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Antiemetics sparring modality based on Adequacy of Anaesthesia guidance combined with different preanalgesia techniques for head and neck surgeries – summary from four most recent studies.

Background/Objectives

Postoperative nausea and vomiting (PONV) still keep on plaguing postoperative period, impairing quality of recovery reflected in patients' satisfaction, prolong hospital stay or lead to unexpected re-admissions, and impair economic frugality of provided medical service. PONV is mainly induced by intraoperative rescue opioid analgesia (IROA), anaesthetics and technique of operation. Adequacy of Anesthesia (AoA) guidance optimizes intraoperative IROA titration and dose of hypnotics. Preemptive analgesia (PA) using cyclooxygenase-3 (COX-3) inhibitors or local anaesthetics for regional blocks reduce the IROA dose, both sparr the use of antiemetics, that are not free from potential side effects observed in even healthy volunteers. In the recent studies we assessed the impact of AoA guidance of different anaesthesia modalities, on the rate of incidence of PONV, in patients undergoing vitreoretinal surgeries, eversion carotid endarterectomy (CEA)and endoscopic sinus surgeries (ESS)as secondary outcome measures.

Methods

A total of 165 patients scheduled for VRS were randomly assigned to receive AoA-guided GA combined with IPA at a single dose of 1 g of paracetamol (acetaminophen) or 2.5 g of metamizole or both (Clinical Trial Registry SilesianMUKOAiIT7, NCT03389243); 185 patients undergoing VRS - AoA-guided GA in addition with PA using paracetamol (P group) infusion in a single dose of 1 gram. or peribulbar block (PBB) using either 1% ropivacaine (RPV group) or 0,5% bupivacaine (BPV group) or 1:1 mixture of 0,5% bupivacaine/2% lidocaine (BL group). (Clinical Trial Registry SilesianMUKOAiIT8, NCT03413371), 31 patients received AoA-guided total intravenous anaesthesia (TIVA) for ESS with IPA using metamizole (SilesianMUKOAiIT2, KNW/0022/KB1/50/16); 114 patients received cervical plexus block with AoA-guided IROA for CEA (SilesianMUKOAiIT4; NCT04500249;), either with or without local infiltration of carotid sheath.

Results

AoA guidance of different anaesthesia techniques resulted in incidence of PONV in 4-6,5 % of all the patients undergoing different head and neck surgeries in the four recent studies.

Conclusions

We recommend AoA guidance of different anaesthesia modalities to reduce the rate of incidence of PONV and thus avoid antiemetics-related side effects, despite the fact that according to Fourth Consensus Guidelines for the Management of PONV 2020, the basis for every adult patient should be a standard prophylaxis with two antiemetics and in high risk patients, a third and potentially a fourth antiemetic prophylaxis with a different mechanism of action is recommended.

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Biography

Michał J. Stasiowski is affiliated with the Department of Anaesthesiology and Intensive Care at the 5th Regional Hospital in Sosnowiec, Poland. He also collaborates with the Chair and Department of Emergency Medicine at the Faculty of Medical Sciences in Zabrze, Medical University of Silesia, Katowice. His clinical and academic interests include anaesthesiology, critical care, and emergency medicine, with a focus on improving patient outcomes through evidence-based practices and interdisciplinary collaboration.

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