CASE REPORT

Management of a patient with autism following ingestion of a foreign body

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Accepted 6 June 2014

SUMMARY

Patients with autism often find admission to hospital an anxious time. Awareness of the condition, a speedy diagnosis and flexibility in adapting treatment plans will facilitate early discharge and return to their familiar environment. We describe a patient with severe autism who presented with an acute abdomen secondary to ingestion of a foreign body which required laparotomy. Communication directly to medical staff was greatly limited due to severe autism and close liaison with family members was essential in interpreting scant clinical signs. At the time of surgery a rubber bottle teat was found causing transection of small bowel due to erosion of the foreign body. The postoperative course was fraught with challenges and ensuring side room nursing care with family members present throughout his admission minimised postoperative stress and confusion. We recommend awareness of management strategies for patients with autism to ensure rapid recovery and early discharge home.

BACKGROUND

The management of a patient with autism can be challenging. For those with an autistic spectrum disorder (ASD) hospitalisation can be an overwhelming sensory and cognitive experience. A greater awareness of the unique challenges presented by a patient with an ASD will allow health-care professionals to tailor treatments towards the patient in an effort to reduce patient and family anxiety, maximise treatment outcomes and ensure a speedy discharge to their familiar environment. In this case we highlight areas of difficulty in the management of a patient with autism who presented with an acute abdomen to our surgical unit and describe strategies used to ensure optimisation of his medical care.

CASE PRESENTATION

A 22-year-old male patient with severe autism presented to the emergency department with a 4-day history of looking unwell, lethargy and abdominal discomfort. As a base line the patient had no communication and a history was taken from his parents, his main carers. On inspection he appeared comfortable at rest and was holding tightly to a rubber bottle teat which he had used as a comforter from childhood. On examination he was tender on the right side of his abdomen with guarding however he made no sounds of distress or discomfort and there were no visual cues from his face that suggested him to be in pain. The parents emphasised that normally examination would not

be possible as he would not be able to sit for any prolonged length of time and that given his state of lethargy it raised concerns in their minds that he was unwell.

INVESTIGATIONS

Blood investigations showed a full blood count, urea and electrolytes and liver function tests within normal limits. C reactive protein (CRP) was elevated at 300 mg/L. Urinalysis was clear. Erect chest X-ray showed no evidence of free air and plain abdominal X-ray showed no significant obstruction or evidence of foreign body ingestion (figures 1 and 2).

DIFFERENTIAL DIAGNOSIS

Given his abdominal findings and age it was felt that appendicitis was high on the list of differentials. However in the absence of an accurate clinical history and with abdominal tenderness and guarding over a broad area a perforated duodenal ulcer could not be excluded. Examining clinicians were also aware of the increased association of pica in patients with learning difficulties and ingestion of a foreign body could not be excluded.

TREATMENT

Owing to the limitations of a clinical history and examination the patient proceeded to CT scan which showed a complete bowel obstruction secondary to foreign body. Coronal sectioning on CT demonstrated the foreign body most likely to represent a rubber teat from a bottle. There was evidence of air in the small bowel wall but no evidence of free air to suggest a perforation (figure 3). These findings were supported by the family who stated that the patient handled the rubber teats as a means of comfort and that a large number of them were kept at home for this purpose. The patient had never made attempts to put them in his mouth or swallow them in the past.

On the basis that the patient had abdominal tenderness, an elevated CRP and complete obstruction it was felt that surgical intervention rather than conservative management was most appropriate due to potential risk of foreign body erosion into the bowel wall. A laparotomy was performed through a small midline incision and the small bowel was found to have transected, due to the erosion of the rubber teat, with minimal contamination due to omental wrapping. The foreign body was removed and a segmental resection performed with primary anastomosis. Abdominal peritoneal lavage was performed prior to wound closure.

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To cite: McCain S, Tan S, Mark D. *BMJ Case Rep* Published online: [please include Day Month Year] doi:10.1136/bcr-2014-204185

Figure 1 Chest X-ray showing no evidence of free air.

OUTCOME AND FOLLOW-UP

The patient was discharged from recovery to a side room at ward level. Unfortunately he developed a postoperative ileus which was difficult to manage as a result of his autism. Nasogastric tubing was poorly tolerated as was catheterisation which was needed to monitor a poor urinary output. Intravenous access became a precious source of administering fluids and antibiotics and had to be closely guarded by relatives and nurses due to the pulling of such lines by the patient. Fortunately the patient recovered fully and progressed to oral fluids and antibiotics on his third postoperative day following full resolution of his ileus. Throughout his admission the patient was nursed in a side room and had a member of his family with him at all times in an effort to minimise his anxiety and confusion.

DISCUSSION

In patients with an ASD the diagnosis and management of an acute abdomen may be challenging. Within the spectrum of

Figure 2 Plain abdominal X-ray.

Figure 3 Coronal section of CT scan showing rubber teat as cause for small bowel obstruction.

autism communication between the clinician and the patient may be limited, as our case demonstrates. It may not be possible to glean information from the patient or relatives that leads to a firm diagnosis of the presenting report. This case highlights the importance of recognising limitations in a clinical history in patients with autism and the importance of confirming a diagnosis quickly by other investigative modalities.

Foreign body ingestion is most commonly seen in the paediatric population by accidental means or in association with pica. There are however reports of intentional ingestion of foreign bodies in adults with mental health issues such as severe learning difficulties.^{1 2} Most foreign bodies pass through the gastrointestinal tract safely and foreign body intestinal perforation accounts for only 1% of all intestinal perforations.³ Perforation has a higher incidence following the ingestion of batteries and sharp objects such as bones and needles.⁴ This case is unusual in that a soft rubber teat caused erosion of the small bowel 80 cm distal to the duodenojejunal flexure. Several studies have shown perforation to be most common in the sigmoid colon followed by the rectum and distal ileum.^{3 5}

Patient's perspective

- ▶ The mother and father of the patient presented in this case stated the following when asked about the care that their son had received.
- ▶ We were really worried when we realised that he needed to go for an operation. He has needed to wear a cast on his leg to protect stitches in the past and we were worried that he would be difficult to look after. When he has needed medical treatment before we felt that our views and ideas on how to treat him were not given much thought to but the medical and nursing staff were really helpful this time. They asked for our input about ways to look after him, things that he liked and explained to us about things that he needed like lines and tubes. We felt like part of the team and that our thoughts and ideas were welcomed.

Learning points

- ▶ Patients with autism often find admission to hospital an anxious time. Awareness of the condition, a speedy diagnosis and flexibility in adapting treatment plans will facilitate early discharge and return to their familiar environment.
- ▶ It is important to include ingestion of foreign body as a differential diagnosis for surgical presentations in patients with autism or psychiatric illnesses.
- ▶ Early advanced imaging techniques such as CT are vital when there is diagnostic uncertainty in order to optimise management.
- ▶ Ensuring an appropriate environment is in place postoperatively is important. Using a quiet side room and allowing main carers to be present around the clock can help greatly to limit anxiety.
- ▶ A normal chest and abdominal X-ray does not rule out perforation.

In a study of 33 patients with intestinal foreign body perforation the diagnosis was made unexpectedly at the time of surgery in 30 cases as no history was given and imaging had not been performed. The most common preoperative diagnosis was appendicitis and diverticulitis.³ By confirming diagnosis, prior to surgical intervention, optimisation of the surgical approach was achieved and a midline incision made, rather than an extended gridiron approach (as used for appendicectomy). A confirmatory diagnosis on CT also negates the need for a negative laparotomy or appendicectomy in a population of patients who would be best suited to a conservative management strategy if appropriate.

For patients with autism, hospitalisation can be an overwhelming sensory and cognitive experience.⁶ It is therefore of

paramount importance to tailor treatments for the patient in an effort to reduce patient and family anxiety, maximise treatment outcomes and ensure a speedy discharge to their familiar environment.^{6,7}

At an early stage our patient was highlighted to the bed manager as a vulnerable adult appropriate for side room nursing care. In order to minimise disruption and anxiety to the patient and family close communication and involvement of family members by healthcare professionals ensured the success of many treatments such as intravenous access and nasogastric aspiration. Despite the inevitable challenges posed by patients with autism this case demonstrates that adapting care to meet the patient's needs, involving main carers in the patient's treatment and obtaining an early diagnosis will ensure a speedy recovery and discharge with minimal anxiety to the patient.

Competing interests None.

Patient consent Obtained.

Provenance and peer review Not commissioned; externally peer reviewed.

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