

**ALTEMEIER-LIKE REPAIR OF COLOSTOMY PROLAPSUS;
CASE REPORT****Kolostomi prolapsusunun Altemeier benzeri onarımı;
Olgu sunumu**

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ABSTRACT

Colostomy prolapsus is protrusion of full-thickness of colonic wall from stoma. It is generally seen in patients with significant comorbidities who were constructed loop colostomy. Rarely it can be seen after end colostomy construction. Many treatment modalities are described for stoma prolapsus, usually the most preferred method is changing stoma place with laparotomy. In this study, we presented a colostomy prolapsus repaired by Altemeier-like surgical technic. While laparotomy and changing stoma place is generally preferred method, Altemeier-like stoma repair is one of the less invasive and comfortable choice of treatment.

Key Words: Colostomy, prolapsus, Altemeier repair

ÖZET

Kolostomi prolapsusu kolon duvarının stomadan tam kat protrüze olmasıdır. En sık acil cerrahi esnasında belirgin yandaş hastalığı olan hastalara açılan loop kolostomilerde görülse de nadir olarak uç kolostomi uygulamalarından sonra da karşılaşılabilmektedir. Stoma prolapsusların tedavisinde çeşitli cerrahi yöntemler tanımlanmış, genellikle laparotomi ile stoma yerinin değiştirilmesi tercih edilen yöntem olmuştur. Bu çalışmada, rektal prolapsusun tedavi seçeneklerinden biri olan Altemeier onarımına benzer bir cerrahi teknik ile tedavi edilen kolostomi prolapsusu olgusu sunulmaktadır. Genellikle laparotomi ve stoma yerinin değiştirilmesi şeklinde tedavi edilen bu hastalarda, Altemeier benzeri stoma onarımı da minimal invazif ve konforlu cerrahi seçeneklerden biridir.

Anahtar Kelimeler: Kolostomi, prolapsus, Altemeier onarımı

INTRODUCTION

Colostomy prolapsus is protrusion of full-thickness of colonic wall from stoma. It is generally seen in patients with significant comorbidities who were constructed loop colostomy. Rarely it can be seen after end colostomy construction. Although this complication is not fatal and arises in the late period, it is boring situation in terms of physical and physiologic condition for patient and in terms of choice of treatment and succes of surgery for surgeon.¹⁻³

Many treatment modalities are described for stoma prolapsus, usually the most preferred method is

changing stoma place with laparotomy. There is no well accepted standart method for colostomy repair.^{4,5} Altemeier procedure (Perineal Proctosigmoidec-tomy) is one of over 130 treatment choices of rectal prolapsus. Briefly, this technic is performed under general or spinal anaesthesia, circumferential incision is made to the prolapsed colonic mucosa, after reaching mesenterium of colon, resection is performed and proximal and distal colon segments are anastomosed and proctosigmoidectomy is carried out.⁶

In this study, we presented a colostomy prolapsus repaired by Altemeier-like surgical technic.

Case

The patient with colostomy prolapsus, 30-year-old male, admitted to our hospital (Figure 1). His complaints began 8 months ago. The patient get injured by high velocity bullet in 1995, and had grade 3-4 distal rectum and 11th thoracal level medulla spinalis injuries. At that time Hartman procedure and presacral drainage were performed, and there was no problem postoperative period. Since he is paraplegic, he refused colostomy repair at that time and he has been living with colostomy for 14 years without problem. He expressed that the colostomy prolapsus is getting bigger for 8 months and we decided to operate him.

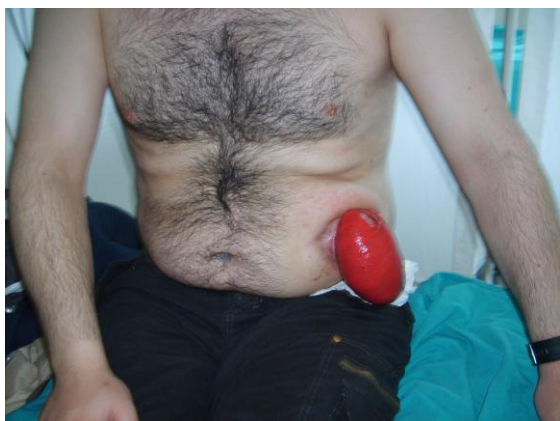


Figure 1: Colostomy prolapsus.

During preoperative evaluation, he had no comorbidity except paraplegia, peristomal fascia was normal and we performed colonoscopy via stoma and the result was normal. After general anaesthesia and skin cleaning, colon was freed with circular incision to skin-stoma junction. Prolapsed colonic segment and its serosa was made a plain segment. Mesenterium dissection was carried out and prolapsed segment was resected. The skin which was enlarged around former stoma was closed up and colostomy was reconstructed (Figure 2).



Figure 2: Altemeier-like repair.

The patient was discharged 3rd day after operation. Peristomal skin abscess occurred in post-

operative 9th day. Patient was readmitted to hospital, we performed abscess drainage followed by intravenous antibiotic treatment, and the patient was discharged without problem.

DISCUSSION

High intraabdominal pressure, opening big hole on the fascia for colostomy, inadequate fixation of colon mesenterium to the parietal periton are playing important role for colostomy prolapsus pathophysiology.⁹ Other factors are, long sigmoid colon, sudden increase of intra-abdominal pressure (cough, strain), belt-tightening.

Colostomy prolapsus is frequently seen with loop colostomies, rarely with end colostomies.⁷ Chandler et al investigated 491 colostomy patients and determined that colostomy prolapsus is seen generally male and under 60-year-old patients.⁸ Our case was 30-year-old and had stoma for 15 years.

Currently colostomy prolapsus is treated by many technics, laparotomy or without laparotomy, local or general anaesthesia. Owing to breakthroughs on stapler technology, treatment of colostomy prolapsus is made faster and less invasive.^{1-3,7}

When we investigate the pathophysiologic mechanisms between colostomy prolapsus and rectal prolapsus, there are some predisposing factors: Increasing intraabdominal pressure, decreasing surrounding tissue support. And both can be treated by many technics. We used a technic which is similar Altemeier's perineal sigmoidectomy for our case. The biggest advantage of our technic is to avoid laparotomy and its morbidity. In case of necessity mesh can be placed on defect via same incision. In our opinion, the reason of the peristomal abscess is subcutaneous infection after revision of defective skin.

In conclusion, prolapsus of colostomy is annoying situation for both, patient and surgeon, even if it is unusual. While laparotomy and changing stoma place is generally preferred method, Altemeier-like stoma repair is one of the less invasive and comfortable choice of treatment.

REFERENCES

1. Hata F, Kitagawa S, Nishimori H, et al. A novel, easy, and safe technique to repair a stoma prolapse using a surgical stapling device. *Dig Surg.* 2005;22(5):306-9.
2. Ferguson HJ, Bhalerao S. Correction of end colostomy prolapse using a curved surgical stapler, performed under sedation. *Tech Colo-proctol.* 2010;14(2):165-7.
3. Corman ML. Intestinal Stomas. In *Colon and Rectal Surgery*, 5th Ed., Lippincott Williams & Wilkins, New York, 2005, pp;1542-3.
4. Hsieh MY, Liu C, Ho SH, Wung SH, Chin T, Wei C. Simple device for treating prolapsing loop colostomy. *J Chin Med Assoc* 2006;69(3):138-9.
5. Gordon PH, Rolstad BS, Bubrick MP. Intestinal Stomas. In: *Principles and practice of sur-*

gery for the colon, rectum and anus, 3rd Ed., Informa Healthcare, Philadelphia, 2007, pp:1053-4.

6. Zbar AP, Takashima S, Hasegawa T, Kitabayashi K. Perineal rectosigmoidectomy (Altemeier's procedure): a review of physiology, technique and outcome. *Tech Coloproctol.* 2002; 6(2):109-16.

7. Park JJ, Pino AD, Orsay CP, et al. Stoma complications. *Dis Colon Rectum* 1999;42(12): 1575-80.

8. Chandler JG, Evans BP. Colostomy prolapse. *Surgery* 1978;84(5):577-82.

9. Maeda K, Maruta M, Utsumi T, et al. Pathophysiology and prevention of loop stomal prolapse in the transverse colon. *Tech Coloproctol* 2003;7(2):108-11.