

Gangrenous Rectal Prolapse: An Exceptional Complication

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Received December 28, 2014; Revised January 03, 2015; Accepted January 06, 2015

Abstract Incarceration rarely complicates rectal prolapse. Even more rarely, it becomes gangrenous, necessitating emergency surgery. We describe an extremely rare case of gangrenous rectal prolapse. The patient underwent emergency perineal proctosigmoidectomy, the Altemeier operation. The postoperative course was quite uneventful with an excellent final result. The successful treatment of this patient illustrates the value of the Altemeier procedure in the difficult and unusual case scenario of bowel incarceration complicated with gangrene.

Keywords: Anorectal disease, Rectal prolapse, emergency, surgery

Cite This Article: Maghrebi H, Slama H, Ayadi S, Ben Safta Y, Makni A, Rebai W, Daghfous A, Bedioui H, Chebbi F, Ksantini R, Fteriche F, Ammous A, Jouini M, Kacem MJ, and Ben Safta.Z, "Gangrenous Rectal Prolapse: An Exceptional Complication." *American Journal of Medical Case Reports*, vol. 3, no. 1 (2015): 16-17. doi: 10.12691/ajmcr-3-1-6.

1. Introduction

Rectal prolapse (RP) is a disabling condition that has been reported since 1500 BC. It is relatively infrequent and occurs commonly in elderly women. It's defined by the protrusion of the rectum beyond the anus. Initially it is reducible spontaneously, later manually and is finally irreducible. In any stage it may be complicated by incarceration and strangulation. Gangrene remains an exceptional complication. We herein describe a rare case of strangulated RP in a 80 year old man.

2. Case Report

A 80-year-old man was referred to our surgical department for a strangulated large-sized rectal prolapse. He has a five year history of rectal bleeding and prolapsing anal mass at defecation. The mass required digital replacement after defecation. Rectal examination revealed a large-sized gangrenous rectal prolapse, 10 centimeters in diameter (Figure 1, Figure 2). We performed an emergency perineal sigmoid colon-rectal resection (Altemeier procedure) which consist on the resection of the protruded rectum 2 cm above the dentate line, and the mesentery of the sigmoid colon. The proximal sigmoid colon was hand-sewn anastomosed to the distal rectum. The postoperative course was uneventful. Patient was discharged 7 days postoperatively. Our patient has a poor functional result with respect to incontinence, urgency and soiling.



Figure 1. Gangrenous rectal prolapsed



Figure 2. Resected specimen

3. Discussion

There is still some debate about the exact pathophysiologic mechanism of RP. The prevailing theories are those of sliding herniation and progressive internal intussusception. The most usual form of RP is the chronic course of the disorder, incarcerated or strangulated RP is a rare scenario, where urgent surgical treatment becomes a priority [1].

A wide spectrum of operative procedures are available mainly for elective cases [2]. They are categorized as resective, fixative or a combination of both in order to achieve 2 goals: anatomical repositioning of the bowel and improvement of the function of the anorectal complex. The approach may be either abdominal or perineal.

Abdominal approaches are performed in patients fit enough to tolerate laparotomy as these seem to result in lower recurrence rates [3], perhaps with the exception of young men who cannot afford the increased risk of impotence and infertility from an abdominal operation [4]. In elective cases, rectopexy, using fixing material (mesh, sutures, clips), is the most popular operation with good results concerning recurrence [5,6]. In the modern era of surgery, the above operations can be accomplished laparoscopically with minimal morbidity and mortality [7].

When the prolapsed bowel is incarcerated or strangulated and cannot return to its anatomic position, an urgent surgical intervention is always indicated. The operation of choice is perineal proctosigmoidectomy with or without colostomy [8]. This procedure was first advocated by Miles [9] in 1933 and subsequently by Altemeier et al in 1971 [10]. Ramanujam et al [11] described 8 cases of acute incarcerated RP during a 9-year period, where perineal rectosigmoidectomy was performed. Two patients (25%) developed postoperative anastomotic leak with pelvic peritonitis requiring diverting colostomy.

Our patient, with acute presentation of incarcerated RP, underwent emergency perineal resection as the only alternative to remove the ischemic bowel. Goligher states that irreducibility with gangrene remains one of the few indications for rectosigmoidectomy (perineal) at the present time [12]. Unfortunately, the recurrence rate after the Altemeier operation is not negligible. There have been historical reports of a recurrence rate of up to 58% [13]. More recent studies refer to much lower rates (3%-16%), which are still high when compared to the abdominal approaches [14]. In addition, restoration of continence following the operation is also unpredictable as it may result in increased soiling and frequency of defecation [5]. Therefore, the addition of levatorplasty to perineal rectosigmoidectomy has been suggested in order to achieve better results [5]. In fact, the advantage of posterior levatorplasty is that it recreates the anorectal

angle, which seems to improve anal continence. This concomitant levatorplasty achieves not only a more significant improvement in continence but also a lower short-term recurrence rate than either the Delorme procedure or perineal rectosigmoidectomy alone

A transabdominal construction of a sigmoid loop colostomy was added aiming to protect the "difficult" hand sewn anastomosis from the fecal stream. In our case, we don't need a protective colostomy because the anastomosis was easy and safe.

In conclusion, a rare case of incarcerated and strangulated RP in a young adult is described in our case report. The patient's successful treatment with perineal proctosigmoidectomy highlights the value of the Altemeier procedure in this emergency situation.

References

- [1] Ramanujam PS, Venkatesh KS. Management of acute incarcerated rectal prolapse. *Dis Colon Rectum*. 1992; 35: 1154-1156.
- [2] Kuijpers HC. Treatment of complete rectal prolapse: to narrow, to wrap, to suspend, to fix, to encircle, to plicate or to resect? *World J Surg*. 1992; 16: 826-830.
- [3] Madiba TE, Baig MK, Wexner SD. Surgical management of rectal prolapse. *Arch Surg*. 2005; 140: 63-73.
- [4] Bastawrous A, Abcarian H. Complete rectal prolapse. In: Dempsey DT, Klein AS, Pemberton JH, Peters JH, editors. *Suckelford's Surgery of the alimentary tract*. Volume 2. 6th edition. Philadelphia: Saunders Elsevier; 2007. pp. 1958-1965.
- [5] Tjandra JJ, Fazio VW, Church JM, Milsom JW, Oakley JR, Lavery IC. Ripstein procedure is an effective treatment for rectal prolapse without constipation. *Dis Colon Rectum*. 1993; 36: 501-507.
- [6] McCue JL, Thomson JP. Clinical and functional results of abdominal rectopexy for complete rectal prolapse. *Br J Surg*. 1991; 78: 921-923.
- [7] Solomon MJ, Young CJ, Evers AA, Roberts RA. Randomized clinical trial of laparoscopic versus open abdominal rectopexy for rectal prolapse. *Br J Surg*. 2002; 89: 35-39.
- [8] Habr-Gama A, Jacob CE, Perez RO, Proscurshim I. Rectal prolapse: Perineal approach. In: Fischer JE, Bland KI, editors. *Mastery of Surgery*. Volume 2. 5th edition. Philadelphia: Lippincott Williams and Wilkins; 2007. pp. 1591-1599.
- [9] Miles WE. Rectosigmoidectomy as a method of treatment for proctidemia recti. *Proc R Soc Med*. 1933; 26: 1445-1452
- [10] Altemeier WA, Culbertson WR, Schwengerdt C, et al. Nineteen years' experience with the one-stage perineal repair of rectal prolapse. *Ann Surg*. 1971; 173:993-1006
- [11] Ramanujam PS, Venkatesh KS, Fietz MJ. Perineal excision of rectal proctidemia in elderly high-risk patients. A ten-year experience. *Dis Colon Rectum*. 1994; 37: 1027-1030.
- [12] Goligher JC. *Surgery of the anus, rectum and colon*. 5th ed. London: Bailliere Tindall; 1984. p. 302.
- [13] Friedman R, Muggia-Sulam M, Freund HR. Experience with the one-stage perineal repair of rectal prolapse. *Dis Colon Rectum*. 1983; 26: 789-791.
- [14] Zbar AP, Takashima S, Hasegawa T, Kitabayashi K. Perineal rectosigmoidectomy (Altemeier's procedure): a review of physiology, technique and outcome. *Tech Coloproctol*. 2002; 6: 109-116.