Evisceration of Appendix through the Drain Site: A Rare Case Report

Praveen Ravishankaran Jr. · A. Rajamani

Received: 26 October 2010 / Accepted: 28 March 2011 / Published online: 9 August 2011
© Association of Surgeons of India 2011

Abstract Placing a drain after surgery is a usual procedure in any emergency abdominal operation. The drain is removed as soon as its purpose of draining the intra-abdominal collection is served. Evisceration of intra-abdominal organs through the drain site is a rare occurrence. This case report is about a 12-year-old girl who was admitted with blunt trauma abdomen. After completion of emergency laparotomy a drain was placed in the right lower quadrant. When the drain was removed on the 6th postoperative day, the appendix eviscerated out of the drain site. The wound was extended a little and an appendectomy was done. This case is presented for its rarity as only two similar instances have been reported in literature so far.

Keywords Evisceration · Appendix

Case Report

A 12-year-old female patient was brought to the casualty with blunt trauma abdomen because of a road traffic accident. An emergency ultrasound was done, which showed the presence of moderate haemoperitoneum. An emergency CT scan was also taken, which revealed moderate haemoperitoneum and presence of free air in the abdominal cavity. The patient's vital parameters were recorded (BP—100/70 mm Hg, pulse rate—102 beats/min, serum lactate—8.9 mmol/L). The patient was stabilised and immediately taken for emergency laparotomy. On

opening up the abdomen, mesenteric tear of the small bowel mesentery was found to be present. The distal one-third of jejunum was gangrenous. The gangrenous portion of the small bowel was resected, and the two ends were anastomosed with each other. A thorough wash was given and a drain (32-size ICD tube) was placed in the right lower quadrant of the abdomen.

The patient responded well in the postoperative period. The decision to remove the drain was taken on the sixth postoperative day as the soakage was very minimal. The patient was shifted to the operation theatre, and the drain was removed under sterile precautions. To our surprise, the appendix eviscerated out of the drain site (Fig. 1). The appendix entered one of the orifices in the ICD tube drain and was pulled out as the ICD tube was removed. The wound was slightly extended and an appendectomy was done the usual way. The drain site was then closed. The patient recovered well and was discharged soon after.

Discussion

Evisceration of the appendix through the drain site is a rare occurrence, with only two cases published so far. Duraker et al. [1] published the first article on evisceration of the appendix through the drain site. Riordan et al. [2] also published a similar article. This is probably the third case to have been reported.

Evisceration is described as removal of organs as a result of the partial or complete separation of the operative incision which has been closed by several layers. A case of herniation of the appendix through the umbilical ring following transection of the umbilical cord for arterial catheterization was described by Biagtan et al. [3]. With the introduction of laparoscopy and thoracoscopy, herniation or

P. Ravishankaran Jr. (✉) · A. Rajamani
Coimbatore Medical College Hospital,
1, Chaturvedi nagar, Rayappa layout, Ganapathy,
Coimbatore 641006, India
e-mail: pravashu2624@gmail.com

Fig. 1 Eviscerated appendix

evisceration of intra-abdominal organs including the appendix has been one of the many complications of the same. Strangulation of the appendix caused by an incisional trocar site hernia following laparoscopy was reported by Menenakos et al. [4].

Our case is that of evisceration of the appendix through the drain site. The drain was used to drain the peritoneal cavity after laparotomy of a blunt trauma abdomen. When the drain was removed, we noted evisceration of the appendix through the drain site. It has been found that the

process of adhesion is more with the irritant red rubber tubes such as Malecot's catheter than with the inert PVC tubes. When removing the drain, one should cut the stitch anchoring the drain to the skin; following which the tube should be twisted 360°, thereby breaking the flimsy fibrinous adhesions between abdominal structures and the tube. It is only after twisting and when one finds a sudden give should the tube be pulled out. Or a simple way to avoid the evisceration of the appendix, however small the incidence maybe, is to place the drain on the left flank.

References

1. Duraker N, Büyükaşık K, Helvacioğlu Y (1997) Drain site evisceration of the appendix: report of a case. *Surg Today* 27 (7):651–652
2. O'Riordan DC, Horgan LF, Davidson BR (1995) Drain site herniation of appendix. *Br J Surg* 82(12):1628–1629
3. Biagtan J, Rosenfeld W, Salazar D, Velcek F (1980) Herniation of the appendix through the umbilical ring following umbilical artery catheterization. *J Pediatr Surg* 15(5):672–673
4. Menenakos C, Tsilimparis N, Guenther N, Braumann C (2009) Strangulated appendix within a trocar site incisional hernia following laparoscopic low anterior rectal resection. A case report. *Acta Chir Belg* 109(3):411–413