A Novel Disposable, Transnasal Esophagoscope: A Pilot Trial of Feasibility, Safety and Tolerance

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Background: A novel disposable transnasal esophagoscope, E.G.Scan (IntroMedic Co, Ltd, Seoul, Korea), was developed for the evaluation of esophageal diseases with relieving inconvenience of sterilization, portability, patient monitoring, complications and economic burden by sedation. We conducted this pilot study to assess the feasibility, safety, and tolerance of the first version of the E.G. Scan.

Patients and Methods: Patients with known or suspected esophageal diseases were included between October 2010 and February 2011. The technical capabilities and patient's tolerance were evaluated.

Results: Nasal esophagoscopy was successfully performed in 46 patients. At least 50% of the Z-line was visualized by the E.G. Scan in 38 patients (82.6%). Eighteen erosive esophagitis, 1 Barrett's esophagus, 7 esophageal varices, and 1 esophageal candidiasis were identified. Nasal pain was absent or mild in most of patients, and adverse event was not observed.

Conclusions: E.G.Scan is a feasible, tolerable, and safe tool for the evaluation of esophageal diseases. Further technical improvement of the E.G. Scan would increase the diagnostic usefulness in clinical practice for the future.

Key Words: Esophagoscope; GERD; Esophageal varix