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ANZASM Case of the Month

December 2019 Edition

This case has been selected by the ANZASM Committee for your information.

Multiple avoidable failures of care result in preventable death

Case Summary:

An elderly, but very fit, patient was referred to a well-equipped major hospital with lower abdominal tenderness, a mass and was septic. A computed tomography (CT) scan showed a large 10cm mass with air. This abutted the caecum, but without overt caecal pathology. Almost 8 months earlier, the patient had been admitted to the same hospital with acute uncomplicated diverticulitis and, 1 month earlier, to a nearby teaching hospital with another episode associated with a probable contained perforation. The patient settled on conservative treatment and was discharged with oral antibiotics.

In the admission to the major hospital, the patient was under surgeon A, but there was no record in the notes of a personal review by that surgeon. The abscess was drained percutaneously the following day. Four days later, the CT was repeated because the c-reactive protein (CRP) was rising (there was no comment in the notes). Although the collection was smaller, the drain was displaced outside the abscess. The patient was reviewed by surgeon B (a colorectal surgeon), but the reason for this additional review was not stated in the notes. Surgery appears to have been discussed. The drain was re-positioned the next day.

After this, the CRP and white blood cell (WBC) count remained elevated. On day 11, the notes record, for the first time, the attendance of surgeon A. All previous entries named two or three attending doctors, but surgeon A was not named. A further CT scan was arranged the next day. It showed the collection remained unchanged, but the re-positioned drain was also outside the cavity. This cavity was clearly related to the sigmoid colon that appeared abnormal. There was new free gas in the upper abdomen. Later that day, surgeon C undertook a right hemicolectomy with primary anastomosis.

Although the patient clinically improved, the WBC count and CRP remained elevated. Ten days after the right hemicolectomy, a further CT scan was undertaken and showed sigmoid diverticulitis with an associated gas collection with a track to the sigmoid colon. The overnight surgical team suggested this might need drainage and planned to discuss with surgeon C in the morning. The patient was seen

by surgeon D (another experienced colorectal surgeon) who noted a diverticular related pelvic abscess. The next day, 13 days after the right hemicolectomy and 25 days after admission, the patient deteriorated, and surgeon D undertook an emergency Hartmann's resection. There was a large pelvic abscess.

The patient was admitted to the intensive care unit and then to the ward. Over the next 17 days, the patient remained clinically static, but with a persistently high CRP and WBC count. The notes recorded the names of the junior attending doctors reviewing the patient, but the consultant's name was rarely noted. On day 17, after the Hartmann's resection, the patient became overtly septic and a CT scan the next day revealed a large pelvic abscess. The patient aspirated the next day and died 48 hours later, some 46 days after initial admission.

Clinical Lessons:

There were several areas of management that fell well short of the care expected of a major hospital which has the necessary facilities to manage this common general surgical presentation (acute diverticulitis with an associated abscess).

The issues that need to be reviewed are:

- At the time of admission, this very elderly patient was septic, and the key requirement was for source control. This was only achieved by the Hartmann's resection performed 25 days after admission. Between admission and the Hartmann's resection, there were two failed attempts at percutaneous drainage, as demonstrated by the persistently very high CRP, WBC count and unresolved collection, and then a right hemicolectomy when several preoperative CT scans showed that the sigmoid colon was the cause of the problem. This very prolonged delay to achieve source control was avoidable and so fundamental to care that it must be considered an adverse event.
- The percutaneous radiologically placed drain became misplaced twice. This drain was the source control and it is concerning that this happened twice. Did this poor placement of the drain or poor care of the drain occur on the ward? This is at least an area of concern, and that it occurred twice makes it a possibility of an adverse event.
- Surgeon C undertook a right hemicolectomy and left the sigmoid colon in-situ despite several preoperative CT scans reporting acute sigmoid diverticulitis with an associated abscess. Surgeon D (the reporting surgeon) stated that the CT scans had been discussed at an earlier departmental clinical-radiological meeting and the sigmoid perforation/fistula noted. It is difficult to understand how a right hemicolectomy was performed. It was clearly the 'wrong operation' and must be considered avoidable and an adverse event.
- From the notes, there appears to have been minimal direct consultant surgeon's input/supervision. The patient was admitted under surgeon A and although the junior attending doctors documented two, and sometimes three names when they made their ward rounds entries, there was no record of a surgeon's review for 11 days. Later notes also named the General Surgical team reviewing the patient, but only on a couple of occasions was the surgical consultant named. An assessment can only be made on what is written in the notes. It seems unlikely that the consultant would not have been recorded if present, so if present, the hospital needs to educate its staff as to the importance of proper documentation. If the surgeon was not present, the lack of direct consultant review of an elderly, septic patient was significant and would be avoidable and an adverse event.
- From the information available (e.g. persistently elevated inflammatory markers and WBC), the patient remained overtly septic after both the right hemicolectomy and the Hartmann's resection. There is no evidence of any surgical discussion that recognised this, nor of the merits/value or otherwise of a re-laparotomy and wash out. This would likely have been of great value and the failure to consider this is an area

of concern.

Although elderly, this patient had very few comorbidities and despite a failure to control the sepsis and two major emergency operations, the patient survived almost 46 days. Had the sepsis been promptly controlled, it is very likely the patient would have survived. This should be considered a preventable death secondary to a number of adverse events.

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