

## عنوان مقاله:

The Effect of Intravenous Infusion of Magnesium Sulfate During Bimaxillary Orthognathic Surgery on Post-operative Pain: A Clinical Trial

## محل انتشار:

مجله علمی جراحی، دوره 3، شماره 1 (سال: 1395)

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## نویسندگان:

Hamidreza Eftekharian - *Department of Craniomaxillofacial Surgery, School, of Dentistry, Shiraz university of medical Sciences, Shiraz, Iran*

Seyed AliAsghar Hosseini - *Department of Craniomaxillofacial Surgery, School, of Dentistry, AND Health Policy Research Center, Shirza University of Medical Sciences, Shiraz, Iran*

Seyed Taghi Heydari - *Department of Craniomaxillofacial Surgery, School, of Dentistry, AND Shahid Chamran Hospital, Shiraz University of Medical Sciences, Shiraz, Iran*

## خلاصه مقاله:

**Background:** This prospective randomized controlled clinical study aimed to investigate the effect of magnesium sulfate (MgSO<sub>4</sub>) on pain management post orthognathic surgery. **Methods:** In this study, 52 patients undergoing orthognathic surgery were randomly allocated to receive MgSO<sub>4</sub> or saline intravenously. The intervention group (n = 26) received intravenous MgSO<sub>4</sub> (30 mg/kg bolus for 15 minutes immediately before anesthesia induction followed by 10 mg/kg/h dissolved in saline via pump infusion) and the second group (n = 26) received the placebo in the same bolus volume as a normal saline in a 15 minute intravenous infusion which was continued until the end of the operation. A visual analog scale (VAS) was used to determine the intensity of pain. Invasive arterial blood pressure and valid and invalid analgesic demand were also recorded. Side effects were recorded, as well. **Results:** This study was conducted on 52 patients, 26 per group. The results showed no statistically significant differences between the two groups with respect to demographics. During the post-operative period, the patients in the control group showed larger analgesic requirement 7 (26.9%) compared to those in the magnesium group 4 (15.4%) and the difference was not statistically significant (P = 0.308). The post-operative VAS scores evaluated serially from the recovery room also showed a significant difference between the intervention 3 (11.5%) and the control group 14 (53.8%) after the surgery (P = 0.001). However, no significant difference was found between the two groups regarding VAS scores in the surgical ward [7 (26.9%) vs. 8 (30.8%) P = 0.760]. **Conclusions:** Intra-operative administration of intravenous MgSO<sub>4</sub> reduced opioid consumption for pain after bimaxillary orthognathic operations. © 2014 Tehran University of Medical Sciences. All rights reserved. **Citation:** Eftekharian HR, Hosseini SAA, Heydari ST. The Effect of Intravenous Infusion of Magnesium Sulfate During Bimaxillary Orthognathic Surgery on Post-operative Pain: A Clinical Trial. *Acad J Surg*, 2016; 3(1-2): 7-11

## کلمات کلیدی:

Infusions; Intravenous; Magnesium sulfate; Orthognathic surgery; Pain; Post-operative; Pain management

لینک ثابت مقاله در پایگاه سیویلیکا:

