UJI VIABILITAS EKSTRAK DAUN BELIMBING WULUH (*AVERRHOA BILIMBII LINN.)* TERHADAP SEL FIBROBLAS BHK-21

VIABILITY ASSAY OF STARFRUIT LEAVES EXTRACT (*AVERRHOA BILIMBII LINN.)* TOWARD BHK-21 FIBROBLAST CELL

ABSTRACT

Background : *Averrhoa Bilimbii Linn is a tropical fruit that can be found in Indonesia and Southeast Asia Countries. Averrhoa Bilimbii Linn can be used as an alternative medicine because it have antioxidant, antibacterial, and anti inflamatory. Averrhoa Bilimbii Linn used as herbal material due to containing important material such as flavonoid, triterpenoid, saponin and tanin. Flavonoid and triterpenoid are reported to have antibacterial, antioxidant and anti inflamatory that effective as root canal irrigation alternative medicine. Viability assay was one of the biocompatibility test conducted to determine the effect of Averrhoa Bilimbii Linn extract on fibroblast cell before it can be used as herbal medicine.* ***Purpose :*** *this study was aimed to know the concentration of Averrhoa Bilimbii Linn extract that able to maintain the viability of fibroblast BHK-21 cell.* ***Method :*** *this study was design as post test only control group laboratory experiment. Averrhoa Bilimbii Linn was extracted using maceration method with 96% ethanol, then the ethanol was evaporated with evaporating vacum. Before the viability test, Averrhoa Bilimbii Linn extract was made in a series concentration by method of dilution into 10%, 5%, 2,5%, 1,25%, 0,625%, 0,3125% and 0,156% concentrations. Then it were given to the fibroblast cell culture . Viability was observed after 24 hours using MTT assay technique, observed by ELISA reader.* ***Result :*** *The result showed that the extract at concentrations of 5%, 2,5%, 1,25%, 0,625%, 0,3125% and 0,156% had viability cell values allmost same with the control cell.* ***Conclusion :*** *Averrhoa Bilimbii Linn extract can maintained the viability of BHK-21 fibroblast cell at 5%, 2,5%, 1,25%, 0,625%, 0,3125% and 0,156% concentrations.*

Keywords : *Averrhoa Bilimbii Linn, viability, BHK-21 fibroblast cell*