Utility of autofluorescence imaging videoendoscopy in screening for Barrett’s esophagus

Barrett’s esophagus is a gastroesophageal reflux disease (GERD)-associated disorder and is considered a premalignant lesion for Barrett’s cancer. Therefore, diagnosis of Barrett’s esophagus is very important [1, 2]. However, advanced skills are required to diagnose Barrett’s esophagus using white light imaging (WLI) endoscopy. Recently, the AFI (autofluorescence imaging) videoendoscopy system (Olympus, Tokyo, Japan) has been developed for the diagnosis of hyperplasia and inflammation in the gastrointestinal tract.

We investigated the differences between Barrett’s esophagus and the normal esophagus using WLI and AFI. Five cases of normal esophagus and 17 patients with Barrett’s esophagus were examined using WLI and AFI. Esophageal mucosa recognized as normal on WLI appeared green on AFI. Esophageal mucosa recognized as Barrett’s esophagus on WLI also appeared green on AFI (Fig. 1). The gastric mucosa, which was visualized at the anal end of Barrett’s esophagus by WLI, appeared gray on AFI. Our findings indicate that Barrett’s esophagus can be easily distinguished from normal esophagus on AFI. Therefore, we consider AFI to be useful in screening for Barrett’s esophagus.

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Department of Gastroenterology, Juntendo University School of Medicine, Tokyo, Japan

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Corresponding author
D. Asaoka
Department of Gastroenterology
Juntendo University School of Medicine
2-1-1 Hongo, Bunkyo-ku
Tokyo 113-8421
Japan
Fax: +81–33–8138862
daisuke@med.juntendo.ac.jp