Efficacy of Bispectral Index Monitoring for Midazolam and Meperidine Induced Sedation during ESD

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Background and Study Aims: There is no data about efficacy of midazolam and meperidine (M/M) induced sedation with BIS monitoring during lengthy ESD procedure. This study was to evaluate whether M/M induced sedation with BIS monitoring could improve the satisfaction and reduce the dose of M/M during ESD.

Patients and Methods: From Sep 2009 to Jan 2010, 56 patients were prospectively enrolled and randomly assigned to BIS group (n=28) and non-BIS group (n=28). The satisfaction scores of the patients and endoscopist were assessed with the visual analogue scale (scale of 0~100) after the ESD.

Results: There were no significant differences between two groups in mean satisfaction scores of patients (92.3±16.3 vs. 93.3±15.5, p=0.53) and endoscopist (83.1±15.4 vs. 80.0±16.7, p=0.52). Although there was no difference of the mean meperidine dose (62.5±27.6 vs. 51.0±17.3, p=0.18) between two groups, the mean dose of midazolam in non-BIS group was lower than in the BIS group (6.8±2.0 vs. 5.4±2.1, p=0.01).

Conclusions: Our results show there is no additional role of BIS monitoring for M/M induced sedation during ESD.