UJI INHIBISI PEMBENTUKAN KARIES GIGI OLEH ENZIM GLUKANASE BERDASARKAN GAMBARAN *WHITE SPOT* DAN PREPARAT GOSOK

(CARIES INHIBITION BY GLUCANASE ENZYME BASED ON WHITE SPOT AND HISTOLOGIC SECTION)

ABSTRACT

Background. *Caries is the most common disease in stomatognaty system. The characteristic of caries are progressive and irreversible. Caries is stimulated by plaque in the tooth surface. Glucanase Enzyme is enzyme which is can hydrolized glucan in the plaque. There are three source of glucanase enzym, glucanase from bacteria isolate B7, B5, and B4.* ***Purpose.*** *The aim of the present study was to access the ability of glucanase enzyme to prevent caries and to compare the abiliy of B7, B5 and B4 enzym to prevent caries.* ***Method.*** *The enzym were intra-orally administered to the occlusal fissure teeth of different rat group. Evidence of development of caries was determined by caries depth of histologic section and direct observation of white spot lesion.* ***Result.*** *The result of these study showed that there was no evidence of white spot lesion at positive control, and B5 group in sixth week and eight week date experiment. Based on caries depth, there was a significant difference ($p<0.05$) between rats control negative group with B7, B5, B4, and positive control (flour application). Between positive control, B7, B5 and B4, there is no significant difference.* ***Conclusion.*** *Glucanase enzyme B7, B5, and B4 have ability to prevents progressifity of caries.*

Key words: *Caries prevention, Glucanase, caries depth, white spot*