

Sublingual Sufentanil: an option for pre-hospital pain management in trauma patients

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Dear Editor,

We eagerly read the recent article published in the Journal of Clinical Medicine entitled “The Pain Management of Trauma Patients in the Emergency Department” by Fabbri *et al.*¹ The study determined that insufficient analgesia is due to a lack of public health confidence in the use of opioids. As described by the authors,¹ only 3% of patients received the right assessment of pain and its related management, despite 77% of patients experiencing severe pain. Furthermore, this reluctance could be attributed to legal barriers to prescribing, increased monitoring needs, and fears that analgesia masks other trauma symptoms.

To supply this reluctance, a recent systematic review, published in the American Journal of Emergency Medicine,² highlighted the importance of the use of Sufentanil for the management of adults with acute pain in the emergency department and pre-hospitals. Sufentanil is a lipophilic, synthetic opioid that is selective for the μ -opioid receptor and believed to have one of the highest therapeutic indices of all available opioids and it could be delivered by multiple routes, such as intravenous, intrathecal, and sublingual. However, a lack of evidence is highlighted in these systematic

reviews where only 4 articles were included,³⁻⁶ with a great bias of heterogeneity. Although Sufentanil was found to provide acute pain relief that was superior to placebo and not inferior to IV morphine,⁵ none of these studies analyzed the effects of Sufentanil administered by sublingual, and this represents a gap because the sublingual route could be a faster and less invasive route to administration. In another systematic review,⁷ focused on sublingual Sufentanil tablet (SST) and its utility as an analgesic agent for pain procedures, authors observed that sublingual Sufentanil provided an excellent analgesic option for patients undergoing interventional pain procedures, with a better assessment than those with IV morphine, and a lower cost per treatment when compared to IV opioids.

This letter suggests some points regarding the methods and analyses of their study. Intranasal (IN) use of Sufentanil remains off-label and there are currently no published data available on equianalgesic dosing between the IV and IN routes, dosing regimens varied widely across the included studies. Although several authors⁸⁻¹¹ focused their research on studying the effect of Sufentanil on pain management, especially in major surgery, such as orthopedics, abdominal, plastic, or pulmonary surgeries, however, the optimal dose of Sufentanil in the adult population with acute pain remains unclear, especially, using the sublingual route. Indeed, it was not mentioned the use of Sufentanil in patients with facial trauma where the use of the endonasal route could be difficult to manage. Furthermore, to our knowledge and experiences, it could be difficult to administer and prepare Sufentanil using intravenous or endonasal routes in patients not collaborative or with cognitive disorders.

Therefore, considering the possibility of these variables influencing the results, it is suggested to evaluate their effect on Sufentanil by sublingual route in future studies. It is essential to manage pain quickly and effectively in the emergency setting. The European Society of Emergency Medicine (EUSEM) guidelines¹² on emergency pain strongly recommend using a de-escalation approach rather than pain escalation. Following the assessment of a patient's pain, the appropriate analgesic must be selected, considering its benefits and risks with reference to the individual patient and considering both pharmacological and non-pharmacological approaches. It would be necessary to consider the use of pre-hospital pain management drugs which can be administered to different types of patients and with a spectrum of side effects that are easier to manage not only by physicians but also by nurses.

The management of moderate to severe trauma pain in the ED could be improved by increasing the use of pain rating scales and developing and implementing effective pain management protocols. It should be noted that in some European countries, such as Italy, ambulance personnel are not authorized to administer opioid analgesics. With specific protocols, an easier route of administra-

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tion, and lower side effects, Sufentanil could be administered not only by physicians but also by the nursing staff. For example, it could be fundamental to develop a specific educational program to improve the nurses' knowledge and skills to administer Sufentanil in pre-hospital and hospital settings.¹³ This represents a great advantage for patients who could receive treatment quickly with positive consequences on their state of health, prognosis, and quality of life. Although the achievement of these results is valuable, we believe that future studies should analyze the role of Sufentanil using different routes. Finally, due to the lack of studies aimed at evaluating the role of Sufentanil in the conditions of the implementation of nursing clinical practice guidelines, we believe that more accurate and more evaluations can help prevent this common complication in the future.

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