

INTISARI

Rasa sakit, edema dan trismus masih sering dikeluhkan oleh pasien pascaodontektomi molar ketiga mandibula. Pemberian bahan topikal mulai digunakan untuk mengurangi keluhan salah satunya gel kitosan. Aplikasi kitosan pada soket akan menghambat degradasi I- κ B dan mencegah translokasi ikatan p65 dengan *nuclear transcription factor* (NF)- κ B sehingga mengurangi aktifitas (NF)- κ B dan menghasilkan penurunan produksi sitokin-sitokin proinflamasi, TNF- α , IL-1 dan COX-2. Penelitian bertujuan mengetahui efek gel kitosan pada soket molar ketiga mandibula terhadap nyeri, edema dan trismus pascaodontektomi

Penelitian ini pada 10 pasien impaksi Klas IIA atau IIB yang dilakukan odontektomi oleh operator yang sama, dibagi menjadi 2 kelompok: kelompok kontrol, tanpa aplikasi kitosan dan kelompok aplikasi gel kitosan masing-masing 5 sampel. Pengamatan VAS, edema dan trismus dilakukan setelah selesai odontektomi (H+0), pascaodontektomi hari ke-1 (H+1), hari ke-3 (H+3) dan hari ke-7 (H+7). Data dianalisis dengan uji *repeated measure anova* dilanjutkan uji t-tes.

Hasil statistik menunjukkan VAS kelompok kitosan lebih rendah baik H+0, H+1, H+7 (p masing-masing =0,00), namun H+3 tidak signifikan (p=0,07); edema kelompok kitosan cenderung lebih rendah pada semua hari pengamatan namun tidak signifikan; trismus kelompok kitosan pada H+0, H+3 dan H+7 cenderung lebih tinggi namun tidak signifikan dengan p masing masing 0,05 sedangkan pada H+1 kitosan lebih rendah secara signifikan (p=0,00). Kesimpulan aplikasi gel kitosan pada soket molar ketiga mandibula pascaodontektomi mampu mengurangi nyeri secara signifikan, namun untuk edema tidak menunjukkan perbedaan signifikan, sedangkan trismus perbedaan signifikan hanya pada H+1.

Kata kunci: *kitosan, odontektomi, impaksi, gigi molar tiga mandibula, VAS, edema, trismus*

ABSTRACT

Pain, swelling and trismus are among the common complaints by patients following odontectomy of mandibular third molars. Topical application begins to be used to reduce the complaints, one of which is chitosan gel applied to the socket inhibit degradation of I- κ B and prevent translocation of p65 bonds with nuclear transcription factor (NF) - κ B resulting in reduced activity (NF) - κ B. Inhibited degradation I - κ B by chitosan will reduce the production of TNF- α , IL-1 and COX-2, pro-inflammatory cytokines. This study was aimed at observing the effects of chitosan gel in the mandibular third molar socket on pain, swelling and trismus after odontectomy.

This study involved 10 Class IIA or IIB impacted patients in whom odontectomy was performed by the same operator in 2 different groups: the control group, who received no application of chitosan and the chitosan gel application group, each of which consists of 5 samples Observations which included VAS, swelling and trismus were carried out on the same day after odontectomy (H+0), day 1 after odontectomy (H+1), day 3 after odontectomy (H+3) and day 7 after odontectomy (H+7). Data collected were analyzed by Repeated Measures Anova, subsequently followed by t-test.

Statistical test results indicated that VAS of the chitosan group was lower on H+0, H+1, H+7 with p (0.00) respectively, but H+3 was found insignificant (0.07); swelling of chitosan application group was lower on all days of observation despite insignificance; trismus of the chitosan application group in H+0, H+3 and H+7 was likely to be higher but it was not significant with (p=0.07) respectively. On H+1, however, the trismus of chitosan application group was significantly lower (p = 0.00). Conclusion: the application of chitosan gel in the mandibular third molar socket after odontectomy reduces pain significantly, but no significant difference was found in swelling whereas a significant difference was found in trismus on H+1.

Keywords: *chitosan, odontectomy, impacted mandibular third molars, VAS, swelling, trismus*