ABSTRACT

BACKGROUND: Tooth extraction is a common activities performed by dentist which left a wound after it. Active plasma cells which differentiated from B cell may take a role in wound healing activity. Pomegranate has been used in a number of natural medicines since time immemorial. Methanolic extracts of pomegranate peel have also been shown to possess appreciable antioxidant properties owing to the presence of a high content of polyphenols. Polyphenol has been report may enhance the humoral activity and leads the differentiation of B cells into active plasma cells. PURPOSE: To find the role of pomegranate peel extract gel towards the amount of active plasma cells on post-tooth extraction cavia cobaya. METHOD: The research sample consisted of 28 cavia cobaya. The mandibula incisive tooth was extracted then divided into 4 groups and the socket was applied with pomegranate peel extract gel based on concentrations: 2.5%, 5%, 10% and 0% Samples are executed on the 3th day of application to perform histopathological evaluation as well as to count active plasma cells among groups. The result was recorded and analyzed by using One Way ANOVA. RESULT: This research has proven the increased growth of active plasma cells on application of pomegranate peel extract gel. The result showed there is a significant differences between the amount of active plasma cells in concentration 10% and control (p<0.05). CONCLUSION: Extract Peel Pomegranate Gel has been proven may enhance the amount of active plasma cells over tooth extraction on cavia cobaya.

KEYWORDS: Pomegranate peel extract gel, active plasma cells, tooth extraction