



## Complicated incarcerated rectal prolapse: A surgical challenge in an elderly patient on antiplatelet agents

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### CASE REPORT

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Berney, CR. Complicated incarcerated rectal prolapse: A surgical challenge in an elderly patient on antiplatelet agents. AMJ 2010, 3, 10, 691-693. Doi 10.4066/AMJ.2010.428

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### Abstract

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Complete rectal prolapse is a distressing condition that represents full-thickness protrusion of the rectum through the anal sphincters mechanism. Incarceration and strangulation of an acute rectal prolapse is a rather unusual entity that represents a surgical emergency. We report a rare case of an 80-year-old woman on antiplatelet drug (Clopidogrel) presenting with acute bowel obstruction secondary to a strangulated loop of small bowel, entrapped in an irreducible bleeding rectal prolapse. She required emergency transperineal small bowel resection and proctosigmoidectomy with colo-anal anastomosis (Altemeier's procedure) followed up by laparoscopic division of adhesions, control of small bowel anastomosis and formation of a defunctioning loop colostomy. The patient had an uneventful post-operative recovery. Since closure of her colostomy five months later her bowel movements are back to normal and she denies any residual incontinence.

This case is a very unusual presentation of a complicated acute rectal prolapse dealt successfully with minimally invasive surgical approach that combined perineal bowel resections along with laparoscopy. Emergency procedures tend to have higher rates of post-operative complications as compared to elective ones. Furthermore, with the wider use of more efficient antiplatelet agents such as Clopidogrel, there is an increased risk of encountering early pre- or post-operative bleeding that might significantly worsen patients' outcome. Whenever possible, a planned more 'conservative' surgical approach should always be attempted in emergency situations as clearly demonstrated in our case.

#### Key Words

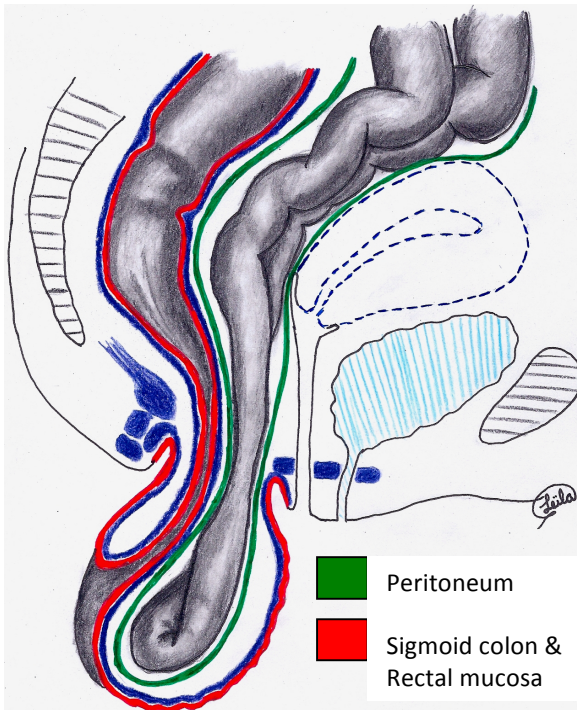
Rectal prolapse, incarceration, perineal recto-sigmoidectomy,

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#### Case

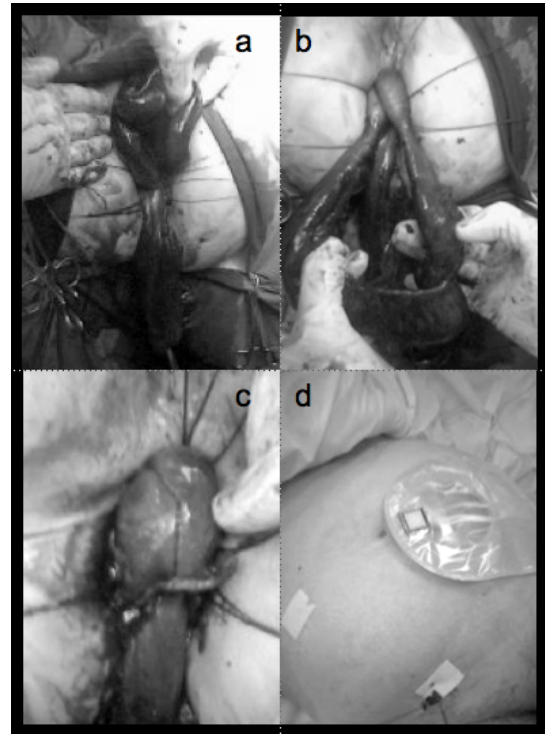
A 80-year old woman was admitted late at night in our Department of Emergency with an irreducible rectal prolapse of 24 hours duration. Her past medical history included stroke for which she is on Clopidogrel, chronic constipation, hypercholesterolaemia and osteoporosis. She had a previous hysterectomy via an infraumbilical midline laparotomy, as well as a laparoscopic cholecystectomy, umbilical hernia repair and haemorrhoidectomy. Her medication of Clopidogrel was stopped and initial attempts to manually reduce her prolapse failed. Decision was then made to repeat this manoeuvre earlier in the morning under general anaesthesia. Unfortunately, the patient developed bowel obstruction overnight secondary to the formation of a large haematoma in her prolapsed rectum and making further effort to reduce it impossible. An emergency surgical drainage of the haematoma completed by an Altemeier's perineal rectosigmoidectomy was undertaken. At operation, there was considerable congestion of the rectal mucosa and large quantities of altered blood had to be evacuated. Unexpectedly, a loop of ischaemic small bowel was identified after opening of the herniated peritoneum, which was not viable. These findings are illustrated in Figure 1.

**Figure 1.** Diagram representing a full-thickness rectal prolapse with an incarcerated loop of small bowel. The patient had a previous hysterectomy.



A trans-anal small bowel resection with primary functional end-to-end anastomosis was carried out, using two size 75mm linear GIA staplers (Figure 2). The small bowel was then reduced back into the abdominal cavity. The entire rectum and the distal sigmoid colon were then mobilised and 25 cm of bowel was resected perineally after careful ligation of the mesorectum and mesosigmoid vessels. The operation was completed by a hand-sewn colo-anal anastomosis using interrupted 2/0 Vicryl stitches. Finally, laparoscopic exploration with division of adhesions from previous surgery was made, showing a healthy small bowel anastomosis and no evidence of intraabdominal bleeding. A defunctioning loop sigmoid colostomy was performed and fashioned at the level of the left iliac fossa for protective and fixing purpose (Figure 2). Final histopathology report showed evidence of haemorrhagic infraction of the mucosa and submucosa of both bowel segments, along with marked congestion of the mesentery. There was no evidence of malignancy. The patient recovered very well and was discharged home on the sixth postoperative day. Five months later reversal of her colostomy was performed, following a satisfactory anal manometry and normal colonoscopy. No recurrence or incontinence has been observed during her follow-up period of over two years.

**Figure 2.** The patient is in a lithotomy position. a) A loop of ischaemic small bowel is held superiorly while the opened peritoneal sac is hanging down. b) Small bowel mesentery divided. Proximal afferent and efferent segments of small bowel well perfused. c) Stapled end-to-end anastomosis using two size 75mm linear GIA staplers. d) Loop sigmoid colostomy fashioned.



### Discussion

Incarcerated rectal prolapse is an uncommon condition mainly observed in elderly female patients. It can generally be reduced manually by gentle pressure either under mild sedation or general anaesthesia after failed initial conservative treatment. If the reduction is impossible, as in this case, a perineal proctosigmoidectomy or Altemeier's procedure is the only remaining treatment option. This can be achieved with low recurrence and mortality rates in elderly high-risk patients [1].

Clopidogrel is a platelet inhibitor that selectively blocks the binding of adenosine diphosphate (ADP) to its platelet receptor, thereby reducing the possibility of platelet adhesion and aggregation. Modification of the platelet ADP receptor is irreversible and consequently, platelets exposed to a single dose of Clopidogrel will be affected for the remainder of their lifespan, which is approximately 7 to 10 days [2]. Therefore, general consent among surgeons is to stop Clopidogrel for a minimum of one week prior to any elective abdominal surgery. Clopidogrel is today one of the most widely used antiplatelet agents for the secondary prevention of vascular ischaemic events, such as myocardial infarction or stroke like in this case. Patients on this medication tend to experience



significantly more post operative complications with a higher chance of returning to the operating room [3].

What makes this case of particular interest is the extremely rare combination of incarcerated acute rectal prolapse with small bowel strangulation caused by a large rectosigmoid haematoma. It makes no doubt that these clinical findings were related by her antiplatelet treatment and concerns are that similar types of presentation may become less uncommon with an ongoing aging population.

The choice to perform a defunctioning loop colostomy was motivated by several reasons including the age of the patient, the need to protect a "difficult" hand-sewn anastomosis from the faecal stream and vascular compromise [1,4], the fact that the patient had an associated small bowel resection and finally the increased risk of postoperative anastomotic bleeding. Ramanujam *et al* [1] published a 22% anastomotic leak rate requiring diverting colostomy in nine patients with incarcerated rectal prolapse. None of these elderly patients were on antiplatelet agents. With all these concerns in mind we opted for a laparoscopic approach, which offers significant better outcomes in terms of postoperative morbidity [5,6,7,8] and mortality [7,8] in comparison with open surgical procedures. The patient recovered satisfactorily.

In conclusion, we present a rare case of incarcerated and strangulated bleeding rectal prolapse complicated by small bowel ischaemia, in an elderly patient on clopidogrel and successfully treated with both, perineal and laparoscopic approach. This is to our knowledge the first report of such a case. It reinforces the fact that minimally invasive surgery should be offered to all patients who lack an absolute contraindication for laparoscopic approach, as stated by others [5].

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## References

1. Ramanujam PS, Venkatesh KS, Fietz MJ. Perineal excision of rectal procidentia in elderly high-risk patients. A ten-year experience. *Dis Colon Rectum* 1994; 37: 1027-1030.
2. [http://www.rxmed.com/b.main/b2.pharmaceutical/b2.1.monographs/CPS-%20Monographs/CPS-%20\(General%20Monographs-%20P\)/PLAVIX.html](http://www.rxmed.com/b.main/b2.pharmaceutical/b2.1.monographs/CPS-%20Monographs/CPS-%20(General%20Monographs-%20P)/PLAVIX.html)
3. Grujic D, Martin D. Perioperative clopidogrel is seven days enough? *Am Surg* 2009; 75: 909-913.
4. Voulimeneas I, Antonopoulos C, Alifierakis E, Ioannides P. Perineal rectosigmoidectomy for gangrenous rectal prolapse. *World J Gastroenterol* 2010; 16: 2689-2691.
5. Kennedy GD, Heise C, Rajamanickman V, Harms B, Foley EF. Laparoscopy decreases postoperative complication rates after abdominal colectomy: results from the national surgical quality improvement program. *Ann Surg* 2009; 249: 596-601.
6. Plocek MD, Geisler DP, Glennon EJ, Kondylis P, Reilly JC. Laparoscopic colorectal surgery in the complicated patient. *Am J Surg* 2005; 190: 882-885.

7. Law WL, Chu KW, Tung PHM. Laparoscopic colorectal resection: a safe option for elderly patients. *J Am Coll Surg*; 195: 768-773.

8. Scheidbach H, Ptok H, Schubert D, Kose D, Hugel O, Gasting I, Kockerling F, Lippert H. Palliative stoma creation: comparison of laparoscopic vs conventional procedures. *Langenbecks Arch Surg* 2009; 394: 371-374.

## PEER REVIEW

Not commissioned. Externally peer reviewed.

## CONFLICTS OF INTEREST

The author declares no conflict of interest.

## FUNDING

Nil