

# Altemeier operation for gangrenous rectal prolapse

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A strangulated rectal prolapse is a rare cause of intestinal occlusion. It requires emergency surgery. A patient who underwent emergency perineal proctectomy, the Altemeier operation, combined with diverting loop sigmoid colostomy is described. The postoperative course was uneventful, with an excellent final result after colostomy closure. The successful treatment of this patient illustrates the value of the Altemeier procedure in the difficult and unusual scenario of bowel incarceration.

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Incarceration rarely complicates the chronically progressive form of full-thickness rectal prolapse. Even more rarely does the rectum become strangulated, necessitating emergency surgery. The case of a 70-year-old man who presented with strangulated rectal prolapse and was managed successfully with perineal proctosigmoidectomy (Altemeier's procedure) combined with diverting sigmoid loop colostomy is described.

## Case report

A healthy 70-year-old man of normal weight presented with a 10-year history of troublesome rectal bleeding and a prolapse of an anal mass at defecation. It had always been possible to reduce the mass manually. He was sent to the emergency room because the mass had become painful and irreducible. He also complained of abdominal pain and vomiting of 3 days' duration, and reported a history of chronic constipation.

On physical examination, the temperature was 37.8°C and the patient was haemodynamically stable. The abdomen was distended, with bowel sounds present.

Rectal examination revealed approximately 10 cm of prolapsed rectum. The protruding rectum was markedly swollen and congested, and showed signs of superficial mucosal erosion and necrosis. Laboratory investigations showed mild leucocytosis with left shift. An erect plain abdominal radiograph suggested the presence of functional occlusion. Because the bowel was obviously necrotic, conservative

measures were not considered. With the patient under general anaesthesia, the rectal wall was incised across its full thickness. The vessels of the mesorectum were carefully ligated, the prolapsed rectum was resected, and a hand-sewn interrupted colo-anal anastomosis in two layers was created. In addition, a loop sigmoid colostomy was constructed. The patient's postoperative course was fairly uneventful, and he was discharged after 7 days. Histological examinations of stained sections of the resected rectum revealed severe ischaemic changes. The vessels of the bowel wall were found to be either dilated or thrombosed, and there were multiple regions of necrosis and ulceration in the mucosa. The colostomy was closed without further complications 3 months later. Since then, the patient has been well.

## Conclusion

Clinical experience as reflected in the literature indicates that surgery should be performed early in strangulated rectal prolapse. Our patient had a functional occlusion, so laparotomy was not required. The advantage of the perineal procedure used in this case is that laparotomy can be avoided, which makes it suitable for high-risk patients and those with an incarcerated, strangulated or gangrenous prolapsed rectal segment. The main disadvantage is the high recurrence rate, which has been reported to range from 5% to 50%.<sup>[1]</sup>

## REFERENCE

1. Voulimeneas I, Antonopoulos C, Alifierakis E, Ioannides P. Perineal recto-sigmoidectomy for gangrenous rectal prolapse. *World J Gastroenterol* 2010;16(21):2689-2691. [http://dx.doi.org/10.3748/wjg.v16.i21.2689]



Fig. 1. Strangulated rectal prolapse with necrosis.



Fig. 2. Altemeier procedure.



Fig. 3. Gangrenous resected rectal specimen.



Fig. 4. Altemeier procedure completed.