CASE REPORT

Accidental hijab pin ingestion in Muslim women: an emerging endoscopic emergency?

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SUMMARY

Ingested foreign body is an infrequent indication for emergency endoscopy in the adult gastroenterology practice. We describe the clinical features and endoscopic management of the first four cases of accidental ingestion of hijab pins by Muslim women in our unit, all presenting within a 12-month period. The pins were all successfully retrieved without any complications. In this report, we review published guidelines and the current literature, as well as discussing the approach (conservative vs proactive endoscopic retrieval) and timing of endoscopic treatment. The Muslim community may need to be alerted to the potential health hazard of hijab pins.

BACKGROUND

Endoscopic foreign body retrieval occupies a small but significant place in the adult gastroenterology practice and is predominantly guided by experience and recommendations from the paediatric literature.^{1 2} Typical scenarios include deliberate or accidental ingestion of razor blades, batteries or coins in the setting of self-harm or among patients with learning difficulties, and migrated metal stents in patients with cancer. We describe our experience with the emergency retrieval of hijab pins accidentally ingested by four Muslim women who presented to our unit spanning a 12-month period.

CASE PRESENTATION

Over a 12-month period, four patients presented acutely to the emergency department within an hour of accidentally swallowing hijab pins. These pins are used to secure the hijab, a religious veil worn by Muslim women that covers the hair and neck. The patients were Muslim women in their 20s and 30s. They described habitually gripping the pin(s) between their teeth while tying up their hijab. All but one admitted to being distracted in conversation when the pins were accidentally swallowed. One of these patients ingested two pins simultaneously, while all others ingested a single pin. All were asymptomatic and had normal vital signs and clinical examination on arrival.

INVESTIGATIONS

Plain abdominal X-rays performed on admission localised the pins to the stomach. These were 2–3 cm in length, with a blunt rounded pinhead on one end, and a sharp end at the other.

TREATMENT

The on-call gastroenterologist was contacted on each occasion, and immediately carried out the emergency endoscopy; three of these procedures were performed out of hours and one within normal working hours. All the patients received intravenous midazolam (2–4 mg boluses), one received buscopan (20 mg) and another fentanyl (25 µg). In all but one case, the pins were burrowed within the thick rugal folds of the upper stomach, and in one patient, the pin was in the prepyloric segment of the gastric antrum (figure 1). No serious mucosal laceration was observed in the oesophagus or in the stomach. The pins were gripped by standard snare loops and tightened at the junction between the pinhead and the shaft of the pin and gently extubated. The tip of the snare catheter was placed away from the tip of the endoscope to permit direct visualisation at all times.

In this manoeuvre, the pin assumed a forward position in the oesophagus during extubation, with the pinhead in the cephalic orientation. The clinicians decided not to use the protective overtube because of the patients being calm and sedated, and the endoscopists being confident of the snare grip and visualisation. All the pins were retrieved uneventfully, with no patients reporting pharyngeal trauma or aspiration of the pins. Three patients were discharged immediately following recovery from the sedation, and another was discharged following overnight observation. One of these patients insisted on reusing the retrieved pin!

Figure 1 Endoscopic photograph showing a hijab pin perched in the folds of the gastric antrum.

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DISCUSSION

The cases constitute the first description of a cluster of accidental ingestion of hijab pins by Muslim women. They present several challenges to the on-call endoscopist, as there are limited data as to how urgently an endoscopic intervention is required, or indeed whether an endoscopy is mandatory in this setting. These questions prompted us to seek evidence-based guidance for the management of these patients.

In the era of a widely available 24/7 gastrointestinal endoscopy on-call service in most acute hospitals, endoscopists are familiar with risk-stratifying patients into those who can safely wait for an endoscopy the next day, and those who need an emergency out-of-hour procedure. The position is less clear for the endoscopic management of a patient presenting with an ingested foreign body. Recent guidelines from the American Society for Gastrointestinal Endoscopy (ASGE) graded the timing of endoscopy for ingested foreign bodies as emergent, urgent and non-urgent. Within the oesophagus, most impacted foreign bodies are likely to require emergency endoscopic retrieval.³ For foreign bodies that are not impacted in the oesophagus, the window of opportunity for non-surgical straightforward endoscopic retrieval exists only as long as the foreign body remains within the stomach.

Once the foreign body has entered the stomach, most of them will be passed out of the body in 4–6 days without incident, and this has been the basis of a conservative approach.⁴ This remains contentious and some advocate an attempt at endoscopic retrieval for all cases where the foreign body is within endoscopic reach. A few published observations of the spontaneous passage of sharp foreign bodies exist in adults.⁵ Case reports of harmful consequences of sharp foreign bodies abound; these include perforated appendicitis, transluminal migration into the peritoneum, liver abscess, as well as colonic and small bowel perforation.^{6–9} Because of the potential for a sharp foreign body to traverse the pylorus in the interval between the patient's emergency presentation and endoscopy, justifying a 'wait until the morning' approach may be problematic. In such a hypothetical situation, the trauma of a laparotomy for pre-emptive surgical retrieval or management of complication; or the delayed discharge due to serial radiographs and inpatient observation, would appear to render an emergency out-of-hour endoscopy appropriate in the first instance.

Historically, the use of a protective overtube is recommended for the endoscopic retrieval of sharp objects. In our patients, each of the endoscopists chose not to use the overtube and this was mainly due to concerns of the overtube causing pharyngeal trauma. They each felt confident that with close coordination between the endoscopist and the nursing assistant gripping the snare loop the pin could be safely removed.¹⁰ Newer and softer overtubes are becoming available that may reduce the risk of oesophageal trauma during insertion.

Although in each case the hijab pins were retrieved uneventfully, we believe that the Muslim community should be alerted to the potential health hazard of the habit of gripping a hijab pin with one's teeth when tying up their hijab.

Learning points

- ▶ There are conservative versus endoscopic and emergent versus non-urgent approaches in managing foreign body ingestion.
- ▶ Accidental ingestion of hijab pins is a rare but clinically important gastrointestinal presentation.
- ▶ Emergency endoscopic removal of ingested pins is indicated, given the risk of serious complications.
- ▶ Muslim women should be made aware of the potential hazards of gripping hijab pins between the teeth.

Contributors JG is the corresponding author responsible for the conception of the paper, the writing of the manuscript and the submission. RB and NP assisted in the preparation of the paper and in the image of the endoscopic photograph. All three authors treated the patients described in the paper on separate occasions.

Competing interests None.

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