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Scopolamine and Sugammadex: Gateway To Litigation In Absence of Patient Education

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Corresponding Author:
Dr. Deepak Gupta,
Anesthesiologist, Wayne State University, 48201 - United States of America

Submitting Author:
Dr. Deepak Gupta,
Anesthesiologist, Wayne State University, 48201 - United States of America

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Author(s): Gupta D

My opinion

As an anesthesiologist, my personal experience with scopolamine transdermal therapeutic system (TTS) patch as a counter-measure against postoperative nausea and vomiting (PONV) and sugammadex as a rapid reversal agent against neuromuscular blockade is limited. Still, I wonder if these medications can be gateway to litigation when patient education about them may NOT have been ensured.

Scopolamine is often portrayed in mass media as "zombie" drug inducing hyper-suggestibility among its users. Even the United States (U.S.) Department of State (Bureau of Diplomatic Security) has warned in its travel advisory for citizens visiting Colombia about the crime threats secondary to scopolamine's effects lasting greater than 24 hours after its accidental ingestion or inhalation.[1] Although scopolamine as TTS patch is safer with insignificant incidence of confusion probably due to onset of action being 4 hours and peak plasma levels reaching in 24 hours to deliver total dose of 1mg scopolamine over 72 hours, the half life of 9.5 hours may point towards its lasting effects as scopolamine's withdrawal symptoms unravel only 24 hours after removal of the patch.[2] Essentially, the anesthesia provider teams must ensure thorough patient education regarding precautions to follow when choosing scopolamine TTS patch as a component of multimodal strategy to counter PONV.[3] The anesthesia provider teams and the patients can comprehensively discuss the possibility of the cognition impairment that may qualitatively (in unknown quantities) effect their abilities to consent for the surgical procedures if scopolamine TTS patch is preemptively applied more than 4 hours prior to consenting for the procedure. The discussions can also include the potential legal incompetence for yet-to-be-defined periods in case the patients were expected to be sworn in or to sign legal documents with scopolamine TTS patch in situ and for 24 hours thereafter removal of the patch.

Sugammadex is a good addition to anesthesia provider teams' armamentarium, especially when the return of normalcy in neuromuscular junction transmission is objectively targeted at train-of-four ratios >0.9 that has become a major component of continuing medical education (CME) programs to make anesthesia practice of neuromuscular blockade safer without being cost-prohibitive for the patients. Interestingly, these CME programs' abundance and popularity may have coincided with residual neuromuscular blockade concerns' solution (sugammadex) becoming readily available for peri-operative use after U.S. Food and Drug Administration (FDA) approval in December 2015.[4] However, during these CME programs, the documented interaction of sugammadex with hormonal contraceptives cannot be overlooked as a mere footnote information for the anesthesia care providers.[5] Irrespective of whether sugammadex administration becomes standard practice for all patients' reversals from rocuronium-vecuronium induced neuromuscular blockade or its administration is limited to the rescue reversals after unintentional prolonged-residual neuromuscular blockade, the anesthesia provider teams should always educate their female patients about the need for alternate contraceptive methods' use for seven days post-sugammadex administration so as to counter the decreased efficacy of hormonal contraceptive methods as caused by sugammadex.[6] This information can be shared with the female patients preoperatively if the anesthesia departments use sugammadex as default reversal agent among all patients, or postoperatively if the anesthesia departments use sugammadex only as a rescue reversal agent in rare clinical scenarios. Interestingly, it remains to be seen in the future whether peri-menopausal and post-menopausal patients on hormonal replacement therapy report sudden flaring up of menopausal symptoms postoperatively for seven days after sugammadex administration. Â Â Â Â Â Â Â

Summarily, to ensure patient safety and to avoid potential litigation when the non-quantified duration of legal incompetence being possible around scopolamine TTS patch-in-situ and the unplanned pregnancies being possible after sugammadex catch patients unawares, educating patients about these medications and their effects is of utmost importance for anesthesia provider teams peri-operatively.

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