Editorial

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Pain relief is not optional - Choose wisely

Pain is a ubiquitous sign which is a result of various etiologies and which needs to be addressed by every means available to a physician. Pain is a manifestation of various physiological, pathological, and other insults which needs urgent relief. Agents used for pain relief can be associated with side effects related to the drug by itself, class effects (like non-steroidal anti-inflammatory drugs, NSAIDS) or drug–drug interactions, respectively. Whatever be the different clinical settings of patient care, pain must be relieved, with due regard for concerns raised from use of pharmacological agents and also techniques feasible in many circumstances during anesthesia.

The current issue of the Indian Journal of Anaesthesia (IJA) carries articles dealing with pain management in various settings.

In their letter to the editor, opioids during coronary interventions – need reconsideration? Raut and Hanjoora highlight the renewed interest in the effects of opioids when co-administered with anti-platelet medications, impairing their intestinal absorption, in acute coronary syndromes, especially non-ST-segment-elevation myocardial infarction.[1] Patients receiving clopidogrel and morphine showed higher rates of ischemic events at Day 4 (adjusted odds ratio [OR], 1.40; $P = 0.026$) and higher rates of death or myocardial infarction at 30 days. In a summary of the article, analysis being *post hoc* need for additional studies have been suggested. Have we already lost patients unnecessarily? It is time to pay heed.

The long held mnemonic MONA; morphine, oxygen, nitrates, and aspirin has been redefined. This issue has been flagged earlier too, with impaired gastric motility due to opioid co-administration, being the main interaction. With the availability of parenteral anti platelet agents like cangrelor or tirofiban and low molecular weight heparins for rapid onset of action to prevent thrombotic events, the use of beta blockers and nitroglycerin for optimizing ischemia, the need for analgesia has become modified. Alternatives to opioids in myocardial infarction include intravenous paracetamol (1 gm) and aspirin (300 mg) which some patients may already be receiving along with H2 blockers or proton pump inhibitors, magnesium as an opioid sparing drug with due caution, gabapentinoids, NSAIDs like naproxen with a better cardiovascular safety profile, lidocaine patches as an off-label use and N-methyl-D-aspartate antagonists viz low dose ketamine infusion, and even the time tested route of inhaled nitrous oxide.[2]

Sharma *et al*. have compared the analgesic efficacy of intravenous vs. intrathecally administered dexmedetomidine in below knee surgeries conducted under sub-arachnoid block (SAB) with hyperbaric bupivacaine and conclude that intrathecal route is more efficacious for dexmedetomidine as an adjuvant.[3] Adjuvants for SAB have seen many molecules being studied with opioids, alpha agonists, and others. Dexmedetomidine, though not FDA approved, is safely given by sub-arachnoid route and with other locoregional techniques, whereas concomitant to SAB, intravenous administration is a tradeoff between dose and duration; the dose determining side effects and duration, with a ceiling effect at 0.5 mcg/kg intravenously in prolonging post spinal analgesia being reiterated even in recent clinical studies.[4] The mechanisms explaining the effects are partly local perineural with hyperpolarization of sensory C fibers, to some degree motor A fibers and direct central effects on locus coeruleus.[5] Molecules whose safety is proven or have limited side effects should be the choice of clinicians.

Bakshi *et al*. performed a prospective audit of pain management following emergency laparotomies in cancer patients in a tertiary care cancer hospital and observed that regional techniques are less preferred in such situations for pain management and hence opioids tend to be the mainstay.[6] Analysis of data revealed that most surgeries were performed after normal working hours and patients were predominantly American Society of Anesthesiologists (ASA), class I and II; two anesthesiologists were present for most cases, 25% patients had hemodynamic instability and there was no correlation between the experience in regional technique and surgical duration respectively. A total of 75% of cases were conducted by anesthesiologists confident/expert in thoracic epidural insertion as per the criteria used for categorising skills of anaesthesiologist involved. Airway concerns were listed along with hemodynamic instability and coagulopathy accounting to only 15% of patients determining choice of anesthesia but the data does not reveal any details of airway related issues nor any haemodynamic manipulations or advanced monitoring in these cases. In total less than 9% patients received the benefit of a contemplated epidural. Pain with movement was moderate to severe in more than 50% patients at 24 h with a median satisfaction level for pain relief of 5 [range 4-7] [on a scale of 1–10 while those who got the benefit of an epidural/regional had an obvious high median score of 8 [range 6.5–8.25]. In 58% of patients, a variety of non-opioid medications were offered in addition to oral morphine, including transdermal patches, tramadol, paracetamol, tapentadol, and diclofenac which probably emphasises the large choice available for anesthesiologists when pain relief is considered in such settings.

Prejudice and/or mindset change need to be inculcated where pain, the fifth vital sign, should be managed appropriately irrespective of the time of anesthetic being administered. For laparotomies, the standard of care, unless American Society of Regional Anesthesia and Pain Medicine, ASRA guidelines preclude the same, should include epidural analgesia used perioperatively, because Enhanced Recovery After Surgery, ERAS protocols have been successfully implemented in the emergent setting also.[7] Opioid-based anesthesia as evidenced in this audit is a surprise choice. Protocols and changes in management strategies to include regional techniques, albeit ultrasound-guided abdominal wall blocks should also be considered with a sizeable number of residents in training being the frontline in managing patients in the emergent settings.

Opioid-free anesthesia combining many opioid sparing strategies is now an emerging process involving loco regional techniques and non-opioid multi modal analgesia. In a recent review article Thota *et al*. discuss the opioid crisis specifically in relation to oncoanesthesia in the context of immunosuppression following anesthesia and the lack of compelling evidence thereof, the need to reduce chronic opioid use with a change in prescription practices post discharge and a call by the ASA for reducing opioid exposure in the perioperative/surgical setting. They conclude that multimodal opioid sparing strategies should be initiated in each patient undergoing surgery.[8]

It should be the endeavor of every physician to provide pain relief in any given clinical setting and all options available should be explored in the context of patient safety and comfort.

Ramachandran Gopinath, Sangineni K S Dhanalakshmi, Kiran Tejavath, Polapally Venu

Department of Anaesthesia and Intensive Care, ESIC Medical College Hospital, Sanathnagar, Hyderabad, Telangana, India.
E-mail: gopi59@hotmail.com

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REFERENCES

1. Raut MS, Hanjoora VM. Opioids during coronary interventions - need reconsideration? Indian J Anaesth 2020;64:527-8.
2. O'leary U, Puglia C, Friehling TD, Kowey PR. Nitrous Oxide anesthesia in patients with ischemic chest discomfort: Effect on beta-endorphins. J Clin Pharmacol 1987;427:957-61.
3. Sharma I, Rana S, Choudhary B, Dhiman T, Sharma S, Kumar M. Comparative analgesic efficacy of intravenous vsintrathecaldexmedetomidine as an adjuvant to hyperbaric bupivacaine in subarachnoid block for below knee orthopaedic surgery. Indian J Anaesth 2020;64:463-9.
4. Upadhyay SP, Samanth U, Tellicherry S, Mallick P. Role of intravenous dexmedetomidine in prolonging postoperative analgesia and quality of block following spinal anaesthesia. A systematic review and update. J Pain Relief 2015;4:175.
5. Weerink MAS, Struys MMRF, Hannivoort LN, Barends CRM, Absalom AR, Colin P. Clinical pharmacokinetics and pharmacodynamics of dexmedetomidine. Clin Pharmacokinet 2017;56:893-913.
6. Bakshi SG, Gawri A, Panigrahi AR. Audit of pain management following emergency laparotomies in cancer patients: A prospective observational study from an Indian tertiary care hospital. Indian J Anaesth 2020;64:470-6.

7. Hajibandeh S, Hajibandeh S, Bill V, Satyadas T. Meta-analysis of enhanced recovery after surgery (ERAS) protocols in emergency abdominal surgery. World J Surg 2020;44:1336-48.
8. Thota RS, Ramkiran S, Garg R, Goswami J, Baxi V, Thomas M. Opioid free onco-anesthesia: Is it time to convict opioids? A systematic review of literature. J Anaesthesiol Clin Pharmacol 2019;35:441-52.

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