

**THE EFFICACY OF ERECTOR SPINAE PLANE BLOCK  
COMPARED TO INTRATHECAL MORPHINE FOR  
POSTOPERATIVE ANALGESIA IN LUMBAR SPINE  
SURGERY PATIENTS: A DOUBLE BLINDED PROSPECTIVE  
COMPARATIVE STUDY**

**BY**

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## **Abstract**

**Keywords:** Intrathecal morphine, erector spinae, spine, visual analog scale.

Most patients scheduled for spine surgeries experience moderate to severe postoperative pain. Erector spinae plane block (ESPB) was used for analgesia after mastectomy, thoracic, abdominal and spinal surgery and was successful due to its ease and low rate of complications. Intrathecal morphine has been used effectively for postoperative analgesia in many surgical operations..

**Aim of the study:** was to compare the efficacy of ultrasound-guided ESPB to that of intrathecal morphine on postoperative analgesia in patients undergoing lumbar spine surgery under general anesthesia.

**Results:** There was a significant difference between the two study groups regarding postoperative visual analog pain scale throughout the postoperative period until 48 hours in all recorded postoperative times (p-value < 0.001). Significant difference in the postoperative oxygen saturation up to 24 hours (p-value < 0.001) and in the sedation score up to 6 hours (p-value < 0.01), time and doses of analgesic requirement intra- and postoperatively, and postoperative sedation score between the two groups. Time of first rescue analgesic dose was [median (interquartile range)] [10 (1) and 22 (14) for erector spinae and

intrathecal morphine group respectively (p-value:0.000) and 48 hours total postoperative pethidine consumption was [median (interquartile range)] [112 (13) and 87.5 (44) for erector spinae and intrathecal morphine groups respectively (p-value:0.000)]. Complications were more in the intrathecal morphine group with 80% while no complications were recorded in the erector spinae group (p-value: 0.000).