

## INTISARI

Klorheksidin merupakan agen anti mikrobial berspektrum luas, yang sudah digunakan sebagai antiseptik topikal sejak lebih dari 30 tahun. Agar pelepasan klorheksidin dalam rongga mulut dapat terkontrol, diperlukan sistem penghantar obat. Kombinasi antara Gelatin-CHA dalam sediaan membran yang stabil. Penelitian ini bertujuan untuk mengetahui pengaruh penambahan membran gelatin karbonat apatit sebagai penghantar klorheksidin pada penyembuhan periodontitis kronis pasca kuretase.

Sebanyak 45 titik poket periodontal dengan kedalaman poket 3-5 mm diteliti di Klinik Spesialis Periodonsia RSGM UGM Prof Soedomo. Perawatan yang dilakukan adalah kuretase dengan 3 kelompok obat yaitu periochip, membran CHA, dan membran CHA-klorheksidin. Pemeriksaan klinis dilakukan pada hari ke 0, 7, 21, dan 28 dengan parameter klinis *Pocket Depth* (PD), *Relative Attachment Loss* (RAL) dan *Papillary bleeding index* (PBI). Data hasil penelitian dianalisis dengan uji *Kruskal wallis* dan *Mann-Whitney*. Hasil penelitian menunjukkan bahwa penambahan membran gelatin karbonat apatit sebagai sistem penghantar klorheksidin pada penyembuhan periodontitis kronis pasca kuretase memiliki hasil reduksi *Pocket Depth* (PD), *Relative Attachment Loss* dan *Papillary bleeding index* (PBI).

Dari penelitian ini dapat disimpulkan bahwa tidak terdapat pengaruh penambahan membran gelatin karbonat apatit sebagai penghantar klorheksidin terhadap penyembuhan periodontitis kronis pasca kuretase dengan parameter *pocket depth* (PD), *relative attachment loss* (RAL), dan *papillary bleeding index* (PBI). Membran gelatin karbonat apatit sendiri menurunkan *Pocket Depth* (PD), *Relative Attachment Loss* (RAL) dan *Papillary bleeding index* (PBI) paling besar pada hari ke 21.

**Kata kunci :** gelatin karbonat apatit, klorheksidin, sistem penghantar obat, kuretase

## ABSTRACT

Chlorhexidine is a broad-spectrum anti-microbial agent, which has been used as a topical antiseptic for more than 30 years. In order to releasing chlorhexidine in the oral cavity can be controlled, a drug delivery system is needed, which is a combination of gelatin-CHA in a stable membrane preparation. The aim of this study was to determine the effect of apatite gelatin carbonate membrane as a chlorhexidine delivery system to treat chronic periodontitis post curettage.

A total of 45 periodontal pocket with 3-5mm pocket depth were investigated at the Periodonsia Specialist Clinic at RSGM UGM Prof. Soedomo. The treatment was curettage with 3 drugs which were periochip, CHA membrane, and CHA-CHX membrane. Clinical examination was carried out on 0, 7, 21, and 28 days with clinical parameters were Pocket Depth (PD), Relative Attachment Loss (RAL), and Papillary bleeding index (PBI). Research data were analyzed with the Kruskal Wallis and Mann-Whitney. The results showed that the addition of CHA membrane as a chlorhexidine delivery system in the healing of chronic periodontitis post curettage could reduce Pocket Depth (PD), Relative Attachment Loss) and Papillary bleeding index (PBI).

From this study it can be concluded that there was no effect of adding carbonate apatite gelatin membrane as a chlorhexidine delivery system on the healing of chronic periodontitis post curettage with clinical parameters such as pocket depth (PD), relative attachment loss (RAL), and papillary bleeding index (PBI). Carbonate apatite gelatin membrane itself decreased pocket depth, relative attachment loss and papillary bleeding index greater on the 21st day.

**Keywords :** carbonated apatite gelatin, metronidazole, chlorhexidine, curettage