Impact of Sedation on the Evaluation of Esophagogastric Junction during Esophagogastroduodenoscopy

Hye Jin Seo, Eun Soo Kim, Kyung Sik Park, Kwang Bum Cho, Byoung Kuk Jang, Woo Jin Chung and Jae Seok Hwang
Department of Internal Medicine, Keimyung University School of Medicine, Daegu, Korea

Backgrounds/Aim: Important lesions are located around the esophagogastric junction (EGJ). Effect of sedation on EGJ evaluation during esophagogastroduodenoscopy (EGD) has not been elucidated. The aim of this study was to compare territory of observation according to different sedation agents during EGD.

Methods: Data were collected prospectively from consecutive patients who underwent EGD for various reasons. Patients were divided into three groups according to sedation agents; propofol, midazolam, and control (no sedation). EGJ was observed during both insertion and withdrawal of endoscope with minimum air inflation. The extent of EGJ observation territory was classified into 4 grades: excellent, good, fair, and poor. In addition, observation time of EGJ among groups was estimated.

Results: Overall, 103 patients were included in the study [50 (48.5%) males; average age, 58.44±10.3 y]. There were no significant differences in demographic and clinical characteristics among groups. Excellent degree of EGJ observation territory was less achieved in propofol and midazolam group than in control group (27.3%, 28.6% and 91.4%, respectively, p<0.001). There was a significant difference in observation time (sec) of EGJ evaluation among groups (propofol, 20.7±11.7; midazolam, 16.3±7.3; control, 11.6±5.8; p<0.001). Multivariate analysis adjusting other covariates including diabetes mellitus and hip circumference showed that sedation use was the only independent risk factor of impaired EGJ evaluation (Odds ratio, 25; 95% CI, 6.21-100; p<0.001). Hiccup was more frequently observed in midazolam group while hypoxia (SaO2 <90%) tended to be more often noticed in propofol group.

Conclusion: Sedation during EGD gives a negative impact on GEJ evaluation (WHO International Clinical Trials Registry Platform, KCT0000060).

Key Word: Eophagogastric junction