Introduction

Endoscopic resection has become very popular practice throughout the world. Endoscopic mucosal resection (EMR) is usually a good treatment option for most of small colorectal lesions less than 2 cm. And endoscopic submucosal dissection (ESD) is very effective for much large and difficult lesions. Both of them can achieve reliable treatment results if target lesions are superficial neoplasias with negligible risk for lymph node metastasis. However, it sometimes results Rx or R1 resection and additional treatment is required in some cases.

Treatment results of each technique

1. EMR

Since EMR use snare wire for resection, there is certain limitation for size of resection. Usually, en-bloc resection rate for EMR is acceptable when the lesion size is up to 2 cm. However, en-bloc resection rate drastically decreases as the lesion size getting larger while complication rate is almost stable for any lesion size. En-bloc resection rate is reported to be 66.5% for those lesions with 20-29 mm, 45.4% for those lesions with 30-39 mm and 12.3% for those lesions with more than 40 mm in size.1 Scheduled piecemeal resection is widely accepted for superficial lesions without having submucosal invasion, however, local recurrence rate after multiple piece resection is reported to be 23.3%.2

2. ESD

ESD usually doesn’t have limitation on size of resection, therefore, it has much higher potential to achieve en-bloc resection. En-bloc resection rate is reported to be more than 93% regardless of size of the lesion.1 However, R0 resection rate is slightly worth than en-bloc resection rate since resection margin becomes easily unclear due to burning effect and tearing of fragile colonic mucosa during retrieval of resected specimen. Usually, local recurrence rate is very low even for Rx or R1 cases. Actually overall local recurrence rate after ESD is reported to be 0.2-2% in Japanese case series.3
Follow up after endoscopic resection

Vertical margin positive cases for any kind of cancerous lesion and lateral margin positive cases for submucosal invasive cancer at the invading part should be undergo surgery since actual depth of tumor invasion is unclear and risk of local recurrence as an invasive cancer is extremely high. On the contrary, it is able to follow a clinical course of lateral margin positive cases of mucosal lesions since most of recurrent lesions are detected as tiny mucosal lesions if surveillance after endoscopic resection is properly done. In this case, colonoscopic surveillance should be done every 6 months in order to detect a recurrent lesion before getting larger. It is seldom to have invasive cancer as a locally recurrent lesions but it occasionally happens. Therefore, surveillance should be conducted strictly for Rx and R1 resection cases.

Treatment of recurrent lesions

Small recurrent lesions can be easily treated by endoscopic means. Most of small nodular recurrent lesions less than 5mm can be easily cured by cold biopsy followed by APC. Small recurrent lesions less than 1cm could be removed by EMR if submucosal fibrosis was not severe. And recurrent lesions more than 1cm or any recurrent lesions with severe fibrosis could be removed by ESD although it is technically demanding. In case of recurrent lesions with extremely severe fibrosis, probably local resection with ESD would become very difficult and risky. In this situation, full thickness resection with Ovesco FTRD® system would be useful as a local treatment option. Since margin free en-bloc resection is desirable for any kind of cancerous lesions, treatment option should be selected according to actual situation of recurrent lesions.

Conclusions

Vertical margin positive cases usually requires additional surgical treatment. And lateral margin positive cases could be followed its clinical course since most of recurrent lesions detected as tiny mucosal lesions. Treatment option for recurrent lesions should be selected according to their clinical conditions.

References