Case Report

Cocktail Stick Injuries – the Dangers of Half a Stick

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Accepted 2 August 2005

INTRODUCTION

Cocktail sticks are widely recognised items used in both oral hygiene and in food preparation. We report two cases in which injuries were sustained by ingestion of one half of a cocktail stick. We wish to highlight the dangers associated with the use of half a cocktail stick, emphasising how easily accidental ingestion can occur.

CASE 1

A 68 year old lady presented to the Accident and Emergency department with a history of coughing and vomiting after possibly choking on half a cocktail stick at a party. She was unsure whether the stick had been swallowed or not. A chest X-ray was performed, and proved to be normal, and she was discharged.

Three days later she developed a productive cough with dyspnoea and right-sided pleuritic chest pain. She attended Accident and Emergency once more: she was noted to be in fast atrial fibrillation and was admitted to hospital with a presumptive diagnosis of right basal pneumonia. A chest X-ray was again performed and appeared normal (Figure 1). Antibiotic therapy was commenced, but her condition

Figure 1

Figure 2
did not improve. Five days after admission, another chest X-ray showed a right sided pleural effusion and pneumomediastinum suggestive of oesophageal perforation. A CT scan of the chest confirmed a distal oesophageal perforation with a right-sided empyema (Fig 2). At thoracotomy, a fragment of cocktail stick was discovered at the site of perforation. A T-tube was placed across the perforation to allow external drainage and the right lung was also decorticated. The post-operative course was slow but uneventful. The T-tube was removed after 14 days. A follow-up contrast study confirmed that the oesophageal perforation had sealed. The patient remained well 6 months after surgery.

CASE 2 A 61 year old man was referred with a 5 month history of lower abdominal pain and passage of blood and mucus per rectum. Digital rectal examination was normal. A barium enema was performed and showed a stenosing “apple core” lesion at the rectosigmoid junction typical of an adenocarcinoma (Fig 3). At laparotomy, the sigmoid colon was found to be inflamed and adherent to the caecum. The sigmoid was mobilised and one half of a cocktail stick was discovered to be penetrating through the colonic wall at the site of a diverticulum. A sigmoid colectomy was performed and the patient’s post-operative recovery was uneventful; histopathology confirmed the presence of an inflammatory mass associated with a localised perforation in an area of diverticular disease, with no evidence of dysplasia or malignancy. The patient had no recollection of ingesting the cocktail stick. He remains well 6 months after surgery.

**DISCUSSION**

The dangers of ingestion of these items have been described in the international literature before, with North American authors preferring the term “toothpick” over the British “cocktail stick”. We present the cases above to bring attention to the dangers posed by the use of the half-cocktail stick in the preparation of food. Injury from accidental cocktail stick ingestion has been described in every part of the gastrointestinal tract, including the anus, and sites of perforation may mimic gastrointestinal malignancy or inflammatory bowel disease. Cocktail sticks have also been associated with hepatic abscess formation and development of aortoenteric or duodeno-caval fistulae.

A number of risk factors for accidental ingestion of a cocktail stick have been identified: recent alcohol ingestion, wearing dentures, ingestion of hot or cold liquids and rapid ingestion of food. It seems likely that altered oral sensation or inattentiveness to the act of swallowing may allow accidental ingestion to occur unnoticed, and only 12% of patients who present with injuries remember swallowing them. In a review of the literature Li and Ender found that the maximum reported interval between the ingestion of a cocktail stick and presentation with related symptoms was fifteen years. All these factors mean that a cocktail stick injury may not be suspected in a patient who presents with symptoms some time after an unremembered episode of accidental ingestion. This difficulty in diagnosis is compounded by the inability of plain radiology to demonstrate the ingested cocktail stick, which is typically made of wood or plastic and so is radiolucent. Cocktail sticks may be sometimes detected on CT, small bowel series and ultrasound, but most cases of cocktail stick injuries are diagnosed at exploratory surgery, most commonly laparotomy (53%).

In light of the potentially serious complications of cocktail stick injuries and the fact that ingestion is most commonly un-noticed by the patient the most effective way of reducing the incidence of these injuries is primary prevention. While a complete cocktail stick is fairly difficult to ingest by accident, half a stick may occasionally be ingested unknowingly, with serious results.
We suggest that the use of the half-cocktail stick in food preparation should either be abandoned or the consumer alerted to its presence as a first step in the primary prevention of these injuries. In the absence of such measures, it seems likely that the accidentally ingested cocktail stick will continue to provide a rare surprise finding at operation.

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