Introduction

The diagnostic methods for a colorectal neoplasm include fecal occult blood, barium enema, colonoscopy, CT-colonography, and tumor marker. Furthermore, magnifying endoscopy, endoscopic ultrasonography, image-enhanced endoscopy (IEE) is available for close examination.

Advances in endoscopic imaging procedures which are IEE have dramatically altered ability to visualize mucosal lesions in the gastrointestinal tract. IEE includes various means of enhancing contrast during endoscopy using dye, optical, and/or electronic methods. IEE divided into dye-based and equipment-based IEE.1 The former is usually called chromoscopy. Our center has been used chromoscopy with crystal violet, indigocarmine until recently because of its some advantage than equipment-based IEE.

Image-enhanced endoscopy (IEE)

Chromoscopy has been studied for distinguish adenoma from hyperplastic polyps. Diagnostic accuracy of chromoscopy was excellent.23 Kudo et al classified the pit pattern into 5 categories (type I-V).4 Types I and II correspond to non-neoplastic polyps, whereas types III, IV and V correspond to adenoma or carcinoma. Furthermore, they showed that neoplasms with the type V pattern have a high risk of submucosal invasion which is a contraindication for endoscopic treatment. 4-6 Wada et al. have reported that the vascular structures of submucosal invasive carcinoma are irregular, and that they cannot be classified by the type of blood vessel.7 Depending on vascular structural findings, the sensitivity and specificity of the diagnosis of submucosal invasive cancer were 100% and 95.8%, respectively. Recently worldwide experts gathered together for making simple and easy classification system and NICE (NBI international colorectal endoscopic classification) was developed. Several studies have confirmed that the NICE classification is valid for prediction of deep submucosal invasive carcinoma (NICE2 and NICE3).

Endoscopic Ultrasonography (EUS)

EUS is used to estimate the depth of colorectal cancer (CRC) invasion. Many studies have shown that the ac-
accuracy of EUS for invasion depth of CRC is 66%-88%.

Conclusions

Advances in endoscopic imaging procedures and EUS are useful for predicting the depth of invasion colon cancer.

References