

INTISARI

Cedera jaringan lunak dan tulang selama tindakan odontektomi sering mengakibatkan komplikasi lokal pascaodontektomi molar ketiga mandibula berupa nyeri, edema, dan trismus. Selain itu, kemungkinan dapat menyebabkan respon inflamasi sistemik dengan peningkatan produksi sitokin pro inflamasi seperti Interleukin-6 (IL-6) dan C-Reactive Protein (CRP) pada sirkulasi. Tujuan dari penelitian ini adalah mengevaluasi kadar IL-6 dengan CRP dan korelasinya dengan komplikasi lokal seperti nyeri, edema, trismus pascaodontektomi.

Penelitian prospektif *cross sectional* dilakukan di RSPAU dr. Hardjolukito, Yogyakarta dengan subjek penelitian berjumlah 29 orang terdiri dari 8 laki-laki (27,6%) dan 21 perempuan (72,4%) dengan median umur 23 (19-45) tahun yang mempunyai impaksi kelas 2. pasien odontektomi gigi molar ketiga mandibula dengan anestesi lokal dengan kriteria inklusi yang telah ditentukan. Setiap subyek penelitian dilakukan pengukuran IL-6, CRP dan pemeriksaan klinis berupa nyeri, edema, dan bukaan mulut pada 30 menit praodontektomi sebagai *baseline* (H-0), hari ke-1 (H+1) dan hari ke-7 (H+7) pascaodontektomi.

Kadar IL-6, CRP, nyeri, edema meningkat dan bukaan mulut menurun pada H+1 pascaodontektomi ($p < 0.05$) dan terjadi penurunan kadar IL-6, CRP, nyeri, edema dan peningkatan bukaan mulut dibandingkan H+7 ($p < 0.05$). Tidak terdapat perbedaan bermakna kadar H+7 dibandingkan H-0 ($p > 0.05$). Kadar IL-6 pada gigi impaksi dengan karies atau perikoronitis mempunyai kadar yang lebih tinggi dibandingkan dengan gigi yang tidak terdapat lesi tersebut ($p < 0.05$). Terdapat korelasi antara kadar IL-6 dengan CRP dan komplikasi pascaodontektomi (nyeri, edema, trismus) ($p < 0.05$).

Kadar IL-6 dan CRP serum mengalami peningkatan H+1 dan penurunan mendekati kadar praodontektomi pada H+7 pascaodontektomi. Interleukin-6 berkorelasi dengan CRP dan komplikasi nyeri, edema dan trismus pascaodontektomi. Perikoronitis dan karies pada gigi impaksi dapat menjadi faktor risiko peningkatan IL-6 pascaodontektomi.

Kata kunci: IL-6, CRP, komplikasi pascaodontektomi, perikoronitis/karies.

ABSTRACT

Soft tissue and bone injuries during odontectomy often result in local complications of mandibular third molar postodontectomy such as pain, edema and trismus. In addition, it may cause a systemic inflammatory response with increased production of pro-inflammatory cytokines such as Interleukin-6 (IL-6) and C-Reactive Protein (CRP) in the circulation. The aim of this study was to evaluate the levels of IL-6 with CRP and its correlation with local complications such as pain, edema, trismus postodontectomy.

A prospective cross sectional study was conducted at RSPAU dr. Hardjolukito, Yogyakarta with 29 research subjects consisting of 8 males (27.6%) and 21 females (72.4%) with a median age of 23 (19-45) years who had impaction class 2. mandibular third molar odontectomy patients under local anesthesia with predetermined inclusion criteria. Each research subject was measured IL-6, CRP and clinical examination in the form of pain, edema, and mouth opening at 30 minutes preodontectomy as baseline (D-0), day 1 (D+1) and day 7 (D+7) postodontectomy.

IL-6, CRP, pain, edema increased and mouth opening decreased at D+1 postodontectomy ($p < 0.05$) and there was a decrease in IL-6, CRP, pain, edema and increased mouth opening compared to D+7 ($p < 0.05$). There was no significant difference in levels at D+7 compared to D-0 ($p > 0.05$). IL-6 levels in impacted teeth with caries or pericoronitis had higher levels compared to teeth without these lesions ($p < 0.05$). There was a correlation between IL-6 levels with CRP and postodontectomy complications (pain, edema, trismus) ($p < 0.05$).

Serum IL-6 and CRP levels increased at D+1 and decreased to near preodontectomy levels at D+7 postodontectomy. Interleukin-6 correlated with CRP and complications of postodontectomy pain, edema and trismus. Pericoronitis and caries in impacted teeth may be risk factors for increased IL-6 postodontectomy.

Key words: IL-6, CRP, postodontectomy complications, pericoronitis/caries.