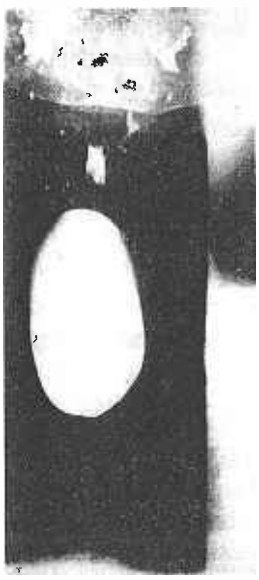
X-ray of neck – AP view showing a large radiolucent area



No foreign body was visualised. Barium swallow examination (Fig 2) showed this radiolucent area to be a grossly dilated oesophagus with complete obstruction at the level of the thoracic inlet.

Fig 2.

Barium swallow- showing grossly dilated oesophagus and complete obstruction



The patient was admitted and kept under observation. Six hours after admission the patient felt that the obstruction was partly relieved and was able to swallow liquids. Oesophagoscopy done later revealed a pin hole stricture in the oesophagus at 20 cm from the incisor teeth. There was no tumour seen at the site of stricture and the biopsy taken from that region was also negative for malignancy. Barium swallow examination done later (Fig 3a & b) confirmed the presence of a narrow stricture whereas the rest of the oesophagus was normal. Since her hospitalisation, her stricture has been dilated on several occasions. Dysphagia has improved significantly. She is now asymptomatic and is on regular follow up.

Fig 3a.

Barium swallow- showing narrow stricture

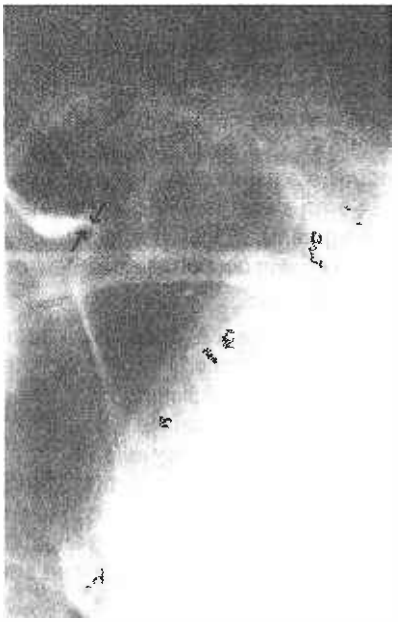


Fig 3b.

Barium swallow - showing stricture in the oesophagus

DISCUSSION

Food impaction rarely occurs in the normal oesophagus(2). Impaction of food in the oesophagus occurs in patients having obstructive lesions of the oesophagus. In this case, though the patient did not have any symptoms of oesophageal disease, she was found to have an oesophageal stricture. Many cases of food impaction resolve spontaneously with time. Rarely, it may persist for hours (as in our patient) or even days. Various treatment modalities have been tried in these cases.

Intravenous glucagon in doses of 0.5 mg to 2 mg have been used effectively in cases of food impaction in the distal oesophagus (2). Glucagon has the ability to decrease lower oesophageal sphincter pressure without any apparent effect on the muscles of the oesophagus. Glucagon will not be of use in cases with distal oesophageal rings or strictures that have little or no smooth muscle component. Patients with spasm of the lower oesophageal sphincter seem to respond well to glucagon. Trenker et al (2) reported success in 37% of their patients with oesophageal food impaction, by using intravenous glucagon. Ferrucci and Long (3) reported 45% success with glucagon. Though it is a relatively safe procedure, vomiting is one of the side effects of glucagon. So, in patients with food bolus containing sharp bony fragments, it may be risky to use glucagon because it can result in oesophageal rupture or aspiration into the air passages.

Carbonated beverages have also been used in oesophageal food impaction. The rationale of using carbonated beverages is to distend the oesophagus with carbon dioxide which then causes relaxation of the lower oesophageal sphincter thereby allowing the impacted bolus free passage into the stomach(4). Mohammed et al (4) claim 80% success by using carbonated beverages and they recommend this method as the first line of treatment in cases of impacted meat and other foreign bodies in the oesophagus.

Another method of treatment, in which the mode of action is the same, is the cocktail of tartaric acid and sodium bicarbonate. Rice et al (5) reported 100% success with this cocktail.

Topical proteolytic enzyme, papain, has been tried in this condition and is said to cause oesophageal perforation or mediastinitis in some cases (6).

Mechanical extraction of the impacted food bolus in the oesophagus using Foley's catheter can be tried, but sometimes it has been noted (7) to cause mucosal damage, perforation of the oesophagus and aspiration of the foreign body into tha air passage.

Traditionally, the oesophagoscope has been used to remove the impacted food bolus, but sometimes it can also cause mucosal damage or rarely perforation. Oesophagoscopy is more useful in cases where a stricture is suspected.

In our patient, we did not have to resort to any of these methods as she was spontaneously relieved of her dysphagia. With other patients one or more of the above methods may be attempted depending upon the level of impaction, pathology or type of foreign body.

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