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Conscious sedation: A dying practice?

Palaniappan Manickam, Ziad Kanaan, Khalid Zakaria

Palaniappan Manickam, Division of Gastroenterology, Department of the Internal Medicine, Oakland University William Beaumont School of Medicine, Royal Oak, MI 48037, United States
Ziad Kanaan, Khalid Zakaria, Department of Internal Medicine, Wayne State University, Rochester, MI 48307, United States
Author contributions: All authors contributed equally to this work.
Correspondence to: Palaniappan Manickam, MD, MPH, Division of Gastroenterology, Department of the Internal Medicine, Oakland University William Beaumont School of Medicine, North Squirrel Road, Royal Oak, MI 48037, United States. palaniappan.manickam@beaumont.edu
Telephone: +1-248-5511227 Fax: +1-248-5517581
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Abstract

Sedation practices vary according to countries with different health system regulations, the procedures done, and local circumstances. Interestingly, differences in the setting in which the practice of gastroenterology and endoscopy takes place (university-based *vs* academic practice) as well as other systematic practice differences influence the attitude of endoscopists concerning sedation practices. Conscious sedation using midazolam and opioids is the current standard method of sedation in diagnostic and therapeutic endoscopy. Interestingly, propofol is a commonly preferred sedation method by endoscopists due to higher satisfaction rates along with its short half-life and thus lower risk of hepatic encephalopathy. On the other hand, midazolam is the benzodiazepine of choice because of its shorter duration of action and better pharmacokinetic profile compared with diazepam. The administration of sedation under the supervision of a properly trained endoscopist could become the standard practice and the urgent development of an updated international consensus regarding the use of sedative agents like propofol is needed.

Key words: Sedation; Conscious; Endoscopy; Propofol; Fentanyl; Meperidine

Core tip: Even though the most recent "Multisociety sedation curriculum for gastrointestinal endoscopy" guidelines addressed the upper-limit range of Midazolam for proper sedation in prolonged endoscopic procedures, there are no clear-cut guidelines on the upper limit of Fentanyl dosing, especially with the risk of rigid chest syndrome and drug accumulation in skeletal muscle at high doses. Additionally, we also raised the question of whether Propofol or other agents used for deep sedation should be a routine indication for patients with chronic opioid use.

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TO THE EDITOR

While the controversy regarding the administration of sedation during gastrointestinal (GI) endoscopy continues, Triantafillidis *et al*[1] in their recent article in January 2013, provided a concise and thorough overview of the current knowledge regarding this topic. In summary, the authors concluded that the administration of sedation under the supervision of a properly trained endoscopist could become the standard practice and stressed urgent development of an updated international consensus regarding the use of sedative agents, especially propofol[1]. We would like to share some comments with the authors.

In a short survey of about sedative use in GI endoscopies conducted among thirty endoscopists at our large community-based hospital setting, Fentanyl/Midazolam and Meperidine/Midazolam are the most commonly used

sedatives for elective outpatient procedures in 63% and 36% of instances respectively. Usually, patients do not require more than 6 mg of Midazolam and 200 μg of Fentanyl to achieve moderate sedation. In a minority of patients who require more than usual dose of sedatives, 73% of the surveyed endoscopists are hesitant to go beyond the above-mentioned limits for the fear of side effects, leading to either inadequate evaluation or premature termination of the procedure. According to the recent "Multisociety sedation curriculum for gastrointestinal endoscopy" guidelines[2], the dose of Midazolam could be increased up to 6 mg and even more for prolonged endoscopic procedures[2]. However, there are no clear-cut guidelines on the upper limit of Fentanyl dosing and the risk of rigid chest syndrome[3]. During regular outpatient colonoscopies, few patients would not achieve moderate sedation despite receiving more than doses mentioned above. In such situations, 57% of the physicians responded that they would terminate the procedure and reschedule it again and 43% noted that they would proceed with increasing doses of sedatives to achieve moderate sedation. As Fentanyl can cause delayed side effects through accumulation in skeletal muscle, increasing the dose might be a concern in high-risk patients.

The second issue is with people who are chronic narcotic users. Ninety percent of the surveyed endoscopists responded that they would prefer Propofol administration in patients with chronic opioid use due to high tolerance observed in these patients. Propofol administration is usually by the anesthesia service thus adding to the patient's costs. This leads to a clinical question whether Propofol or other agents used for deep sedation should be a routine indication for patients with chronic opioid use.

Overall, this study provided a concise overview of the current knowledge and issues concerning sedation during digestive endoscopy and the authors are to be commended on their work.

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