PERBEDAAN DAYA HAMBAT OBAT KUMUR EKSTRAK TEH HIJAU *(Camellia sinensis)* DAN METIL SALISILAT TERHADAP PERTUMBUHAN BAKTERI RONGGA MULUT

DIFFERENCE OF INHIBITORY PROPERTIES BETWEEN MOUTHWASH WITH GREEN TEA (Camellia sinensis) EXTRACT AND METHYL SALICYLATE TOWARDS THE GROWTH OF ORAL BACTERIA

ABSTRACT

Background : *Mouthwashes are act as antiseptic, astringent and freshener agent. One leaf of green tea composed of natural ingredients such as Vit C and E as antioxidants along with catechin, and also plenty other substances; Catechin, is a polyphenolic compound acts as antioxidant and antibacterial agent by disrupting bacterial cell membrane, killing bacteria from within.* ***Purposes:*** *To compare the inhibitory properties between mouthwashes with green tea extract and methyl salicylate towards the oral bacteria.* ***Methods:*** *Human subjects were gargling with the sterile aquades, the results collected, taken by 0.1 ml using micropipet, inoculated into BHIB liquid media for 24 hours, standaridized by McFarland 0.5 which equals 1.5 x 10^8 CFU, and moved into MH agar media which divided into 6 areas with one on the center as control area. Six paper discs were soaked in the mouthwashes with 0.5%, 1%, 2% and 4% tea extracts, methyl salicylate, and, PVP-I as control, and latched onto respective areas. The indicator is the Inhibitory Zones formed around each paperdiscs, the areas on which the bacteria couldn't colonize.*

Results: *No Inhibitory Zones were formed on the area with paperdiscs soaked in mouthwashes with tea extracts, nor the one with methyl salicylates, meanwhile, the positive control with PVP-I did grow some Inhibitory Zones on some samples with diameters of 2-3mm width.*

Conclusions: *The tea extract is not proven to be more effective than the methyl salicylate mouthwash to inhibit bacterial growth.*

Keywords : *Green tea extract, methyl saliclylate, Povidone iodine, oral bacterial growth*