



# The risk-benefit trade-off in local excision of early rectal cancer

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Local excision (LE) is an important treatment option for clinical T1 rectal cancer. When performed in highly indicated patients, LE can preserve anorectal function with relatively low surgical morbidity and avoid permanent stoma [1]. As a result, it may lead to better quality of life. However, despite these benefits, there is concern that it cannot offer oncologic results equivalent to total mesorectal excision (TME). Because LE cannot remove regional lymph nodes, it carries the risk of potential lymph node metastasis. Lymph node metastasis has been reported in as many as 16% of patients with pathologic (p) T1 rectal cancer [2]; moreover, patients with T1 rectal cancer treated by LE were observed to have a 3- to 5-fold higher risk of tumor recurrence compared with patients treated by TME [3].

Until now, no randomized trials of LE and TME have been reported. In particular, there is little current comparative data to assess the oncologic outcomes in patients with clinical (c) T1 not treated with neoadjuvant chemoradiotherapy. In accordance with previous studies, the current study reported that the local recurrence rate after LE is higher than that after TME [4]. The authors reported that the 5-year local recurrence-free survival rate was 83.3% in the LE group compared with 98.9% in the TME group ( $P=0.001$ ). Interestingly, although the local recurrence was high, there was no significant difference in the overall survival rate between LE and TME in patients with pT1. In pT2, however, the cancer-specific survival was worse in the LE group than in the

TME group. After experiencing local recurrence in the LE group, the authors suggested that salvage operation could be a good treatment option. They showed that all local recurrence could be treated with salvage surgery, with good prognosis, especially in patients with pT1. In patients with a cT1 tumors appearing pathologically as pT2, approximately 32% experienced tumor recurrence. The authors reported that local recurrence arising from pT2 may also be a good candidate for salvage surgery; 1 patient died due to cancer. Because there were only 22 pT2 patients, a convincing conclusion could not be drawn. The authors showed that besides tumor depth, age and angiolymphatic invasion were independent risk factors for overall survival. This was similar to the findings of a previous study [5].

If preoperative imaging shows no risk factors, LE, which leads to fewer complications and good functional results, could be achieved in a large proportion of patients [6]. If histopathological examination identifies a worse prognosis, adjuvant treatment or salvage surgery should be recommended. Currently, salvage surgery remains the standard of care in high-risk pT1 and pT2 tumors, but the benefit of additional treatment including chemotherapy or chemoradiotherapy remains unclear. In the near future, the role of LE in clinical practice may expand due to the implementation of LE combined with other treatment strategies.

## CONFLICT OF INTEREST

No potential conflict of interest relevant to this article was reported.

## REFERENCES

1. Rothenberger DA, Garcia-Aguilar J. Role of local excision in the treatment of rectal cancer. *Semin Surg Oncol* 2000;19:367-75.
2. Brunner W, Widmann B, Marti L, Tarantino I, Schmied BM, Warschkow R. Predictors for regional lymph node metastasis in T1 rectal cancer: a population-based SEER analysis. *Surg Endosc* 2016;30:4405-15.
3. Bentrem DJ, Okabe S, Wong WD, Guillem JG, Weiser MR, Temple LK, et al. T1 adenocarcinoma of the rectum: transanal exci-

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- sion or radical surgery? *Ann Surg* 2005;242:472-7; discussion 477-9.
4. Hyun JH, Alhanafy MK, Park HC, Park SM, Park SC, Sohn DK, et al. Initial local excision for clinical T1 rectal cancer showed comparable overall survival despite high local recurrence rate: a propensity-matched analysis. *Ann Coloproctol* 2022;36:166-75.
  5. Hogan J, Chang KH, Duff G, Samaha G, Kelly N, Burton M, et al. Lymphovascular invasion: a comprehensive appraisal in colon and rectal adenocarcinoma. *Dis Colon Rectum* 2015;58:547-55.
  6. Smits LJH, van Lieshout AS, Grüter AA, Horsthuis K, Tuynman JB. Multidisciplinary management of early rectal cancer - the role of surgical local excision in current and future clinical practice. *Surg Oncol* 2022;40:101687.