

Local Excision of Rectal Cancer—Clinical Decision-Making

Joe J. Tjandra, MD, FRACS, FRCS, FRCPS, and Lincoln Israel, MBChB, FRACS

A small group of patients with “early” rectal cancers that have favorable characteristics can be cured by local excision, without the need for a radical resection. The key is very careful selection of patients, precise surgical techniques, fastidious histologic review of the specimens, and judicious use of postoperative adjuvant therapy. Recurrence after a local excision significantly worsens the prognosis of patients who had a relatively localized rectal cancer that has a high cure rate by radical resection alone. This article focuses on the indications and limitations of local excision of rectal cancer and highlights gaps in our knowledge that mandates further study.

Semin Colon Rectal Surg 16:47-55 © 2005 Elsevier Inc. All rights reserved.

KEYWORDS local excision, rectal cancer, postoperative adjuvant therapy

The standard curative surgical treatment of rectal cancer is by radical resection of the rectum with an adequate distal and circumferential margin including the draining lymph nodes within the “mesorectal package” and along the inferior mesenteric artery.¹ Rectal cancers are usually treated whenever possible by a restorative resection of the rectum. An abdominoperineal resection of the rectum (APR) is indicated if the cancer is in the distal rectum with involvement of the anal sphincters, if there is inadequate distal margin for an anastomosis, or if there is already poor sphincter function. Restorative surgery has been applied to an increasing number of cases over the last few decades with the advent of stapling techniques which enable a low colorectal anastomosis, acceptance of shorter distal margins, which may be further facilitated by neoadjuvant chemoradiotherapy, and increasing surgical specialization. Resection may be combined, in selected patients, with pre- or postoperative adjuvant chemoradiotherapy. With this multimodal management excellent local control of the cancer can be obtained and long-term survival is optimized.² This is the standard against which all other methods of management must be measured.

Resectional surgery is associated with substantial morbidity, decreased quality of life, and risk of urinary, sexual, and bowel dysfunction. Operative mortality of resectional sur-

gery ranges from 1 to 6%.³ If the patient requires an APR and a stoma, there are major psychosocial adjustments to be made. Local excision of a rectal cancer is therefore a very appealing proposition to avoid these risks and possibly a stoma. These considerations should be weighed against the oncologic outcome of a local excision, compared with resectional surgery. However even following an APR, local failures and deaths occur in T1 to T2 cancers, although less commonly than after a local excision.⁴ Rarely local excision may be suitable as a palliative procedure to provide local control in the presence of significant metastatic disease.

Results of Local Excision

The results of local excision of a rectal cancer have been discussed in earlier monographs. There is considerable heterogeneity in studies performed. The studies vary in patient selection, tumor staging, surgical techniques, assessment of adequacy of surgical resection, and the use of adjuvant therapies. Most data arise from retrospective single institution series which have many inherent biases, particularly with respect to patient inclusion criteria. Intensity of follow-up is variable and in retrospective series is prone to bias especially in the documentation of recurrences. Thus comparison of data is extremely difficult.

Local Excision Alone

In a recent systematic review,⁵ 968 patients in 22 studies treated with local excision alone had an overall local recurrence rate of 13.7%. When stratified by stage, T1 tumors had

Department of Colon and Rectal Surgery, Royal Melbourne Hospital, Epworth Colorectal Center, University of Melbourne, Parkville, Victoria, Australia.

Address reprint requests to: Associate Professor Joe J. Tjandra, Suites 15 and 16, Private Medical Center, Royal Melbourne Hospital, Royal Parade, Parkville, Victoria 3050, Australia. E-mail: tjandra@connexus.net.au

Table 1 Local Excision Alone

Reference	Number	Stage	Median Follow-Up (Range)	Local Recurrence	Distant Metastases	Survival
Paty et al, 2002 ⁶	94	T1: 67 T2: 27	80 months (24-271)	17% (10 year) 28% (10 year)	9.5%	10 year DFS 74% 75%
Melgren et al, 2000 ⁷	108	T1: 69 T2: 39	54 months* (NR)	18% 47%	3.7%	5 year OS 72% 65%
Steele et al, 1999 ⁸	59	T1: 59	48 months (22-92)	5%	3.3%	6 year DFS 83%
Chakvarti et al, 1999 ⁹	52	T1: 44 T2: 8	51 months (4-162)	11% 67%	NR	5 year DFS 80% 33%

NR, not reported; DFS, disease-free survival; OS, overall survival. Follow-up * = mean; others = median.

a local recurrence rate of 9.7% (range 0 to 24%), T2 tumors had a local recurrence rate of 25% (range 0 to 50%), and T3 tumors had a local recurrence rate of 8% (range 0 to 100%). Four large recent trials of local excision⁶⁻⁹ alone are summarized in Table 1. In general, those treated with local excision alone in these studies are an extremely selected group.

These four trials reveal a wide variation in local recurrence rate from 5 to 18% and 28 to 67% for T1 and T2 tumors, respectively. These trials only included patients who have either T1 or T2 tumors on histology which had been excised with a curative intent.^{6,7,9} Only a proportion of the patients in these trials had preoperative staging with endorectal ultrasound. In three of these trials,^{6,8,9} patients with high-risk tumors were treated with adjuvant therapy.

The series from Minneapolis⁷ is the only report which attempts to compare local excision with radical resection at the same institution. One hundred eight patients treated by local excision with clear excision margins were included in the study and compared with 153 unmatched patients treated by radical surgery. The local recurrence rate in the local excision group was 28% versus 4% after resectional surgery. For T1 tumors the difference was 18% versus none and, for T2 tumors, 47 versus 6%. The estimated 5-year overall survival in patients with T2 tumors was also significantly decreased in those who underwent local excision (65% versus 81%). This study suggests that, compared with radical resection, local excision alone for T2 cancers is inadequate treatment.

Local Excision with Adjuvant Therapy

Many investigators have tried to extrapolate the beneficial effects of postoperative chemoradiotherapy in reducing local recurrence after radical surgery^{10,11} to those treated by local excision. Adjuvant therapy is therefore offered to those cancers exhibiting deeper invasion, poor histologic grade, or vascular invasion.⁵ Most published studies on adjuvant therapy and local excision are retrospective and nonrandomized. Results of recent reports are presented in Table 2. Patients selected for postoperative adjuvant therapy generally in-

cluded those with histologic T2 cancers,^{8,13} or T1 lesions with poor histological features such as lymphovascular invasion, poor histologic differentiation, or positive/close surgical margin.^{6,13} The local recurrence rates are somewhat disappointing ranging from 10 to 39% at 5 years. Similarly the disease-free survival of 60 to 75% at approximately 5 years is worrying for these "early" cancers. Adjuvant therapy is also not without risk. The Cancer and Leukemia Group B trial⁸ reported Grade 3 to 4 toxicity in 47% of the 51 patients having chemoradiotherapy for T2 tumors.

Local Excision after Neoadjuvant Therapy

There is considerable evidence that preoperative radiotherapy or chemoradiotherapy downstages high-risk rectal cancer and improves local control^{14,15} and survival¹⁶ after radical resection. There is no clear evidence in prospective trials, however, that preoperative adjuvant therapy would shrink the rectal cancer adequately to facilitate an oncologically adequate local excision and thus obviate the need for a resection.

In the reported studies (Table 3), selection criteria for local excision are based on the response to chemoradiotherapy and the majority of patients have had a significant clinical downstaging in disease before local excision.^{17,18,20} Overall it would appear that those treated with neoadjuvant therapy for T3 N0 tumors leading to a complete pathologic response (approximately 20% of patients)²¹ are likely to have acceptable local control and survival rates with local excision.^{17,20} The impact of preoperative chemoradiation on mesorectal and pelvic lymph nodes is not clear. Any residual nodal micrometastases are likely to lead to subsequent pelvic recurrence. Staging by endorectal ultrasound after radiotherapy is also less dependable in assessing the depth of local tumor invasion and lymph node status.²² Longer term, larger series are required before neoadjuvant therapy followed by local excision and should be considered in patients otherwise suitable for radical resection. In any case, such strategy is likely to be applicable only in a small proportion of patients.

Download English Version:

<https://daneshyari.com/en/article/9256546>

Download Persian Version:

<https://daneshyari.com/article/9256546>

[Daneshyari.com](https://daneshyari.com)