<table>
<thead>
<tr>
<th>項目</th>
<th>内容</th>
</tr>
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<td>題目</td>
<td>長崎大学大学院医学部裘部外来外科学教室の痔の治療についての評価</td>
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<tr>
<td>作者</td>
<td>Tomita, Masao; Nakagoe, Toru; Kusano, Hiroyuki; Shimizu, Teruhisa; Hirano, Tatsuo</td>
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Evaluation of Local Excision for Rectal Tumor

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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 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 trans-sacral 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.

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.

### Table 1. Patients with a local excision for rectal cancer

<table>
<thead>
<tr>
<th>histology</th>
<th>count</th>
</tr>
</thead>
<tbody>
<tr>
<td>adenoma</td>
<td>1</td>
</tr>
<tr>
<td>early cancer</td>
<td></td>
</tr>
<tr>
<td>m-carcinoma</td>
<td>2</td>
</tr>
<tr>
<td>sm-carcinoma</td>
<td>7</td>
</tr>
<tr>
<td>advanced cancer</td>
<td></td>
</tr>
<tr>
<td>pm-carcinoma</td>
<td>2</td>
</tr>
<tr>
<td>a,-carcinoma</td>
<td>1</td>
</tr>
<tr>
<td>malig. melanoma</td>
<td>1</td>
</tr>
</tbody>
</table>

| total | 14 |

<table>
<thead>
<tr>
<th>sex</th>
<th>men to female 7 to 7</th>
</tr>
</thead>
<tbody>
<tr>
<td>age</td>
<td>32 to 82 a mean of 61.8 years old</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Operative procedure</th>
<th>count</th>
</tr>
</thead>
<tbody>
<tr>
<td>trans-sphincteric approach</td>
<td>10</td>
</tr>
<tr>
<td>trans-sacral</td>
<td></td>
</tr>
<tr>
<td>count</td>
<td>4</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>distance (cm)</th>
<th>from the dentate line</th>
<th>trans-sphincteric trans-sacral</th>
</tr>
</thead>
<tbody>
<tr>
<td>~1.9</td>
<td>1 1</td>
<td>1 1</td>
</tr>
<tr>
<td>2-4.9</td>
<td>6 2</td>
<td>5 1</td>
</tr>
<tr>
<td>5-6.9</td>
<td>2 1</td>
<td>1 1</td>
</tr>
<tr>
<td>7-9.9</td>
<td>1 1</td>
<td>1 1</td>
</tr>
<tr>
<td>10-</td>
<td>1 2</td>
<td>1 1</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>diameter (cm)</th>
<th>trans-sphincteric</th>
<th>trans-sacral</th>
</tr>
</thead>
<tbody>
<tr>
<td>~1.9</td>
<td>3 5</td>
<td>2 2</td>
</tr>
<tr>
<td>~4.9</td>
<td>~6.9</td>
<td>~9.9</td>
</tr>
<tr>
<td>~9.9</td>
<td>~10</td>
<td>~10</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Table 3. Tumor sizes</th>
</tr>
</thead>
<tbody>
<tr>
<td>size (cm)</td>
</tr>
<tr>
<td>maximum</td>
</tr>
<tr>
<td>12.5x8.5</td>
</tr>
</tbody>
</table>
The findings of histologic vascular invasion were seen in three and all the other cases were Ly6. On the other hand, v1 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 closed spontaneously 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 retention feeling of poor fecal control seemed 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 ly6 and v1 and the other moderately differentiated adenomarcinoma with ly6 and vo.

Advanced cancer of a, carcinoma with moderately differentiated, ly2 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

<table>
<thead>
<tr>
<th>age</th>
<th>sex</th>
<th>location DL (cm)</th>
<th>shape size</th>
<th>histology</th>
<th>postop. complication</th>
<th>fecal control</th>
<th>prognosis</th>
</tr>
</thead>
<tbody>
<tr>
<td>72</td>
<td>F</td>
<td>10.0</td>
<td>Is-v</td>
<td>well diff.</td>
<td>(-)</td>
<td>good</td>
<td>alive</td>
</tr>
<tr>
<td>51</td>
<td>F</td>
<td>9.0</td>
<td>Post</td>
<td>well diff.</td>
<td>(-)</td>
<td>good</td>
<td>8 years</td>
</tr>
<tr>
<td>70</td>
<td>F</td>
<td>6.5 x 5.0</td>
<td>Is-v</td>
<td>well diff.</td>
<td>(-)</td>
<td>good</td>
<td>5.4 years</td>
</tr>
<tr>
<td>67</td>
<td>M</td>
<td>3.0</td>
<td>Is-v</td>
<td>well diff.</td>
<td>wound infection</td>
<td>good</td>
<td>6.9 years</td>
</tr>
<tr>
<td>45</td>
<td>F</td>
<td>4.0</td>
<td>Is-l</td>
<td>well diff.</td>
<td>(-)</td>
<td>good</td>
<td>alive</td>
</tr>
<tr>
<td>37</td>
<td>F</td>
<td>6.0</td>
<td>Is</td>
<td>well diff.</td>
<td>(-)</td>
<td>good</td>
<td>8 years</td>
</tr>
<tr>
<td>48</td>
<td>M</td>
<td>4.0</td>
<td>Is</td>
<td>well diff.</td>
<td>anastomosis insuff</td>
<td>recovery 2</td>
<td>alive</td>
</tr>
<tr>
<td>53</td>
<td>M</td>
<td>3.0</td>
<td>Borr I</td>
<td>well diff.</td>
<td>anastomosis insuff</td>
<td>colostomy</td>
<td>died</td>
</tr>
<tr>
<td>80</td>
<td>M</td>
<td>3.0</td>
<td>II a</td>
<td>adenoma</td>
<td>(-)</td>
<td>recovery 1 m</td>
<td>alive</td>
</tr>
<tr>
<td>85</td>
<td>M</td>
<td>1.0</td>
<td>Is</td>
<td>malg.</td>
<td>(-)</td>
<td>good</td>
<td>died</td>
</tr>
</tbody>
</table>

2) transsacral approach

<table>
<thead>
<tr>
<th>age</th>
<th>sex</th>
<th>location DL (cm)</th>
<th>shape size</th>
<th>histology</th>
<th>postop. complication</th>
<th>fecal control</th>
<th>prognosis</th>
</tr>
</thead>
<tbody>
<tr>
<td>32</td>
<td>F</td>
<td>7.0</td>
<td>Is</td>
<td>mod diff</td>
<td>wound feeling</td>
<td>died</td>
<td>3.2 m</td>
</tr>
<tr>
<td>70</td>
<td>M</td>
<td>5.0</td>
<td>Post</td>
<td>mod diff</td>
<td>(-)</td>
<td>resumed</td>
<td>alive</td>
</tr>
<tr>
<td>76</td>
<td>M</td>
<td>2.0</td>
<td>Is</td>
<td>well diff.</td>
<td>anastomosis insuff</td>
<td>colostomy</td>
<td>alive</td>
</tr>
<tr>
<td>82</td>
<td>F</td>
<td>direct above</td>
<td>Borr II</td>
<td>mod diff</td>
<td>(-)</td>
<td>stenosis</td>
<td>died</td>
</tr>
<tr>
<td>85</td>
<td>F</td>
<td>3.2 x 3.0</td>
<td>pm ly7</td>
<td>pm ly7</td>
<td>pm ly7</td>
<td>pm ly7</td>
<td>11 m</td>
</tr>
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</table>
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) I1unable to do polypectomy due to large corssed 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 pa-

Other investigators8,9 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-carcinoma.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 accurate 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 size8 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 necessary to determine the depth of carcinoma. According to macroscopic finding, it is common that the ulcerative lesions of sm-carcinomas 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 occurs in 7.4%10 to 17.4%11 in frequency.

Surgeons should be aware of sm-carcinoma that there are more often accompanying nodal involvement with sm carcino-

M. Tomita et al.: Evaluation of Local Excision for Rectal Tumor carcinoma when massive cancer invasion into the submu-

cosal layer is seen with positive vascular invasion.

Furusawa13 reported that the prognosis of surgical resec-
tion 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 report14 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.

References

9) Maruyama M et al: Maruyama M et al: Further study on the diagnosis of early cancer of the large bowel, with special reference to reeval-

uation of diagnostic criteria and some problems on endoscopic poly-