

عنوان مقاله:

The effect of low-level laser therapy on trismus, facial swelling and pain following surgical extraction of impacted lower third molar

محل انتشار:

اولین کنگره دانشجویی دندانپزشکی شمال کشور (سال: 1398)

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خلاصه مقاله:

Background and Objective: The purpose of this study is to evaluate the effect of laser photobiomodulation using diode low-level laser irradiation on the amount of pain, swelling and trismus due to latent mandibular third molar surgery (surgical removal of latent mandibular third molars). **Materials and Methods:** Sixteen individuals with latent mandibular third molar surgery with identical conditions were selected. One of the teeth was randomly assigned to the intervention group and the other tooth was assigned to the control group. Two weeks later, we removed teeth using 2 lidocaine cartridge at 1: 100,000 epinephrine concentration under the lower alveolar nerves and buccal anesthesia. In the control group immediately after surgery for one minute, with a distance of 1 cm, we placed the area under low-intensity laser radiation (Epic10, Biolase, USA) with 940 nm wavelength and a power of 300 mW with a total dose of 54 J/cm². The distance between incisal edges of upper and lower central teeth, horizontal distance between corners of lips and auricle (LE), and vertical distance between the outer canthus of the eye and the mandibular angle (EA) and pain visual analogue scale (VAS) were recorded before surgery and on days two and seven after surgery. **Finding:** After laser radiation, all measured parameters, except for the horizontal distance between the corners of lips and auricle, and the amount of pain reported 7 days after surgery, were significantly improved compared to the control group. **Conclusion:** Using low-power diode laser in the mouth and after surgery significantly reduced pain, swelling and trismus after latent mandibular third molar surgery.

کلمات کلیدی:

Low intensity light therapy; Third molar; Surgery

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