



**Short communication**

## Comparison of the analgesic efficacy of preemptive and preventive tramadol after lumpectomy

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### Abstract:

The aim of this study was to investigate the analgesic efficacy of tramadol administrated preemptively or preventively in the earlier period of lumpectomy. Four hundred American Society of Anesthesiologists (ASA) physical status I-II patients, undergoing lumpectomy, were screened and 317 were randomly assigned into one of two groups. In the preemptive tramadol ( $n = 158$ ) group, patients received an *iv* injection of tramadol 100 mg 15 min before operation. The preventive group ( $n = 159$ ) received the same dose of tramadol 15 min before the end of the operation. Pain intensity at rest, overall satisfaction score, morphine consumption and side effects were recorded. A total of 299 patients completed the study. Preemptive and preventive subjects experienced similar analgesic effect and feeling of satisfaction at the first 24 h after surgeries. The similar amount of additional morphine was consumed [4.6 mg (95% CI 1.5–7.2) vs. 4.1 mg (95% CI 1.2–6.3),  $p = 0.811$ ]. No intergroup difference was observed in the incidence of side effects. In conclusion, preemptive and preventive administration of tramadol expressed analgesia of similar efficacy up to 24 h after lumpectomy. The additional morphine requirement, the overall satisfaction and the frequency of side effects all did not display significant difference between the two groups. This implies that the administration of tramadol either before the start or before the end of the surgical procedures all can produce effective postoperative analgesia.

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### Key words:

postoperative pain, postoperative analgesia, opioids, tramadol, lumpectomy

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