

Proceeding



THE RELATION OF INTERALAR WIDTH TO INTERCANINE DISTANCE AMONG THE RACES OF MALAY, CHINESE AND INDIAN 168 Emma Rachmawati ¹ , Nani Murniat ¹ , Yong Jhia Yim ¹ 168	145-152
THE EFFECTIVENESS OF WHITE CAMBODIA FLOWER EXTRACT (<i>Plumeria alba</i> L.) AS A DENTURE CLEANSER TO DECREASE THE NUMBER OF <i>Candida Albicans</i> IN SOFT LINER	153-160
Elizabeth Luna Kania Anindita, Lusi Hidayati, Achmad Gunadi 176 ANTIBACTERIAL EFFECT OF GAMBIR EXTRACT (<i>Uncaria gambir</i> [Roxb.]) TO BACTERIAL COLONIES IN MALE WISTAR STRAIN RATS 185 Rosada Sintya Dwi*, Siti Rusdiana Puspa Dewi*, Intan Ardita* 185	161-168
THE EFFECTIVENESS OF GAMBIER EXTRACT (<i>Uncaria gambir</i> [Roxb.]) AS AN ANTI-INFLAMMATORY AGENT IN WISTAR MALE RATS (<i>Rattus</i> <i>norvegicus</i> L.) 194 Ickman Seto, Siti Puspa Dewi, Ulfa Yasmin, Falensia Octaria 194	169-175
ANTIBACTERIAL ACTIVITY OF HIBISCUS ROSA-SINENSIS FLOWER EXTRACT AGAINST <i>Fusobacterium nucleatum</i> 201 Wahyu Dwi Putra*, Shanty Chairani*, Mellani Cinder Negara** 201	176-182
THE DIFFERENCE IN ANTI-BACTERIAL ACTIVITY BETWEEN BASIL LEAF (<i>Occinum sanctum</i>) ESSENTIAL OIL AND CHLORHEXIDINE GLUCONATE TOWARDS <i>Enterococcus faecalis</i> 209 Fajar Fatriadi, Diani Prisinda, Ame Suciati 209	183-186
EVALUATION OF ANTIFUNGAL ACTIVITY OF <i>Stichopus hermanii</i> ETHANOL EXTRACT AS ORAL CANDIDIASIS TREATMENT 214 Syamsulina Revianti* and Kristanti Parisihni* 214	187-194
THE EFFECT OF COMBINATION <i>Sticopus hermanii</i> AND HYPERBARIC OXYGEN ON OSTEOBLAST AND OSTEOCLAST IN PERIODONTAL TISSUE DIABETIC RAT 223 Dian Mulawarmanti 1, Kristanti Parisihni ¹ , Yoifah Rizka Wedarti	195-202
DISTALIZATION OF UPPER MOLAR WITH REMOVABLE APPLIANCE Deni Sumantri 231	

The Difference In Anti-Bacterial Activity Between Basil Leaf (*Occinum Sanctum*) Essential Oil And Chlorhexidine Gluconate Towards *Enterococcus Faecalis*

Fajar Fatriadi, Diani Prisinda, Ame Suciati

Faculty of Dentistry, Universitas Padjadjaran, Bandung, Indonesia

Email : fajar.fatriadi@fkg.unpad.ac.id

Abstract

INTRODUCTION: Chlorhexidine gluconate is a commonly used irrigation agent for root canal treatments. However, it is ineffective towards *Enterococcus faecalis* because these bacteria possess the ability to enter deeper layer of tissue beyond dentinal tubules. The increase of bacterial resistancy towards synthetic agents has encouraged a few researches to investigate the anti-bacterial properties of herbs as irrigation agents for root canal, one of which is basil. Basil (*Occinum sanctum*), is a herbal plant with a characteristic aroma that is commonly used as an appetizer. It possesses anti-bacterial, anti-fungal and anti-viral properties. Essential oil obtained from basil possesses high levels of eugenol, which plays a major role in its anti-bacterial property. Basil essential oil is effective towards gram-positive and gram-negative bacteria. **Objective:** This research was carried out to investigate the presence anti-bacterial property in basil leaf essential oil compared to chlorhexidine gluconate towards the growth of *Enterococcus faecalis* ATCC 29212. **Materials and methods:** Initial procedures were to extract the essential oil from basil leaves through distillation. Results from phytochemical tests show that basil contains phenol, flavonoid, triterpenoid saponin, tannin with negative results on steroids. Bacterial tests in this research adapted the microdilution method by measuring Minimum Inhibitory Concentration (MIC) basil leaf essential oil towards *Enterococcus faecalis* ATCC 29212 compared to chlorhexidine gluconate. **Result:** Results from this research showed that the MIC value for basil leaf essential oil was 31,25 ppm while the value for chlorhexidine gluconate was 0,49 ppm. **Discussion:** Therefore, it can be concluded that essential oil from basil leaves posses anti-bacterial effects but are lower than that of chlorhexidine gluconate towards *Enterococcus faecalis* ATCC 29212.

Keywords : *Occinum sanctum*, Anti-bacterial activity, *Enterococcus faecalis*

INTRODUCTION

The success of endodontic therapies highly depend on the eradication of infection-

