Endoscopy with i-scan for More Detection of Mucosal Abnormalities in Patients with Reflux Symptoms

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Background/Aims: Patients with gastroesophageal reflux disease are subdivided into non-erosive (NERD) and erosive reflux disease (ERD). The newly available endoscopy with i-scan was adapted detection of mucosal abnormality. The aim of the study was to test the efficacy of endoscopy with i-scan and compare with conventional endoscopy for esophageal mucosal lesion.

Methods: The esophagus mucosal lesion was inspected with conventional endoscopy and endoscopy with i-scan. The mucosal break of esophagus was evaluated through Los Angeles Classification (LA-A, B, C, D) and Minimal change (B, C, D, E, I, and mixed type).

Results: A total of 156 patients were included (male: female=85 : 71, mean age 57.5±13.4 years). The patients with reflux symptoms were 96(62%). Mucosal abnormalities were detected LA-36A, 4B, 1C, 0D, and minimal change 12-B, 8C, 26D, 12E, 11, 1B+C, 5B+D, 3B+I, 1C+D, 5C+E, 1C+H, 0D+E, 3E+I, 0B+D+E, 0C+D+E, 0B+H+I, 0B+E+I with conventional endoscopy. But It was showed LA-37A, 4B, 1C, 0D, Minimal change -14B, 8C, 28D, 15E, 5I, 3B,C, 6B,D, 6B+I, 2C+D, 6C+E, 2C+H, 0D+E, 6E+I, 20B+1D+E, 1C+D+E, 1B+H+I, 2B+E+I in endoscopy with i-scan (k=0.84, p<0.0001). The result also showed more detection of mucosal lesions patients with reflux symptoms (k=0.80, p<0.0001).

Conclusion: Endoscopy with i-scan significantly improves the identification of esophageal mucosal breaks. The i-scan filter helps to identify esophageal reflux-associated lesions.