A clinical comparison of efficiency of laser surgery and electrosurgery on intraoral soft tissue pathologies

A. Kocer*, M.E. Yurttutan, A. Keskin, U.K. Akal Aktas

Ankara University, Faculty of Dentistry, Department of Oral and Maxillofacial Surgery, Turkey

In this study, the difference of laser surgery and electrosurgery and their superiority against each other is intended to be clarified. In our study, epulis fissuratum excision was carried out which is a reactive lesion of oral soft tissues. 17 patients were treated with laser surgery and 17 patients were treated with electrosurgery. 34 patients in total were included in the study. Mann–Whitney *U* test and the Chi squared test were used for the statistical analysis.

Most complaints that discomfort the patients was determined as the parameters of our study; pain, contraction, analgesic requirements and reepithelisation time.

An evaluation form on postoperative pain, contraction, analgesic requirement and total amount of analgesic used was filled by patients with the help of visual and verbal scales. Patients were monitored on the reepithelisation day by inviting them to clinical controls on postoperative days 3, 7, 14, 21 and 30.

No significant difference was found between laser surgery and electrosurgery. After both surgical procedures, there was an approximately equal level of pain and both within acceptable limits.

During the postoperative period, both groups reported that they have no feeling of contraction. Since the reepithelisation model develops from basal layer to upper layer in both methods, there has been no shoaling in the vestibular sulcus. No scarring was observed.

No significant difference was found between laser surgery and electrosurgery in terms of needed and used total amount of analgesic in the postoperative period.

Reepithelisation duration of clinically monitored patients was observed to be completed in 21 days on average for both groups.

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Postoperative pain after bilateral third molar extraction under local anaesthesia with sedation is less severe than that after unilateral third molar extraction under local anaesthesia

K. Kurita

Aichi Gakuin University School of Dentistry, Nagoya, Japan

Background: In Japan, unilateral tooth extraction is performed under standard local anaesthesia, while bilateral extraction is performed under local anaesthesia with sedation because postoperative pain seems to be more severe after bilateral than unilateral extraction. However, there is little evidence regarding the postoperative pain level after these two extraction methods.
Objective: The aim of this study was to investigate the possibility of intravenous sedation as a useful pain-relieving option for impacted third molar extraction.
Methods: A prospective cohort study was conducted among patients who underwent bilateral mandibular third molar extraction under local anaesthesia with intravenous sedation (sedation group) and patients who underwent unilateral mandibular third molar extraction under local anaesthesia alone (local anaesthesia group). The frequency of use of postoperative oral analgesia and the intensity of pain assessed using the full cup test were compared between the two groups.
Findings: The maximum pain intensity (0–100) on postoperative day one in the sedation and local anaesthesia groups was 72.80 ± 16.98 and 84.80 ± 15.84, respectively, and the mean pain intensity was 42.20 ± 16.00 and 49.60 ± 18.94, respectively. The maximum and mean pain intensities in the sedation group were significantly milder than those in the local anaesthesia group. The number of oral analgesic doses in the sedation group was significantly lower on both the day of surgery and postoperative day one than in the local anaesthesia group.
Conclusion: The results of this study suggest that bilateral impacted mandibular third molar extraction under local anaesthesia with intravenous sedation could be a recommended treatment option.

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Antimicrobial effect of a single dose of amoxicillin on the oral microbiota

C. Larsson Wexell*, H. Ryberg, W. Sjöberg Andersson, S. Blomqvist, P. Colin, J. Van Bocxlaer, G. Dahlén

Department of Oral and Maxillofacial Surgery, Södra Älvsborg Hospital, Borås and Department of Biomaterials, Institute of Clinical Sciences, Sahlgrenska Academy at University of Gothenburg, Gothenburg, Sweden

Background: Antimicrobial resistance is a severe global threat and it is crucial to prevent overuse of antibiotics. After surgery, during the postoperative follow-up period, the prevention of postoperative complications and the risk of compromising surgical efforts may drive the decision to administer prophylactic antibiotics to healthy patients.
Objectives: The aim of this study was to determine whether amoxicillin reaches the break-point concentrations in saliva and has any effect on the salivary microbiota, colonising bacteria on mucosal membranes and on the gingival crevice after a single dose of amoxicillin.
Methods: Twenty subjects received 2 g of amoxicillin, per os. The facultative and strictly anaerobic microflora, as well as the streptococcal microflora specifically, were followed from baseline and after 1, 4 and 24 h. Samples were taken from saliva, the dorsum of the tongue and the gingival crevice and were inoculated and cultured. Plasma samples and saliva samples were analysed for amoxicillin concentrations (free and protein bound) using liquid chromatography and mass-spectrometry.
Findings and Conclusions: Amoxicillin was detected in concentrations over the breakpoint (>2 μg/mL) of amoxicillin in plasma after 1 and 4 h but not after 24 h. In saliva, amoxicillin levels were undetectable at all time points in all subjects. The dose had a significant effect on the streptococci in the gingival crevice and may be recommended for dentoalveolar surgery for patients requiring antibiotic prophylaxis.

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