

# PRIMENA KORTIKOSTEROIDA U PREVENCIJI OTOKA, BOLA I TRIZMUSA NAKON HIRURŠKE EKSTRAKCIJE IMPAKTIRANIH DONJIH TREĆIH MOLARA

## APPLICATION OF CORTICOSTEROIDS IN THE PREVENTION OF SWELLING, PAIN AND TRISMUS AFTER SURGICAL EXTRACTION OF IMPACTED LOWER THIRD MOLARS

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### SAŽETAK

Uvod. Hirurška ekstrakcija impaktiranih donjih trećih molara je, u izvesnom stepenu, neizbežno praćena postoperativnom pojavom trizmusa, otoka i osećaja bola. Kortikosteroidi su lekovi koji se najčešće koriste u prevenciji tih komplikacija.

Cilj. Cilj rada bio je da se utvrdi efikasnost deksametazona u prevenciji postoperativnih komplikacija, edema, trizmusa i bola, nakon hirurške ekstrakcije impaktiranih donjih trećih molara, u zavisnosti od načina njegove administracije.

Metode. Prospektivnom studijom obuhvaćeno je 30 zdravih pacijenata, starijih od 18 godina, oba pola, sa potpuno impaktiranim donjim trećim molarom - klase I ili II i pozicije B ili C, prema klasifikaciji Pell-a i Gregory-ja, i vertikalne pozicije prema klasifikaciji Winter-a. Svi pacijenti su nasumično podeljeni u dve grupe u zavisnosti od načina primene deksametazona: submukozno - rastvor deksametazona primjenjen submukozno, u dozi od 4 mg, u predelu bukalnog sulkusa, nakon sprovodne anestezije za donji alveolarni nerv i dodatne anestezije za bukalni nerv; intramuskularno - rastvor deksametazona primjenjen intramuskularno, u dozi od 4 mg, u predelu deltoidnog mišića, neposredno pre intervencije. Preoperativno i pri svakoj kontrolnoj poseti (prvog, drugog i sedmog dana postoperativno) određivani su interincizalno rastojanje, stepen edema i stepen bola primenom vizuelno analogne skale (VAS). Sedmog postoperativnog dana evidentiran je ukupan broj analgetika koje su pacijenti uzimali.

Rezultati. U postoperativnom periodu nije bilo statistički značajne razlike između ispitivanih grupa u pogledu efikasnosti u smanjenju otoka, trizmusa i bola ( $p > 0,05$ ).

Zaključak. Nema značajne razlike u efikasnosti deksametazona u odnosu na način primene - oralno, intramuskularno ili lokalno submukozno, u redukciji postoperativnog trizmusa, otoka i bola nakon hirurškog lečenja impaktiranog donjeg trećeg molara.

Ključne reči: deksametazon; lekovi, putevi primene; molar, treći; hirurgija, oralna, procedure; trizmus.

### ABSTRACT

Background. Surgical extraction of impacted lower third molars is inevitably followed by the postoperative occurrence of trismus, swelling, and pain sensations to some degree. Corticosteroids are commonly used drugs in the prevention of these complications.

Aim. The aim of this study was to determine the effectiveness of dexamethasone in the prevention of postoperative complications, edema, trismus, and pain after the surgical extraction of impacted lower third molars, depending on the method of its administration. Methods. This prospective study involved 30 healthy patients, aged 18 years and above, of both sexes, with fully impacted lower third molar - class I or II and position B or C, according to Pell and Gregory classification system and vertical position according to Winter classification. All patients were divided randomly into two groups depending on the way of dexamethasone administration: submucosal - dexamethasone solution administered submucosally in a dose of 4 mg in the area of the buccal sulcus, after the inferior alveolar nerve block anesthesia and additional anesthesia for the buccal nerve; intramuscular - dexamethasone solution administered intramuscularly in a dose of 4mg into the area of the deltoid muscle, right before the intervention. Preoperatively and at every follow-up (on the first, second, and seventh day postoperatively), interincisal distance, the degree of edema, and the level of pain with the use of a visual analog scale (VAS) were measured. On the seventh postoperative day, the total number of analgesics taken by the patients was recorded.

Results. In the postoperative period, there was no statistically significant difference between the examined groups in terms of effectiveness in swelling, trismus, and pain reduction ( $p > 0.05$ ).

Conclusion. There is no significant difference in dexamethasone effectiveness in postoperative trismus, swelling, and pain reduction after the third lower molar surgery, regarding the route of administration - intramuscular or local submucosal.

Key words: dexamethasone; drug administration routes; molar, third; oral surgical procedures; trismus.