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Evaluation of Local Excision for Rectal Tumor

Masao Tomita, Toru Nakagoe, Hiroyuki Kusano, Teruhisa Shimizu, and Tatsuo Hirano

The First Department of Surgery, Nagasaki University School of Medicine

Fourteen patients with a local excision for rectal cancer were clinically evaluated in terms of the surgical indication and the outcome.

As far as the histologic findings of ly (-) v (-) and no massive invasion into the mucosal or submucosal layers may be disclosed, the result of a local resection for rectal cancer would be satisfied. In conclusion, it is interest to emphasize that the indication of a local excision should be extended from the standpoint of postoperative good fecal control.

Introduction

A local excision for rectal cancer was indicated for patients in whom oncological radicality should be ensured and/or surgical insult should be minimized for poor risk patients.

In this study, the prognosis for patients who underwent local excision of rectal cancer was analyzed on the basis of a result of clinical experience and also the significance and the validity of a local excision for rectal cancer were evaluated in detail. In addition, we discussed mainly on the precise indication of a local excision for rectal cancer.

Patients

During the past 10 years from January 1979 to December 1988, 14 patients underwent a local excision for rectal cancer.

According to primary diseases as shown in Table 1, adenoma was in one, early cancer was in nine (m-carcinoma two, and sm-carcinoma seven), advanced cancer was in three (pm two and a_1 one), and malignant melanoma was in one respectively.

The distribution of sex in this group was quite equivalent. The ages of patients were between 32 and 82 with an average of 61.8 years.

The operative procedures were trans-sphincteric approach in 10 and transsacral in four. There was no clinical experience with trans-anal approach in this series.

The location of the tumor was shown as the distance from the dentate lines to lower margins of the tumor mass as indicated in Table 2. The distance of two to 4. 9 cm from the dentate line included six out of 10 and next 5.0 to 6.9 cm in two cases. The longest was 10 cm.

Table 1. Patients with a local excision for rectal cancer

histology	
adenoma	1
early cancer	
m-carcinoma	2
sm-carcinoma	7
advanced cancer	
pm-carcinoma	2
a_1-carcinoma	1
malig. melanoma	1
	14

men to female 7 to 7
age 32 to 82 a mean of 61.8 years old

Operative procedure	
trans-sphincteric approach	10
trans-sacral approach	4

Table 2. Tumor locations (the distance from the dentate line) and tumor sizes

distance (cm)	~1.9	2~4.9	5~6.9	7~9.9	10~
from the dentate line	1	6	2		1
transphincteric trans-sacral	1	1	1	1	
diameter (cm)	~1.9	~4.9	~6.9	~9.9	10~
trans-sphincteric	3	5	1		1
trans-sacral	2	2			

On the other hand, the trans-sacral approach included each cases within 1.9 cm, 4.9 cm, 6.9 cm and 9.9 cm from the dentate line, respectively.

The tumor size showed less than 4.9 cm in most of the patients with both trans-sphincteric and trans-sacral approaches. The maximum of the tumor size was 12.5x8.5 cm in size.

As for histologic findings, well and moderately differentiated adenocarcinomas were almost half, including six cases respectively.

The findings of histologic vascular invasion were seen in three and all the other cases were Ly_0. On the other hand, v_1 finding was seen only in two.

The postoperative complication of anastomosis insufficiency occurred in three in whom one was minor enough to heal spontaneously and the remaining two were required temporary colostomy on the postoperative 14th and 20th day respectively as shown in Table 3.

The other two patients had a complication of wound infection. However, both healed and closeds pontaneously without special treatments.

In view of postoperative fecal control, good fecal control was shown in patients with the trans-sphincteric approach. Only one was reverted to good fecal control one month after surgery.

On the other hand, patients with the trans-sacral approach showed fair fecal control and soiling in one disappeared at one month after surgery. Only one compared from persistent fecal retention feeling and carcinoma recurred locally and with multiple hepatic metastasis two years and nine months after surgery.

Persistent retension feeling of poor fecal control semed to be a using of recurrence of carcinoma.

The prognosis of m-carcinoma was satisfactorily fair and living eight years and 7.4 years without any recurrence, respectively. Two patients with cancer residue survived eight years and 8.5 years respectively in whom one was well differentiated adenocarcinoma with ly_0 and v_1 and the other moderately differentiated adenomarcinoma with ly_0 and v_0.

Advanced cancer of a_1 carcinoma with moderately differentiated, ly_2 expired 11 months after surgery with liver metastasis and two patients with pm carcinoma died of recurrence of carcinoma 3.1 and 3.4 years after surgery.

Table 3. Postoperative complication and postoperative control

1) transsphincteric approach

age sex	location DL (cm)	shape size	histology	postop. complication	fecal control	prognosis
72 F	10.0 γ	I s-v 4.5 × 4.0	well diff. m ly_0v_0	(-)	good	alive 8 years
51 F	9.0 ant	II a 1.5 × 1.0	well diff. m ly_0v_0	(-)	good	alive 7.4 years
70 F	5.0 ant	I s-v 6.5 × 5.0	well diff. m ly_0v_0	(-)	good	alive 5.4 years
67 M	3.0 post	I s-v 12.5 ×	well diff. m ly_0v_0	wound infection	good	alive 6.9 years
45 F	4.0 ant	I ps 1.5 × 1.0	well diff. m ly_0v_0	(-)	good	alive 8 years
37 F	6.0 post	I s 1.8 × 1.2	well diff. m ly_0v_0	(-)	good	alive 8.5 years
48 M	4.0 rt	I ps 8.5 × 3.0	well diff. m ly_0v_0	anastomosis insuff	recovery 2 months after op	alive 8 years
53 M	3.0 ant	Borr I 3.5 × 3.0	well diff. m ly_0v_0	anastomosis insuff	colostomy day 20	died 11 m
80 M	3.0 ant	II a 3.5 × 3.0	adenoma	(-)	recovery 1 m	alive 3 years
85 M	1.0 ant	I s 2.5 × 1.7	malg. melanoma	(-)	good	died 7 m

2) transsacral approach

32 F	7.0 rt	I s 1.5 × 1.4	mod dif sm ly_1v_1	wound infection	feeling retention	died 3.2 m
70 M	5.0 ant	II a+ II c 2.3 × 1.0	mod diff sm ly_1v_0	(-)	resumed sensation 1m	alive 5.8 years
76 M	2.0 rt	I s 1.2 × 1.0	well diff pm ly_0v_0	anastomosis insuff	colostomy day 14	alive 5.8 years
82 F	direct above rt	Borr II 3.2 × 3.0	mod diff pm ly_1v_1	(-)	stenosis	died 11 m

Discussion

The operative procedures of a excision for rectal cancer are composed of trans-sphincteric trans-sacral and trans-anal approaches. The surgical indication of a local excision has been corroborated by Muto,[1] 1Iunable to do polypectomy due to large size of villous adenoma and plate adenoma, 2) protruded early carcinoma with large stalk, 3) elevated ulcerative early cancer lesion of less than 3 cm in size which needed an surgical procedure of Mile's operation, 4) poor risk and high aged patients who are intolerable to surical insult of laparotomy, 5) pallative surgery for patients with hepatic metastasis and peritonitis carcinomatosa.

Other investigators[2,3] have a similar opinion concerning a local excision of rectal cancer.

Recently, cancer extension including lymphnode metastasis of m and sm-carcinomas and the mechanism of cancer spreading could be now interpretable in the pathogenesis of cancer extension from m- and sm- carcinomas of rectal cancer is necessary for ensuring high quality of life and raising oncologic radicality. In addition, it has become widely recognized that this procedure is reasonable and reliable for early carcinomas for ensurement of high quality of life.

It is generally accepted that there is a 3.7 to 18.2% incidence of nodal involvement in sm-caricnoma.[4,5]

Moreover, it is difficult to precisely assess a presence of node metastasis even by using CT and EUS. Therefore, it is not so easy to determine the indication of a local excision of rectal cancer by accurrate assessment of the degree of cancer extension. It, however, is generally believed that as the lower rectum of Rb is usual fortuitous location of sm-carcinoma,[6] so selection of the operative procedure is a matter of great concern.

It also is well known that the size of sm-carcinoma concentrated on as large as 10 to 20 mm in size[7] and the sizes are not associated with the depth of and the amount of carcinomas.[8]

Apart from the size of cancer lesion, it is necessry to determine the depth of carcinoma. According to macroscopic finding, it is common that the ulcerative lesions of sm-carcinoma of less than 10 mm in size, are to be recognized as an advanced cancer.[9,10]

It is recognized that ulcerative lesion which appears to be sm-carcinoma should be managed to be advanced cancer leison. On the other hand, there are some reports that positive histologic findings of vascular invasion which is mostly referable to distant metastasis occurrs in 7.4%[10] to 17. 4%[11] in frequence.

Surgeons should be aware of sm-carcinoma that there are more often accompanying nodal involvement with sm carcinoma when massive cancer invasion into the submucosal layer is seen with positive vascular invasion.

Furusawa[13] reported that the prognosis of surgical resection was much more satisfactory that of polypectomy for sm-carcinoma with positive vascular invasion.

It is accepted that a presence of histologic vascular invasion in sm-carcinomas is greatly associated with their prognoses. Furthermore, histology of massive invasion into the submucosal layer is one of the most important finding in relation to justification of involved nodes.

Some report[14] clarified that additional resected specimen showed the finding of cancer invasion to nodes in cases of showing massive invasion into the submucosal layer.

It is emphasized that the indication of a local excision for rectal cancer should be determined by taking the factors into consideration such as the histologic findings of ly factor, massive invasion into the submucosal layer and the degree of histologic differentiation.

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