

## Laparoscopic appendectomy for perforated appendicitis with peritonitis

Towfigh et al. [2] make a strong argument for using laparoscopic appendectomy to manage perforated appendicitis. A number of these cases progress to peritonitis. This subgroup was not specifically mentioned in their review. A localized perforation is relatively easy to manage laparoscopically because the local area of perforation can be quickly washed out and the appendix removed.

However, when the appendix has perforated and there is associated widespread peritonitis with pelvic, gutter, subphrenic, and interloop abscesses, open management usually involves a large midline incision, a stay in the intensive care unit, respiratory failure requiring ventilation, cardiac failure requiring management, recurrent abscess formation requiring percutaneous drainage or reoperation (planned or unplanned), and significant associated mortality in those who experience multiorgan failure of 20% or more.

I have now treated four patients with perforated appendicitis and associated peritonitis using laparoscopic washout with saline and Jackson-Pratt drainage, followed by intravenous antibiotics for 10 days. All the patients had a mild degree of fluid retention secondary to cardiac failure and short-term ventilator dependency of up to 36 h. One patient was reexplored after his postoperative computed tomography (CT) scan indicated a recurrent pelvic abscess (however, instead of an abscess, only a small amount of clear fluid was found between small bowel loops in the pelvis). This patient refused to undergo an interval appendectomy, but the

other three patients underwent subsequent laparoscopic appendectomy arranged after an interval of 5 or 6 weeks, when they appeared to be completely recovered from their peritonitis [1].

A reduction in the length of hospital stay after laparoscopic appendectomy for perforated appendicitis is one thing, but can we go further? In cases of peritonitis secondary to perforated appendicitis, I now preferentially treat these very ill patients with laparoscopic washout, continually considering the pernicious effects of peritonitis. Should we go so far as to suggest that consideration should be given to the abandonment of open appendectomy for perforation with peritonitis?

### References

1. Hakimi AA, White NB, Hodgson WJB (2005) Laparoscopic repair of intrabdominal abscesses in a septic patient. *Surg Rounds* 28: 123–127
2. Towfigh S, Chen F, Mason R, Kathkouda N, Chan L, Berne T (2006) Laparoscopic appendectomy significantly reduces length of stay for perforated appendicitis. *Surg Endosc* 20: 495–499

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