Resect and Discard Policy Reviewed from Optical Diagnosis

Hiroshi Kashida M.D., PhD.
Department of Gastroenterology, Kinki University Faculty of Medicine, Osaka-sayama, Japan

Introduction

Nowadays “resect and discard” policy is becoming more and more popular, but there are some potential risk associated with this issue. First of all, correct endoscopic diagnosis is the prerequisite to discard the tissue sample after resecting a lesion. Is it really possible without the help of magnification? Secondly it might be difficult to confirm the completeness of resection without the histological evidence. Thirdly diminutive adenomas equal to or less than 5 mm in diameter have been often left without being removed in Japan. If it is unnecessary to histologically examine diminutive adenomas, is it really necessary to remove them in the first place?

What kind of method are available for the optical diagnosis, and how precise can they be?

1. Chromoendoscopy

Most frequently utilized dye is indigocarmine. It is well recognized that chromoendoscopy is very useful for delineating the boundary of a lesion, and for visualizing its bumps and dents, especially depressions. If a high-definition endoscopy is used, even pit patterns can be observed to some extent. However in order to detect a small area of focal cancer within an adenoma, careful examination using a magnifying scope is necessary. The diagnostic accuracy of chromoendoscopy combined with zoom is reported to be around 95%.

2. Optical/digital method of image enhanced endoscopy

Recently various image-enhancing methods including NBI, FICE, BLI and i-scan are becoming popular. These enable easy differential diagnosis between adenomatous lesions and hyperplastic polyps even without magnification. However in order to obtain a detailed information about the microvascular pattern of the lesion, magnification is required. The diagnostic accuracy of magnified NBI is reported to be slightly lower than that of magnified chromoendoscopy.

3. Ultra-high magnification endoscopy

Confocal laser endomicroscopy and endocytoscopy can magnify the view 500-1000 times and provide the im-
ages virtually identical to the microscopic view of the histopathological specimen. These tools of optical pathology can enable the “resect and discard” policy be realistic. However the equipment is very expensive and would easily exceed the expenses for the pathological diagnosis of the resected specimen.

**Cases difficult to correctly predict the histology**

There are some cases where the lesion looks as if it is just a diminutive benign adenoma but actually an invasive cancer. In other cases it is sometimes difficult to recognize the true boundary of the lesion. Such cases might be improperly diagnosed, resected and discarded without the help of magnified IEE.

**Conclusions**

Now we have good tools for optical diagnosis of colorectal polyps and they enable very precise prediction of the histology. In that sense resect and discard policy might become a reality. However, enough education of the endoscopists concerning the optical diagnosis of the colorectal polyps are the prerequisite. Moreover the diagnostic accuracy would not be good enough without magnified views. Good techniques are also required in order to remove the lesions with a free margin.

**References**