INTISARI

Latar Belakang: 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 *chlorhexidine gel* 0,2 % selama ini digunakan paska kuretase, chlorine dioxide gel 0,1% efektif sebagai terapi tambahan karena memiliki spektrum luas. Respon penyembuhan jaringan periodontal ditandai dengan penurunan IL-1β.Tujuan penelitian ini adalah untuk mengkaji kadar IL-1β cairan sulkus ginigiva manusia paska kuretase

Metode: Penelitian ini merupakan experimental semu dengan kriteria inklusi, laki-laki, umur antara 18-55 tahun dengan kedalaman poket 4-6 mm pada gigi depan mandibula

Hasil: terjadi penurunan kadar IL-1β pada hari ke-1,3 dan 7 dengan signifikan pada masing-masing perawatan dan reduksi tertinggi terdapat pada perlakuan kuretase dengan *chlorine dioxide gel* 0,1 %

Kesimpulan : berdasarkan hasil penelitian, chlorine dioxide gel 0,1 % lebih efektif dibandingkan aplikasi *chlorhexidine gel* 0,2% paska kuretase maupun aplikasi salin paska kuretase, hal ini dikarenakan *chlorine dioxide gel* 0,1% merupakan bakterisid kuat yang dapat membunuh hampir semua tipe dari bakteri, alga dan virus, *chlorine dioxide gel* 0,1% juga mengandung asam folat yang dapat meregenerasi sel dan *aloe vera* yang berfungsi mempercepat penyembuhan

Kata kunci: Periodontitis, Penyembuhan, *chlorine dioxide*, *chlorhexidine*, IL-1β

Abstract

Introduction : Periodontitis is a chronic inflammatory disease of the teeth supporting tissues, which is caused by several factors, including oral bacteria, human genetics, and environmental factors. One of the chemotherapy agents that is often used in dentistry is Chlorhexidine gel.
, chlorine dioxide differs from other antifungal drugs in that it has broad-spectrum and having anti-inflammatory properties, Chlorine dioxide has antibacterial effect too. The aim of this study is to research effectivity between application of chlorine dioxide gel than chlorhexidine gel after curettage on Interleukin 1β levels in healing periodontitis.
Method : This study is a quasi-experimental study using a research group with inclusion criteria: male, aged 18 to 55 years, no history of systemic disease and have pocket
4-6 mm deep on the mesial/distal side of mandibular anterior teeth.
Result : This study showed that the reduction of interleukin 1β levels on day 1 ,-3 and -7 increased significantly in each treatment, and the highest reduction in IL-1β levels was found in the application of 0.1% chlorine dioxide gel. The high reduction rate on day 1-7 in the results showed that the levels of IL-1β decreased in each treatment group, this was in accordance with the hypothesis which stated that the application of 0.1% chlorine dioxide gel effective in
Conclusion : From study results, 0.1% chlorine dioxide gel more effective compared to 0.2% chlorhexidine gel after curettage or curettage with saline, this is due to 0.2% chlorine dioxide gel is a strong bactericidal that can kill almost all types of bacteria, fungi, algae and viruses. 0.2% chlorine dioxide gel also contains folic acid which helps regenerate body cells and aloe vera which functions to accelerate healing.

Keyword : Periodontitis, Healing, Chlorine Dioxide, Chlorhexidin, Interleukin 1β