

In addition to free deep margins, R0 resection should be required for T1 colorectal cancers to inform further surgical resection



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Bibliography

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Endoscopic treatment of T1 colorectal cancer (CRC) has become technically feasible with the development of various endoscopic treatment techniques, such as endoscopic submucosal dissection and endoscopic full-thickness resection. A recent study revealed that endoscopic resection of T1 CRCs is acceptable prior to considering open surgery [1]. A multicenter retrospective study from Japan showed favorable long-term outcomes for endoscopic resection in patients with T1 CRC and a low risk of lymph node metastasis (LNM) [2]. The National Comprehensive Cancer Network [NCCN] guidelines recommend additional surgical resection with lymph node dissection for any T1b CRC, given the potential risk of LNM [3].

The decision to perform further surgery in such patients is based on the results of histopathological examination of endoscopically resected specimens. The histological evaluation of the resected specimen follows the respective established treatment guidelines (the National Comprehensive Cancer Network, the European Society for Medical Oncology [ESMO], or the Japanese Society for Cancer of the Colon and Rectum [JSCCR]) [3–6]. The recommendations governing conduct of further surgery are different among the guidelines from a histopathological point of view, depending on factors such as positive margins, histological characteristics, invasion of lymphatic vessels and blood vessels, depth of submucosal invasion, and budding. Although negative deep margins are one of the essential findings supporting curative endoscopic resection, a free deep margin within 1 mm is also reported to be associated with a high risk of local recurrence [7].

In this issue of Endoscopy International Open, Gijsbers et al. investigated whether the size of the free resection margin (FRM) is a risk factor for local intramural residual cancer (LIRC) after local excision of T1 CRC. T1 CRCs without poor differentiation and lymphovascular invasion (LVI) were included in this study. They concluded that a FRM of 0.1 to 1 mm has a low risk of LIRC, especially in the absence of high-grade tumor budding. This study implied that some patients with a small FRM could avoid further surgery, which could be beneficial in improving quality of life. In addition, there was an association between tumor budding grade and distant metastasis in T1 CRCs [8].

There are several limitations to this study. In the discussion, the authors mentioned the association between FRM and distant metastasis; however, submucosal invasion depth could not be analyzed in this study. Although it has been reported that the depth of submucosal invasion is not related to the risk of metastasis if other risk factors are negative, LVI probably increases in proportion to the increase in the depth of submucosal invasion [9]. In addition, the diagnosis of lymphatic invasion is problematic because of lack of consensus among pathologists, even with subsequent immunostaining. It is clear that as the depth of submucosal invasion increases, the deep resection margin decreases, which renders R0 endoscopic resection difficult. It is possible that submucosal invasion depth, not FRM, is more likely to be associated with distant metastasis. The relevance of distant metastasis is better assessed by the submucosal invasion depth rather than by FRM.

Finally, the studies included cases wherein piecemeal resections were performed, especially cases wherein only one fragment contained malignancy, where the resection margin could be evaluated. However, previous reports have indicated that endoscopic piecemeal mucosal resection is associated with a risk of local recurrence [10]. Moreover, it is difficult to assess the exact extent of either submucosal invasion or lymphovascular invasion, with endoscopic piecemeal resection. In addition, nongranular-type laterally spreading tumors (LST-NG types) should be removed en bloc because of the higher potential for malignancy and greater difficulty in diagnosing submucosal invasion depth and extent of invasion compared with the LST-G type, even while using magnifying image-enhanced endoscopy, owing to multifocal microscopic submucosal invasion [11]. This study, which included piecemeal resections, could not sufficiently analyze such cases with multifocal invasion.

Endoscopic resection before surgical resection of a high-risk T1 CRC does not adversely affect the percentage of patients with LNM on resection and local and distant recurrence rates during follow-up [1, 12]. The demand for endoscopic resection of T1 CRCs has been increasing. After endoscopic resection, it is necessary to accurately handle the specimen and carefully consider the need for additional surgical resection. The present study suggests that FRM distance may not be related to LIRC if the resection margins are negative. Therefore, R0 resection is necessary for T1 CRC during endoscopic resection. Lesions suspected to be T1 CRCs by magnified endoscopic diagnosis should be appropriately selected for treatment with R0 resection.

The long-term outcomes of endoscopic treatment of T1 CRC have been mainly studied retrospectively. Further multicenter prospective studies are warranted to verify the results of the present study. The relationship between the VM distance and the curability upon endoscopic resection should also be clarified. In addition, the curative evaluation of local resection for T1 CRC should be based not only on concurrent LNM but also on the presence of recurrence, including distant metastasis, in the long-term course.

Competing interests

The author Seiichiro Abe is an associate editor of this journal.

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