Stomal Prolapse in patients with a transverse loop colostomy for colorectal cancer

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1.Introduction

- In the treatment of colorectal cancer, a transverse loop colostomy may be placed as a palliative surgery in cases of colorectal obstruction, difficulty in resecting the primary tumor, or poor general condition.
- Stomal prolapse is one of the complications after stoma construction, which rarely resolves conservatively and reduces the quality of life due to the difficulty in managing the prolapsed colon.
- Furthermore, surgical treatment may be necessary in cases of intractable bleeding due to prolapse of the prolapsed colon.
- In this study, we investigated stomal prolapse in patients with a transverse loop colostomy for colorectal cancer experienced at our hospital.

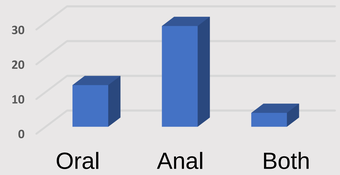
2. Patients and methods

233 patients who underwent a transverse loop colostomy for colorectal cancer during the 10-year period from January 2010 to December 2019.

- Stomal prolapse 45 cases(19%)
- Non-Stomal prolapse 188 cases(81%)

The age, sex, duration of occurrence, prophylaxis of colon prolapse, and complications in these cases were studied retrospectively.

3. A review of cases with stoma prolapse



Total 45 cases

Oral side 12 cases (27%)

Anal side 29 cases (64%)

Both sides 4 cases (9%)

Average age of onset: 65.1 years
Cases with onset within 1 year: 38 cases (84%)
Cases required surgical treatment: 1 case (2%)

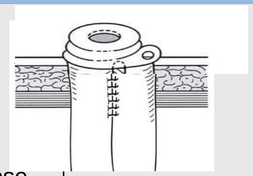
4. Comparison of stomal prolapse cases and non-prolapse cases

	stomal prolapse **45cases**	non-prolapse **188cases**	**P-value**
Age	65.1 (39-90)	65.9(16-96)	0.702
Sex (male)	24 (53%)	121 (64.3%)	0.379
BMI (kg/m^2)	21.3 (16.6-28)	23.03 (14.6-35.05)	0.150
Reasons for stoma construction			
Bowel obstruction	9(21%)	26(14%)	0.268
Lesion with high possibility of obstruction	18(41%)	86(46%)	0.573
To precede chemotherapy	5(11%)	15(8%)	0.442
Poor general condition	5(11%)	20(11%)	0.512

	stomal prolapse **45cases**	non-prolapse **188cases**	**P-value**
Operation time (min)	87.1(20-308)	82.3(15-249)	0.223
Blood loss (mL)	31.6(5-500)	20.7(5-760)	0.442
Other complications			
Stoma site hernia	7(15%)	16(9%)	0.103
Mucocutaneous separation	3(6%)	5(3%)	0.082
Peristomal dermatitis	4(9%)	29(15%)	0.851

5. Our attempt to reduce the incidence of stomal prolapse

1. **Suture the mesenteric attachment** between the oral side of the bowel incision and the mesenteric attachment on the anal side of the bowel with 4-5 cm sutures.
2. **Fixation of the colostomy** on the anal side to the abdominal wall.



	stomal prolapse **45cases**	non-prolapse **188cases**	**P-value**
Suture the mesenteric attachment	17(37%)	78(41%)	0.736
Fixation of the colostomy	14(31%)	55(29%)	0.858

6. Summary

- Of the cases of colorectal prolapse after the installation of a transverse loop-colostomy for colorectal cancer, 84% occurred within 1 year.
- However, only one case (2%) required surgical treatment.
- Factors involved in the presence or absence of colostomy prolapse could not be identified.
- In our hospital, the aforementioned technique was added to prevent the onset of colostomy prolapse, but there was no significant difference in the rate of prophylaxis between the colostomy prolapse group and the non-prolapse group.

7. Discussion

- Although stomal prolapse can significantly impair patients' quality of life (QOL), it is often neglected because prolapse itself does not put patients at risk of death.
- Prolapse occurs in about 0.9% to 14% of postoperative colostomies and is more common in the loop colostomy, and in the right side of the colon than in the left.
- The incidence is about five times higher in cases of obstruction of the colon or rectum than in cases of non-obstruction.

Kunisaki et al. listed the following as risk factors for colostomy prolapse:

1. Excessive opening of the abdominal wall
2. Inadequate fixation
3. Increased abdominal pressure
4. Wound infection
5. Intra-abdominal route
6. Non-transabdominal rectus route
7. Excessive slack of the bowel.

   In cases with loop colostomy
8. Obstruction of the colostomy on the anorectal side
9. Narrowing of the bowel diameter after decompression

Kunisaki C, Ooki S, and Tsuchiya S: Journal of the Japan Society of Coloproctology 43:208-211, 1990 (article in Japanese)

8. Conclusion

- In this study, we could not find the cause of colostomy prolapse or useful ways to prevent prolapse.
- Further studies are needed to reduce colostomy prolapse after loop colostomy so as not to compromise the patient's quality of life.