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Propofol: Is It Really Worse than Midazolam in Medical Thoracoscopy?

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The group of pneumologists in Basel [1] has to be congratulated for reporting their results on the first randomized controlled trial focusing on procedural analgesedation in medical thoracoscopy. Contrasting with previous results in flexible bronchoscopy [2], gastroscopy [3] and colonoscopy [4], Grendelmeier et al. [1] found that conscious sedation with propofol was more risky than with midazolam given the higher incidence of hypoxemia (pulsed arterial oxygen saturation <90%: 27 vs. 4%) and hypotensive episodes (systolic blood pressure <90 mm Hg: 82 vs. 40%). These results also contradict the excellent safety profile that we reported in medical thoracoscopy when bispectral index monitoring, a clinical scale of sedation depth and end-tidal capnography were used by nonanesthetist nurses to more precisely titrate the intravenous administration of propofol and opiates [5]. In this cohort prospective study, the patient population was at a lower risk, as evidenced by the American Society Association physical status classification (ASA 3 and 4, 13 vs. 91% in the Basel study), a standardized procedural sedation and analgesia protocol was applied and the procedure lasted a shorter time (28 vs. 38 min, Basel study) possibly related to the operators' experience (2 vs. 4 consultants and 8 fellows in the Basel study). Importantly, all nonanesthetist health care professionals received formal training by anesthesiologists, including lectures, workshops and supervised clinical sessions. Using this individualized approach in targeting an optimal level of sedation, a lower median dose of propofol was administered (4.6 vs. 8.2 mg/min compared to the Basel study), resulting in a low incidence of hemodynamic and respiratory disturbances that has been confirmed in other studies using bispectral index monitored sedation [2, 3, 6].

If a similar goal-directed approach had been applied in the Basel study [1], the administration of lower doses of propofol would (likely) have been associated with less cardiopulmonary compromise, particularly among the high-risk patients. Over recent years, propofol has emerged as a 'near ideal' sedative drug with dose-dependent hypnotic effects, rapid onset and a fast recovery profile [7]. So, please, do not throw the baby out with the bath water.

More studies in collaboration with anesthesiologists might benefit to our patients making procedural sedation and analgesia safer, comfortable and cost-effective.

Financial Disclosure and Conflicts of Interest

The authors have no conflicts of interest to declare.

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