LETTER TO THE EDITOR

ARTICLE INFO

Article history:
Received 8 October 2012
Accepted 31 October 2012
DOI:10.5055/jom.2012.0133

INTRANASAL SUFENTANIL AND ITS EMERGING CLINICAL APPLICATIONS: BEYOND ITS ROLE IN THE EMERGENCY DEPARTMENT

Dear Editor:

I read with great interest the recent article by Stephen et al.[1] Intranasal sufentanil is rapidly emerging as a treatment alternative in a number of other scenarios besides its role in achieving effective pain control in the emergency department.

Intranasal administration is safe and provides rapid relief in patients with cancer who experience breakthrough cancer pain. The low prevalence of systemic side effects makes it an ideal option in patients with cancer. For instance, in a recent study, intranasal sufentanil was rated as a better alternative than prestudy breakthrough medication in 77 percent of patients with cancer.[2]

Immediate postoperative analgesia is another emerging indication of intranasal sufentanil. The fact that the respiratory rate as well as blood pressure and pulse remain stable in the postoperative period after sufentanil administration makes it a better choice than other systemic analgesics. For instance, Mathieu et al. in a recent study showed that efficacy was reached 20 minutes after internal administration of sufentanil.[3] They also reported that intranasal 0.050 μg × kg per puff of sufentanil resulted in a score less than 4 on a numeric rating scale (within 1 hour) in all patients who received the sufentanil.

Similarly, intranasal sufentanil has been shown to be a better alternative for pain relief in comparison to tramadol drops in patients with pediatric pain.[4] In fact the pediatric patients who receive intranasal sufentanil demonstrate better anxiety scores in comparison to those who receive oral tramadol drops. Similarly, a smooth induction of general anesthesia is seen following intranasal administration of sufentanil along with intranasal midazolam in pediatric patients prior to undergoing multiple dental extractions under general anesthesia.[5] Simultaneously, the postoperative analgesia is equally effective. When used alone, sufentanil causes less nasal irritation in comparison to intranasal midazolam. Pediatric patients administered intranasal sufentanil also appear to be more cooperative during anesthesia induction in comparison to those who receive intranasal midazolam alone.[6]

The earlier examples clearly illustrate the efficacy of intranasal sufentanil and the need to increase its awareness about its clinical application amongst physicians.

Shailendra Kapoor, MD
74 Crossing Place
Mechanicsville, Virginia

REFERENCES

1. Stephen R, Lingenfelter E, Broadwater-Hollifield C, et al.: Intranasal sufentanil provides adequate analgesia for emergency department patients with extremity injuries. *J Opioid Manag.* 2012; 8: 237-241.

2. Good P, Jackson K, Brumley D, et al.: Intranasal sufentanil for cancer-associated breakthrough pain. *Palliat Med.* 2009; 23: 54-58.

3. Mathieu N, Cnudde N, Engelman E, et al.: Intranasal sufentanil is effective for postoperative analgesia in adults. *Can J Anaesth.* 2006; 53: 60-66.

4. Bayrak F, Gunday I, Memis D, et al.: A comparison of oral midazolam, oral tramadol, and intranasal sufentanil premedication in pediatric patients. *J Opioid Manag.* 2007; 3: 74-78.

5. Roelofse JA, Shipton EA, de la Harpe CJ, et al.: Intranasal sufentanil/midazolam versus ketamine/midazolam for analgesia/sedation in the pediatric population prior to undergoing multiple dental extractions under general anesthesia: A prospective, double-blind, randomized comparison. *Anesth Prog.* 2004; 51: 114-121.

6. Zedie N, Amory DW, Wagner BK, et al.: Comparison of intranasal midazolam and sufentanil premedication in pediatric outpatients. *Clin Pharmacol Ther.* 1996; 59: 341-348.