IN BRIEF

- Explains how swallowed foreign bodies can have serious complications.
- Addresses the issue of when it is appropriate to refer for colonoscopy.

An unusual extraction; retrieval of a swallowed crown by appendicectomy

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We report the case of a patient who swallowed a crown and three weeks later presented with abdominal pain and fever. At operation his crown was found to be causing appendicitis. Foreign bodies have previously been reported as causing appendicitis but never a crown. We discuss the appropriateness of abdominal radiology in the management of such foreign bodies.

INTRODUCTION

Acute appendicitis remains the most common emergency surgical presentation requiring operative intervention. Foreign bodies within the resected appendix are uncommon; the most recent review of medical literature found 256 reported cases in the last 100 years and estimated the incidence at 1 in 20,000 appendicectomies.[1] It would appear that gravity has prevented them travelling up the ascending colon and they may eventually become impacted within the lumen of the appendix. The most common foreign bodies are pins, lead shot, seeds and bones. There are no reported incidences of an accidentally swallowed crown causing appendicitis. We report a case where this occurred.

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CASE REPORT

A 41-year-old, previously healthy man attended accident and emergency with a history of right iliac fossa pain for the last two days, with pyrexia and 'feeling hot and sweaty'. He had swallowed a porcelain post crown, three weeks previously while eating, and did not think that it had passed. On examination he was pyrexial and had signs of localised peritonism in the right iliac fossa. His white cell count was moderately elevated. Plain abdominal radiology was requested and the crown was visible (Fig. 1). The likely diagnosis was thought to be appendicitis but a perforation secondary to the crown was considered. He was taken to theatre soon afterwards, the appendix was removed and a foreign body was felt within the lumen. The pathologist opened this specimen and a photograph was taken which showed the crown within the inflamed lumen (Fig. 2). The patient went home 48 hours later after an uneventful recovery.

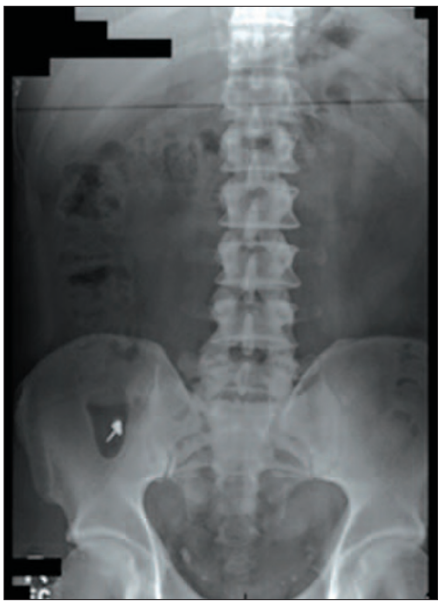

Fig. 1 Plain abdominal film

DISCUSSION

In general dental practice a swallowed foreign body is the second most common medical emergency not associated with general anaesthetic and 1.5-2.0 episodes will occur in a 40 year working life. Inhaled foreign bodies occur less frequently (0.06 episodes per 40 years), however, these figures emphasise the importance of airway protection during dental treatment.[2]

A patient that has swallowed a crown would not be expected to require any intervention. The complication we would perhaps see would be a small bowel

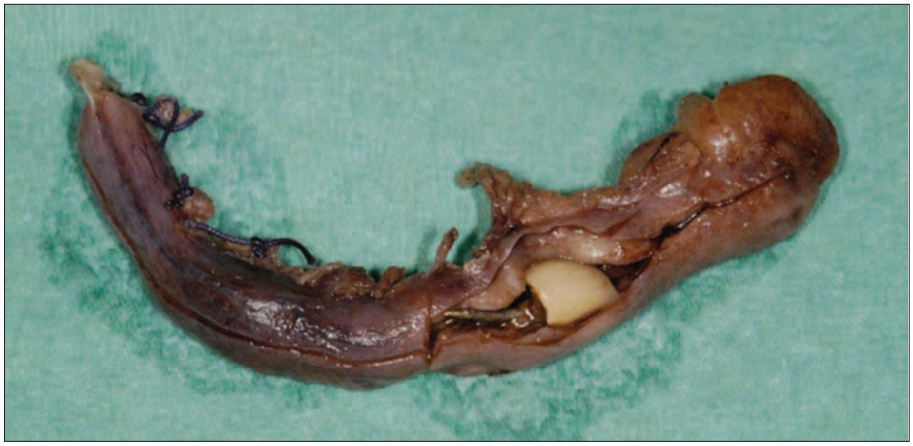

Fig. 2 Crown within opened appendix

perforation due to the post, however, this in itself would be unusual and the most likely sites would be the duodenum or terminal ileum/appendix.

Assessment of a swallowed foreign body in the accident and emergency department will take the form of plain radiology from the nasopharynx to the bottom of the pelvis and intervention is unlikely to be required if the foreign body has passed through the oesophagus into a sub-diaphragmatic position.[3] It has previously been suggested in the literature that plain abdominal radiography is carried out at 12-48 hours following ingestion[4] and a follow up X-ray performed three days later. Weekly follow up X-rays identify objects that are not passing through the gut[5] and those remaining in the right iliac fossa should be considered for colonoscopic removal[1] as this is the site with the highest likelihood of causing perforation or appendicitis. Ingested foreign bodies that get through the oesophagus will pass in the stool in 99% of cases[6] so this aggressive radiological assessment is probably not warranted. We would recommend that follow up after initial radiology is only required in symptomatic patients.

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