

A nice meal turn dangerous: Steakhouse syndrome

Anand Kumar Balakrishna¹, Rosnelifaizur Ramely^{1,2}, AndeeDzulkarnain Zakaria^{1,2}, Mohd Nizam Md Hashim^{1,2}, Wan Zainira Wan Zain^{1,2}

From ¹Department of Surgery, School of Medical Sciences, Universiti Sains Malaysia Health Campus, Kubang Kerian, Kelantan, ²Hospital Universiti Sains Malaysia, Jalan Raja Perempuan Zainab II, Kubang Kerian, Kelantan, Malaysia

ABSTRACT

Food bolus impaction is one of the most common problems in our population. Most food impaction passes through gastrointestinal spontaneously with only 10–20% requiring intervention. In contrast to true foreign bodies, impacted food bolus in the esophagus is always symptomatic as a result of partial or complete obstruction. We reported a case of food bolus impaction in which the patient presented with odynophagia for 2 days. Prompt resuscitation and endoscopy revealed a food bolus at the distal esophageal. A tactical endoscopic approach is always the best approach for this kind of case.

Key words: Endoscopy, Food impaction, Steakhouse syndrome

Steakhouse syndrome is a condition in which food impaction of the esophagus occurs after eating a piece of food, especially a meat bolus, without adequate chewing. This food impaction is an acute event and is immediately recognized by the patient. Most food bolus impaction resolves without intervention, either by moving forward to the stomach or regurgitating the ingested content by the patient. When symptoms of obstruction persist or are accompanied by substantial chest discomfort, the patient seeks medical attention. It is important to differentiate impaction from choking. The patient with food bolus impaction does not have any interruption of breathing, they are able to talk and cough, whereas, a person who is truly choking is unable to do any of these things. Most of the impaction accompanied by some underlying pathology, be it mechanical or related to the functionality of the esophagus.

A previous perspective study says that 71% of the patient presented with food bolus impaction had symptoms of esophageal disease and around 60% had prior food bolus obstruction [1]. Other contributing factors could be poor dentation, ill-fitting dentures, or a predisposition to eat too quickly. It is important to discriminate a food bolus impaction from true foreign object ingestion. Therefore, radiographic imaging should be incorporated into investigation and management to make that distinction. More than 80–90% of the ingested true foreign body will pass spontaneously through the gastrointestinal tract without complication. However, in 10–20% of the cases, an endoscopic intervention is deemed necessary [2].


Another concern related to the food bolus is the bony component, as it has a high risk of scarring and injuring the esophagus. Again, radiographic imaging can be helpful in this regard. Here, we would like to discuss the case of a 44-year-old male patient who presented to us with a complaint of acute esophageal obstruction secondary to food impaction.

CASE REPORT

A 44-years-old man with no previous medical illness presented with the sensation of food being stuck in his esophagus. His symptoms started 2 days prior while he was having fried chicken for dinner. Numerous times, the patient had immediate vomiting after taking a meal and was not able to take solid food thereafter. He complained of odynophagia even with his saliva on the day of presentation. He denied any symptoms of dysphagia, food impaction, or any history of hematemesis, gastroesophageal reflux disease, and gastritis in the past.

In the emergency department, the patient found to be dehydrated and to have minimal tenderness at the epigastric area, but otherwise vitally stable with the following vital signs: Blood pressure of 157/60 mm Hg, heart rate of 110 beats/min, temperature of 37°C, and saturating 98% under room air. Evaluation of oral cavity showed that he has a few broken and loose teeth. This posed a challenge regarding the placement of a standard bite block before endoscopy. Moreover, accidental teeth ingestion could not be rule out as the patient claimed one of the teeth just fell off a few weeks ago.

Anteroposterior and lateral soft tissue neck X-ray was unremarkable. Based on his clinical presentation and radiological

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Correspondence to: Anand Kumar Balakrishna, Department of Surgery, Hospital Universiti Sains Malaysia, Jalan Raja Perempuan Zainab II, Kubang Kerian, 16150 Kota Bharu, Kelantan. E-mail: anandkumarbalakrishna87@gmail.com

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investigation, a diagnosis of esophageal obstruction by a food bolus was made. The otorhinolaryngology team was called on board to exclude the upper esophageal obstruction or injuries at the upper esophageal sphincter. The transnasal flexible scope was done by the team and noted no obvious upper airway obstruction or evidence of injuries. Proceeded with esophagogastroduodenoscopy (OGDS) and a smaller size bite block, a large food bolus was noted at the distal esophagus approximately 35 cm from the incisors teeth. The food bolus looks relatively soft, no obvious bony part visualizes, and saliva accumulated around it (Fig. 1). There was no obvious tear or lacerated wall noted around the food bolus. At the middle part of the esophagus, esophagitis Los Angeles (LA) grade 2 was found with minimal esophageal narrowing (Fig. 2).

A decision was made to push the food into the stomach. First, a scope was glided in between the food bolus and esophageal wall to create a space. Then, with the tip of the endoscope, gentle pressure was applied to the food bolus, carefully guiding it into the stomach. The push was successful. Further endoscopic evaluation of the stomach and duodenum done was largely unremarkable, but mild gastritis in the past at the pylorus was found. A rapid urease test was negative. No hiatus hernia was noted. The post-procedure course was uneventful and the patient was discharged home later that day.

DISCUSSION

Steakhouse syndrome is a condition in which a mass of food (called a bolus) causes esophageal acute obstruction due to improperly chewed meat. The incidence was approximately 6–14% and the most common episodic dysphagia in adults [3]. In most cases, the etiology cannot be exactly shown, it is seen more frequently in patients with motility disorder in the lower esophageal sphincter and in alcoholics. Medical history and endoscopic examination are the first to be done for diagnosis. The endoscopic removal of a foreign body after the diagnosis is the most effective treatment method [4].

Many previous studies revealed a variety of esophageal pathology. Benign esophageal stenosis caused by Schatzki ring or by peptic stricture is quite notable, followed by webs, extrinsic compression, surgical anastomosis, esophagitis, and motor disorders like achalasia. However, the most common obstruction is due to poorly masticated food [5]. Surprisingly, food bolus impaction is an uncommon presentation of esophageal carcinoma.

For the Steakhouse syndrome, typically, the patient complains of sudden onset of dysphagia after a meal. The symptoms later develop into odynophagia, chest pain, and at times sialorrhea. Odynophagia may occur as a result of esophageal distension and can be a sign of injuries such as a laceration or early perforation. Respiratory symptoms may develop as a result of large food bolus compressing the trachea and cause airway obstruction. Common respiratory symptoms are such as coughing and choking.

Endoscopic removal of upper gastrointestinal tract foreign body and food bolus impaction has been found to be efficacious

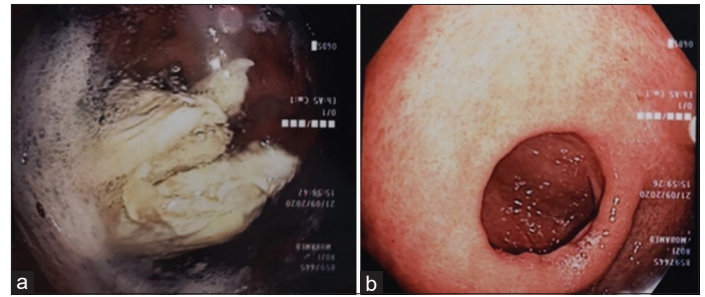


Figure 1: (a) Oesophagogastroduodenoscopy showing food bolus with pool of saliva around it; (b) mild antral gastritis with normal duodenum

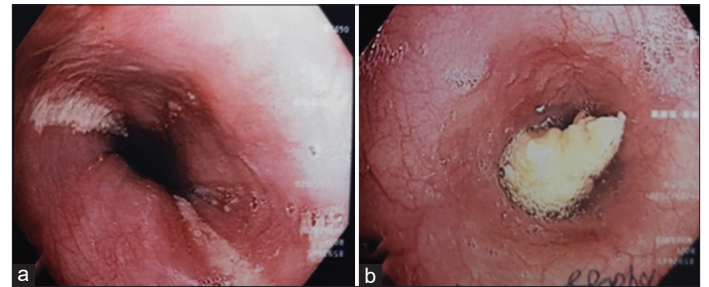


Figure 2: (a) Oesophagogastroduodenoscopy showing middle esophagus, LA grade 2 esophagitis; (b) food bolus at the distal esophagus

and safe. Furthermore, endoscopy can reveal any particular pathology leading to the impaction, and thus endoscopy is the preferred intervention as stated above. A few pharmacological therapies are also available for trial while awaiting endoscopy. For instance, glucagon, Buscopan, and benzodiazepine work to reduce esophageal motility and lower esophageal relaxation [6].

In a patient with no high-grade obstruction and not in distress, endoscopy can be postponed to a convenient time. Some prospective and retrospective studies done before showed that there are cases where spontaneous pass through food bolus is possible. They advocate a 24-h observation in a non-complicated obstruction. A short observational period following the admission of the patient with acute food bolus obstruction is reasonable [7]. However, in a patient who is in distress and cannot swallow his own saliva, urgent endoscopy is warranted [8]. Time from symptom's onset to presentation is the only predictor of early resolution from food impaction, while medical therapy is ineffective in relieving acute obstruction and may delay definitive therapy [9].

In this case, our patient presented after 2 days of dysphagia onset. Even though the symptoms were striking enough to indicate a food bolus impaction, precaution measures were taken to rule out the upper esophageal obstruction or injuries before OGDS. The patient was treated right away and he felt immediately better after pushing the food bolus into the stomach. Besides that, gastroscopy assessment shows mild esophagitis LA grade 2 esophagitis. This could be causing the scarring and probably narrowed the esophageal lumen [10]. In this uncomplicated food bolus impaction, the patient was not warranted for further investigation and discharged safely to home. A study showed that over a period of 5 years related to Steakhouse syndrome,

28 cases were identified to have food impaction. In all patients, the impacted food bolus was successfully removed without complication using flexible endoscopy. After adequate evaluation, pathologic findings were demonstrated in 90% of the cases and 60% were found to have a benign disease [11]. In another case report from Turkey, Cikman *et al.* described a patient presented with acute esophageal obstruction who turned out to have a meat bolus obstructing distal esophagus upon endoscopy. They advocate careful medical history and endoscopic examination are the first to be done for diagnosis and treatment of food impaction of the esophagus [4].

CONCLUSION

Flexible endoscopy is highly sensitive in detecting food boluses and has the advantage of delivering therapy in most cases. The goal is to clear the esophagus to prevent any further complications. Successful management of the food bolus impaction is influenced by many factors, including the diagnosis, timing to scope, and experience of the endoscopist.

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