Royal Australasian College of Surgeons

ANZASM Case of the Month

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(case selected by the ANZASM committee for your information)

Lost opportunities when repairing a hernia failed to correct a small bowel obstruction

General Surgery

CASE SUMMARY

A man in his late 80s presented to his local regional hospital with acute lower abdominal pain. He was in generally good health. It was thought initially that his symptoms were due to urinary retention; however, catheterisation provided no relief.

Further investigation via a computed tomography (CT) scan revealed a small bowel obstruction secondary to an incarcerated femoral hernia. The patient was assessed and taken to theatre by the on-call surgeon. A low, open approach was made to the femoral hernia. The operation note describes the bowel within the hernial sac to be bruised but viable. The small bowel loop was reduced, the peritoneal sac closed and the femoral canal reconstituted.

On postoperative day 1 the patient was haemodynamically stable, but there was significant abdominal distension and the development of acute disorientation. Little had changed by postoperative day 4. The abdominal distension had worsened with the additional issue of uncontrolled vomiting. A repeat CT scan revealed a persistent small bowel obstruction with a transition point just above the recently repaired femoral canal. Administration of diatrizoate meglumine–diatrizoate sodium (Gastrografin) produced a significant first bowel action and it was hoped that a resolution was in sight. A general physician was providing support and medical care throughout the postoperative period.

By postoperative day 6, persistent vomiting had led to the placement of a nasogastric tube and the patient was receiving full intravenous (IV) fluid support. The notes indicate that the working diagnosis was postoperative ileus, with the possibility of a mechanical obstruction considered. Conservative therapy continued.

On postoperative day 15, another CT scan revealed a persistent small bowel obstruction with an unchanged transition point, again with no evidence of a recurrent hernia. At this time, the patient was referred to a different on-call surgeon. Operative intervention was recommended. Induction of anaesthesia was complicated by a significant episode of gastric aspiration. An initial laparoscopy revealed a peritoneal band causing a high-grade small bowel obstruction just above the femoral canal. The procedure was converted to an open procedure after an inadvertent enterotomy. Subsequently, a small bowel resection, anastomosis and washout were performed.

By the end of the procedure the patient was critically unwell, requiring ventilatory and inotrope support. The hospital had no intensive care unit (ICU) facilities, so plans for transfer to a

metropolitan hospital commenced. However, rapid deterioration continued and with the support of the family a decision was made to withdraw active care. The patient died 5 hours after the operation.

DISCUSSION

The ANZASM case assessor identified 3 clinical management issues (CMIs) for this case.

There was the adverse event of gastric content aspiration at the start of the second surgical procedure. A non-specialist anaesthetist induced anaesthesia for this procedure. It may have been prudent to have transferred the patient—still relatively stable at that point—to a tertiary centre before the second surgery. It was also highly predictable that postoperative ICU care would be required.

There was an area of concern. In an acute bowel obstruction arising from a femoral hernia there is a component of constriction from the borders of the femoral canal, as well as a constricting peritoneal band in many cases. Both issues must be corrected at surgery to resolve the obstruction. A low operative approach to an obstructing femoral hernia makes access to this peritoneal band difficult. A high pre-peritoneal approach allows the peritoneal sac to be delivered and addressed more easily—likely a better choice in this setting. It appears in this case that the point of small bowel obstruction was reduced en bloc and never dealt with at the first surgery.

Finally, there was an area of consideration. This was the delay in surgical intervention for more than 2 weeks in a patient with clear clinical and radiological evidence of a mechanical bowel obstruction that had never been corrected.

Sadly, the assessor commented that even a man approaching 90 years of age should have expected to make a full and straightforward recovery from this clinical situation.

CLINICAL LESSONS

If a patient deviates from the expected postoperative course, all possible scenarios and potential complications must be actively entertained and excluded.