



# Exploring opioid-free and opioid-sparing anesthesia in oral and maxillofacial surgery

Jingping Wang

Department of Anesthesia, Critical Care and Pain Medicine, Massachusetts General Hospital, Boston, MA, USA

Correspondence to: Jingping Wang, MD, PhD. Department of Anesthesia, Critical Care and Pain Medicine, Massachusetts General Hospital, Boston, MA, USA. Email: [jwang23@mgh.harvard.edu](mailto:jwang23@mgh.harvard.edu).

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Pain management has always been a critical aspect of oral and maxillofacial (OMF) surgery. Traditionally, opioids have been the primary method of pain control in anesthesia. However, with growing concerns about the opioid epidemic, the use of opioids in OMF surgery has become a topic of significant interest and discussion. The special series “Opioid-free Anesthesia and Opioid-sparing Anesthesia in OMF Surgery” is a timely and important initiative that explores alternative approaches to pain management in OMF surgery.

There is some controversy surrounding the efficacy of opioid-free and opioid-sparing anesthesia (1). The articles in this special series provide valuable insights into the efficacy of opioid-free and opioid-sparing anesthesia in OMF surgery and discuss the benefits and challenges of these techniques. The studies address different aspects of pain management, including the use of nitrous oxide, paravertebral nerve blockade, nonsteroidal anti-inflammatory drugs (NSAIDs), and methadone. By exploring these new approaches, we aim to reduce or eliminate the use of opioids, and may be able to develop safer and more effective methods of anesthesia and pain management, while reducing the risk of opioid addiction and overdose in OMF surgery.

Opioid-free anesthesia is a technique that does not use opioids for pain management. Instead, it uses other types of drugs such as local anesthetics, NSAIDs, and ketamine. The use of local anesthetics and NSAIDs is not new in OMF surgeries, but the use of ketamine as an alternative to opioids is gaining popularity. Ketamine is a dissociative anesthetic that produces a state of unconsciousness, analgesia, and amnesia. It has been used in general surgery

for many years, but its use as the anesthetic agent in OMF surgeries is relatively new.

One of the main benefits of opioid-free anesthesia is the reduced risk of opioid addiction and overdose. Opioids are highly addictive, and patients who are prescribed opioids for pain management after surgery are at risk of becoming addicted. In addition, opioids can cause respiratory depression, which can lead to overdose and death. By using opioid-free anesthesia, the risk of opioid addiction and overdose is significantly reduced, especially in the context of OMF surgeries.

Another benefit of opioid-free anesthesia is the reduced other side effects. Opioids can cause nausea, vomiting, constipation, and sedation. By using other types of drugs for pain management, these side effects can be minimized or eliminated. This can improve patient comfort and satisfaction after surgery.

Opioid-sparing anesthesia is another technique that reduces the use of opioids for pain management. It uses a combination of opioids and other drugs such as local anesthetics, NSAIDs, and acetaminophen. The goal is to use the minimum amount of opioids necessary to manage pain. This can reduce the risk of opioid addiction and overdose while still providing effective pain management.

One of the main challenges of opioid-sparing anesthesia is determining the appropriate dose of opioids. The amount of opioids needed to manage pain can vary greatly from patient to patient. The dose must be carefully monitored to ensure that it is sufficient to manage pain without causing respiratory depression (2).

Another challenge of opioid-sparing anesthesia is the

potential for drug interactions. Some drugs can interact with opioids and increase the risk of side effects. Careful monitoring of drug interactions is necessary to ensure patient safety.

In addition to the benefits and challenges of opioid-free and opioid-sparing anesthesia, there are also economic considerations. Opioids are relatively inexpensive compared to other drugs used for pain management. The use of opioid-free and opioid-sparing anesthesia may increase the cost of surgery. However, the cost of treating opioid addiction and overdose far outweighs the cost of using alternative pain management techniques.

The articles in this special series highlight the increasing interest in alternative approaches to pain management in OMF surgery and the potential of technology to improve medical education. We hope this series inspires further research and discussion on pain management in OMF surgery and contributes to the development of safer and more effective approaches to anesthesia.

In conclusion, the use of opioid-free and opioid-sparing anesthesia in OMS has many benefits. It reduces the risk of opioid addiction and overdose, minimizes side effects, and provides effective pain management. However, there are also challenges, such as determining the appropriate dose of opioids and monitoring for drug interactions. Despite these challenges, the use of opioid-free and opioid-sparing anesthesia is an important step in reducing the impact of the opioid epidemic on our society. It is important for OMF surgery practitioners to carefully consider these techniques when managing pain in their patients.

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