BIOKOMPATIBILITAS EKSTRAK LENDIR BEKICOT (Achatina fulica) PADA SEL FIBROBLAS

BIOCOMPATIBILITY OF SNAIL MUCOUS EXTRACT (Achatina fulica)

ON FIBROBLAST CELLS

ABSTRACT

Background: The wound is a body tissue damage due to the injury or trauma that causes disruption of normal continuity of tissue structure. In the field of dentistry is often carried out acts of oral health care that can cause injury, such as scaling, root planning, and curettage. Tissue damage caused by the injury will require wound healing process. One of the natural materials for wound healing is snail mucous (Achatina fulica). Snail mucous contains several important components of which achasin which acts as an antibacterial and acharan sulfate that play a role in stimulating the skin regeneration response. **Purpose:** The purpose of this study is to see the biocompatibility of snail mucous extract on fibroblast cells. Methods: Taking snail mucous by stimulating the snail body surface using electric shock then extracted. Snail mucus extract diluted into 100%; 50%; 25%; 12.5%; 6:25%; 3:13%; 1:56%; 0.78% concentration. Each concentration dropped on a sample of fibroblast cell culture of Baby Hamster Kidney (BHK-21) with Eagles media in microplate then incubated for 24 hours. Then test with MTT-assay and read the result of the absorbance using an ELISA reader. **Result:** The result of the extract is brown viscous liquid with a protein content of 21.81% acharan sulfate. At concentration 12.5% to 0.78% there are more than 50% of cells alive, which means that concentration is not toxic. **Conclusion:** Snail mucous extract is biocompatible at concentration below 12,5%.

Keywords: biocompatibility, Achatina fulica, snail mucous, acharan sulfate