

INTISARI

Periodontitis merupakan penyakit inflamasi jaringan periodontal yang disebabkan oleh produk bakteri yang mampu merusak jaringan pendukung gigi. Kuretase merupakan tindakan bedah periodontal yang berfungsi untuk menghilangkan jaringan granulasi dalam poket. Pada perawatan periodontitis, terapi tambahan seperti *metronidazole gel 25%* selama ini digunakan pasca kuretase, *chlorhexidine gel 0.2%* efektif sebagai terapi tambahan karena memiliki spektrum luas. Respon penyembuhan luka periodontal ditandai oleh meningkatnya *Transforming Growth Factor-β1* (TGF-β1). Tujuan penelitian ini adalah untuk mengkaji kadar TGF-β1 cairan sulkus gingiva pada aplikasi *chlorhexidine gel 0.2%* pasca kuretase terhadap model periodontitis *Oryctolagus cuniculus*.

Subjek penelitian adalah 6 ekor kelinci yang dilakukan perlakuan, dibagi menjadi 3 kelompok, yaitu kelompok kuretase+*metronidazole gel 25%*, kelompok kuretase+*chlorhexidine gel 0.2%*, kelompok kuretase saja, dan kemudian dilihat kadar TGF-β1 cairan sulkus gingiva menggunakan ELISA reader dengan panjang gelombang 450nm pada hari ke-7, dan 14.

Hasil penelitian menunjukkan kadar TGF-β1 meningkat pada hari ke7 dan ke 14 pada semua kelompok dan tertinggi pada perawatan kuretase+*chlorhexidine gel 0.2%* dibandingkan pada perawatan kuretase+*metronidazole gel 25%*, dan kuretase saja, sehingga kesimpulan dari penelitian ini bahwa aplikasi *chlorhexidine gel 0.2%* pasca kuretase meningkatkan kadar TGF-β1 cairan sulkus gingiva kelinci *Oryctolagus cuniculus*.

Kata Kunci : *Chlorhexidine gel 0.2%*, kuretase, cairan sulkus gingiva *Oryctolagus cuniculus*, kadar TGF-β1

ABSTRACT

Periodontitis is an inflammatory disease of periodontal tissue caused by bacterial products that can damage the tooth supporting tissue. Curettage is a periodontal surgical procedure to remove granulation tissue in a pocket. In periodontitis treatment, additional therapy such as 25% metronidazole gel has been used after curettage, 0.2% chlorhexidine gel is effective as an additional therapy because it has a broad spectrum. The response of periodontal wound healing is characterized by increased *Transforming Growth Factor-β1* (TGF-β1). The purpose of this study was to assess the levels of TGF-β1 of the gingival crevicular fluid in the application of 0.2% chlorhexidine gel after curettage to the periodontitis model of *Oryctolagus cuniculus*.

Study subjects were 6 rabbits that received curettage, divided into 3 groups, i.e. the curettage + 25% metronidazole gel group, the curettage+0.2% chlorhexidine gel group, the curettage-only group, subsequently, the gingiva crevicular fluid TGF-β1 level were read using an ELISA reader with wavelength of 450 nm waves on day-7 and 14.

The study results showed every group increase in TGF-β1 level in day-7 and 14, that the highest TGF-β1 levels, on day-7 and 14, were on the curettage + 0.2% chlorhexidine gel treatment group compared to the curettage + 25% metronidazole gel , and the curettage-only group, therefore the conclusion of this study is that application of 0.2% chlorhexidine gel post curettage increased the levels of TGF-β1 of *Oryctolagus cuniculus* gingival crevicular fluid.

Keywords: 0.2% Chlorhexidine gel, curettage, *Oryctolagus cuniculus* gingival crevicular fluid, TGF-β1 level