AN EXTRAORDINARY CASE OF THE SIGMOID COLON PROLAPSING THROUGH THE ANUS

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We presented the rare case of 71-year old female hospitalized and operated on urgently at the Department of General and Colorectal Surgery because of the intraperitoneal lesion of the rectum, which caused the prolapse of the sigmoid colon through the anus. The surgical management of rectal injuries was discussed.

Key words: rectal injury, colostomy, Hartmann procedure, abdomino-perineal resection, peritonitis

Rectal prolapse is a case frequently observed by general surgeons during emergency duty. The condition usually affects elderly female patients. In such situations the whole rectal wall with or without mucosa prolapses through the anus. Prolapsing mucosa resembles swollen, soft, bluish red mass or tumor, which often makes eventual identification difficult. Prolapsing rectal mucosa stays under continuously increasing oedema, and finally small, weeping ulcerations with blond or mucous develop on its surface.

CASE REPORT

A 71-year old woman (G. J, history number: 31272/09/10C20023) was admitted to the Department of General and Colorectal Surgery University of Medical Sciences in Poznań on January 3, 2010 because of a large intestine prolapsing through the anus. On first sight the surgeon, who admitted the patient at the Emergency Department had the impression that he deals with typical but significant rectal mucosal prolapse. After thorough examination it appeared to be a part of a large bowel with mesentery and epiploic appendices (most probably – sigmoid colon), without any signs of mucosal prolapse (fig.1). Due to the patient’s impaired mental status, obtaining an accurate history of present illness and information concerning a supposed mechanism explaining her condition was impossible. The lady was diagnosed with the severe form of Parkinson’s disease and dementia many years ago. Moreover since she was not accompanied by any

Fig. 1. The sigmoid colon prolapsing through the anus
An extraordinary case of the sigmoid colon prolapsing through the anus

family member it was not possible to get information for them.

Physical examination: abdomen soft, painless, without rebound tenderness, peristalsis was not audible, without distension. Temperature was normal. The prolapsed sigmoid colon, with slight swelling and ischemia, without any accessory signs of mucosal rectal prolapse. Gynecological examination did not reveal any vaginal injuries. After inserting Foley catheter urine was clear. BP stable – 130/70 mm Hg. Laboratory tests: Hb – 7.1 mmol/l, RBC – 4.07 T/l, WBC – 18.7 G/l, HCT – 0.35 l/l, electrolytes, BUN, creatinine, glucose, amylase, bilirubin, AST, ALT normal. Coagulation parameters within normal limits. Ultrasound did not reveal any fluid in the peritoneal cavity.

We decided to operate the patient urgently, suspecting large bowel injury of unknown origin. The abdominal cavity was opened via ventral midline incision. No signs of peritonitis were present, loops of small intestine unchanged, with normal peristalsis, inflammatory fluid or blood was not present in peritoneal cavity. Large bowel impacted with hard, fecal stones.

A 5 cm long tear was found on the anterior rectal wall in the intraperitoneal part, just above the peritoneal fold. The loop of elongated sigmoid colon invaginated to the rectum through this rupture, eventually prolapsing through the anus (fig. 2). Prolapsing intestine was diverted back from the outside, through the tear to the abdominal cavity and Hartmann procedure was performed: rectum was closed using linear stapler below the injury, elongated sigmoid colon, including the prolapsing part was excised and descending colon was brought out as a colostomy (fig. 3). One catheter was placed into the Douglas pouch. The operation finished with profuse saline peritoneal lavage. Postoperative period was uneventful, the catheter was removed on the second day of the operation, the wound healed by primary intention. Antibiotics (Cefuroxime, Metronidazol) have been administered for 5 days. Difficulties with bowel emptying through the colostomy were present in the postoperative period. The patient in good condition was discharged home on the 10th day after the operation.

During hospitalization, after consulting with patient’s family members and psychological counseling we suspected, that the most probable cause of rectal tear was self-injury. The patient, most of the day lying in bed, suffered from chronic constipation, which she treated not only with laxatives, but also with mechanical removal of fecal stones using different devices (spoons, sticks, wooden tool handles).

DISCUSSION

The decision for surgery was made as a result of strong suspicion of large bowel injury, since no other mechanism explaining sigmoid
colon prolapse could be imagined, although any examination did not confirm this hypothesis.

The mechanism of injury can be complex. In the United States the most common causes (except of wartime conditions) include gunshot wounds, seldom blunt abdominal and pelvic trauma or inserting devices to anus as a result of different erotic experiments and criminal acts (1, 2). Gunshot wounds are usually accompanied by the injuries of different organs in the pelvis and the abdominal cavity (urinary bladder, small bowel, pelvic fractures, large vessel injuries).

The need of urgent surgery because of the high risk of intraabdominal haemorrhage and contamination of peritoneal cavity is emphasized in the literature (2, 3)

The management of rectal injuries depends on a surgeon, general condition of a patient and extent of a lesion (2).

In many cases the primary wound closure is one of the possible techniques. A double-barreled colostomy should be brought out or Hartmann procedure performed with the excision of a damaged intestinal part, in case of any doubts concerning the suture tightness and strength. In some cases, especially an injury of the extraperitoneal part of the rectum is not a mandatory indication for suturing. A broad exploration of a lesion and attempts of enterorrhaphy or excision followed by suturing may bring more harm than good (4-9). In case mentioned above, drainage and constructing colostomy seems to be an appropriate management.

The closure of intestinal lesion without bringing out colostomy is rational, provided that we do not deal with the full-thickness injury (3). If the accessory damage of anal sphincters occurs (for example: gunshot wounds), an abdominoperineal resection is completely justified (2). In case of extraperitoneal injuries the crucial role of a presacral drainage is emphasized (1, 2).

One extraordinary aspect of this case report is that despite the significant (5 cm long) tear of the anterior rectal wall in its intraperitoneal part, no clinical or intraoperative signs of acute peritonitis were present. Most probably, the patient avoided this obvious, as it might have seemed, consequence of the intraperitoneal rectal rupture, because the proximal part of large bowel was completely impacted with fecal stones, without any liquid content and thanks to the fact, that the invagination of the elongated sigmoid colon through the tear and eventually to the anus due to intraabdominal pressure occurred pretty early. Invaginated sigmoid colon effectively occluded the rectal lesion, preventing the massive peritoneal contamination and as a result the development of peritonitis.

REFERENCES


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