

Editorial

Propofol Use for Sedation in Endoscopic Procedures: Too Many Physicians in the Room?

In the previous issue of JGAG, Heron et al. published a single-centre retrospective study of close to 5000 patients who underwent endoscopic procedures with moderate/conscious sedation using nonanaesthesiologist-administered propofol sedation, as an adjunct agent. Propofol was administered by gastroenterologists certified in Advanced Cardiovascular Life Support (ACLS). This is also commonly known as balanced propofol sedation (1).

In accordance to other North American professional gastroenterology and endoscopy societies, the Canadian Association of Gastroenterology published a position statement in 2008 highlighting the safety of endoscopist-administered propofol for conscious sedation. Propofol provides quicker onset of action and shorter recovery time than conventional sedation (2). However, this statement recommended formal ACLS certification and further education on the use of propofol when contemplating the practice. The suggested single agent loading dose was 40 to 50 mg followed by smaller bolus loads of 10 to 20 mg. Adding small doses of benzodiazepines and/or opiates will lower the required dose of propofol to achieve moderate rather than deep sedation (3,4). Routine presence of anaesthesiologists for endoscopic procedures was not suggested. One should note that the average dose of 34.5 ± 20.8 mg for propofol used in this study, is considerably less than its standard dose as a single agent for deep sedation. This is very likely due to a synergistic effect when added to a narcotic and a benzodiazepine.

Despite these recommendations, the current most widely used regimen for moderate sedation in Canada is a combination of a narcotic analgesic and a benzodiazepine, in the absence of a contraindication. Propofol, occasionally in combination with an analgesic or a benzodiazepine, is the most commonly used agent for deep sedation in Canada. It is most commonly administered by an anaesthesiologist, who can also provide airway support.

In this study, the safety profile of propofol, as an added agent to standard dual moderate sedation regimen, is

established in a relatively large population. The absence of any serious complications, including death or need for mechanical ventilation, is reassuring given the large sample size of the study and the variety of included procedures. In a larger previous multicenter retrospective study of more than 36,000 endoscopies, episodes of apnea or other airway compromise requiring assisted ventilation occurred in less than 0.2% and there was no endotracheal intubation, permanent injury or death (5). Moreover, two randomized controlled trials compared endoscopist-administered mono-propofol sedation with different combinations of moderate sedations regimens (6,7). Patients receiving propofol showed significantly shorter recovery time with no significant differences in major complications, physician satisfaction, or patient-reported pain or discomfort. Patient satisfaction across all controlled trials was also better with mono-propofol sedation.

Adding propofol may also enhance cost-effectiveness and patient safety, although this will require further studies. While the safety profile of propofol as single or adjunct agent has been demonstrated in several studies, endoscopists should still personalize their care and keep in mind the importance of patient selection (including ASA classification), informed consent, availability of trained personnel, physician comfort level and required training before deciding which agent(s) and dose to use. Trained individuals should be present during the procedure to monitor airways and physiologic parameters. Overall, nonanaesthesiologist-administered propofol sedation might improve patient comfort, procedural efficiency, and/or successful procedure completion. However, local regulations regarding administration of propofol should be sought and followed.

Last but not least, caution should be exercised when an endoscopic procedure is performed in an out-of-hospital facility, noting that the study by Heron et al. was conducted in a hospital setting. Propofol as single deep sedation agent, administered by an anaesthesiologist, should be reserved for

selected patients who may not be appropriate candidates for nonanesthesiologist-administered sedation.

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Conflicts of Interest

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