Objectives

Stump appendicitis (SA) is defined as the interval repeated inflammation of any residual appendiceal tissue following primary appendectomy. Incomplete removal of appendix leaves a stump that can cause recurrent appendicitis. We report a case of SA treated with laparoscopic completion appendectomy.

Methods

A 39-year-old female was referred to our emergency department with a 4-day history of upper and right lower quadrant abdominal pain (RLQ), raised inflammatory markers, leucocytosis, signs of local peritonism in the RLQ and no history of fever, nausea, dyspepsia or urinary symptoms. A CT scan (CTS) was performed showing thickening of the caecum wall and a suspect perforated appendicular stump with abscess formation. (Figure 1) 19 years prior, the patient had undergone an open appendectomy in India with an uneventful recovery. Details of the operative findings and histopathology were unavailable. A diagnostic laparoscopy found a perforated appendicular stump, 23mm in length, with abscess formation and local adhesions. (Figure 2) The stump was closed using 2 PDS 2-0 endoloop. (Figure 3) Histopathology confirmed suppurative appendicitis with perforation. The patient was discharged on postoperative day 6 with no complications.

Results

Heightened awareness in recognizing SA is fundamental to avoid serious complications. Anatomical factors leading to SA are a retrocecal, subserous or a duplicated appendix. SA occurs in open and laparoscopic appendectomy irrespective of how the appendiceal stump is closed. Neither inversion of the stump or simple ligation can prevent SA. Treatment is either open or laparoscopic completion appendectomy. An ileocolic resection may be necessary in case of significant inflammation around the ileocecal region.

Conclusion

SA is a rare complication with an incidence of 1 in 50,000 cases. Its diagnosis can be challenging and should be considered in cases of RLQ pain with a history of appendectomy. Treatment of choice is open or laparoscopic completion appendectomy. To minimize the risk of SA, the entire appendiceal structure must be removed. Therefore, when performing primary appendectomy, correct identification of the base of the appendix is mandatory and appendiceal stump length should be <= 3mm.