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Original Research Article

The effect of magnesium sulfate [MG-Sulfate] infusion in the operating room on analgesia after hysterectomy in women with cancer

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ABSTRACT

Introduction: Magnesium sulfate [MG-Sulfate] acts as a calcium channel blocker and NMDA receptor antagonist. When the magnesium ions are separated from the NMDA receptors, the pain sensation process begins. After major surgery, with the onset of acute pain, clinical use of magnesium can reduce postoperative pain by blocking the central sensation of pain by blocking NMDA receptors. The aim of this study was to evaluate the effect of MG-Sulfate infusion in the operating room on analgesia after hysterectomy in women with cancer. **Material and Methods:** In this prospective cross-sectional study, 40 candidates for hysterectomy [due to cancer] were evaluated. Magnesium group [M] 50 mg / kg IV MG-Sulfate in 100 cc normal saline 0.9% and control group [C] 100 cc normal saline 0.9% after intubation and their pain intensity was measured by VAS. Finally, a comparison was made between the two groups. **Results:** There is no statistically significant change in the amount of pain at rest between the two groups [p-value=0.925] and it can be said that the two drugs did not have different effects. The mean amount of pain changes in cough condition was examined using repeated measures analysis of variance, which showed that the age variable had no statistically significant effect on changes in pain during cough [p-value = 0.925]. **Conclusion:** Administration of MG-Sulfate at a dose of 50 mg / kg has no effect on pain intensity and drug dose after hysterectomy [due to cancer] and also changes systolic and diastolic blood pressure and arterial blood oxygen saturation during and after surgery. This does not apply to the control group and only causes a significant increase in heart rate compared to the control group at the end of the operation.

Keywords: Magnesium Sulfate, Hysterectomy, Pain, Cancer

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