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INTERNATIONAL 25<sup>th</sup> JUBILEE  
COURSE FOR PERCUTANEOUS ENDOSCOPIC  
SPINAL SURGERY AND COMPLEMENTARY  
MINIMAL INVASIVE TECHNIQUES

SYMPOSIUM WITH INTERNATIONAL GUEST FACULTY  
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## Continuous infusion of remifentanyl under local anaesthesia for minimal invasive spine

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*Introduction:* Most of minimally invasive spine surgery has been performed under the local anesthesia with some analgesics and sedatives for awareness of nerve injury or pain relief immediately after the procedures. Remifentanyl is the newest of the fentanyl family of short-acting phenylpiperidine derivatives to be released into clinical practice. It offers the same advantages such as profound analgesia, sedation, attenuation of the stress response. The unique pharmacology of remifentanyl, in particular its rapid onset and offset, has more recently attracted clinicians especially procedures requiring a brief, intense, opioid effect. This study was performed to evaluate the efficacy and adverse effects of remifentanyl under the local anesthesia during the percutaneous vertebroplasty and percutaneous endoscopic lumbar discectomy.

*Materials and Methods:* Continuous infusion of remifentanyl in both fifty patients groups undergoing percutaneous vertebroplasty (VP group) and percutaneous endoscopic lumbar discectomy (PELD group) with a maximal anticipated duration of 60 minutes was performed. Continuous infusion rate for remifentanyl was 0.1 microgram/kg/min. Visual analog scale (VAS) to evaluate pain during the operation, respiratory intervention scale and postoperative nausea; 3 = severe nausea; 4 = retching and/or vomiting) were checked.

*Results:* Mean VAS score was 3.4 and 3.2 in the group VP and PELD. There was no respiratory intervention during and after operations in both groups. There were 2 and 3 patients in the group VP and PELD who suffered mild nausea which did not need to treat.

*Conclusion:* Continuous infusion of remifentanyl under local anesthesia may provide rapid and sufficient analgesia for ambulatory spinal surgery and could evaluate the result immediately after the procedures.