ABSTRACT

The requirements of dental material include not toxic, not irritant, no carcinogenic potential, nor cause an allergic response with the use in oral cavity. The use of Pandanus conoideus Lam is not truly safe as an alternatives drug, because drug can be poisonous at certain condition. The purpose of this study was to know the cytotoxicity of Pandanus conoideus Lam with the different variation of concentration of Pandanus conoideus Lam using MTT assay. MTT assay based on the cellular conversion of 3-(4,5-dimethylthiazol-2-yl)-2,5-di-phenyl-tetrazolium bromide (MTT) into purple formazan crystals by mitochondrial enzymes of metabolically active cells. This formazan product was easily detected by using the cellular conversion spectrophotometer. Analysis was done statistically using one way ANOVA and continued by HSD. The result showed that the increasing concentration of Pandanus conoideus Lam extract solution i.e. 50%, 60%, 70%, 80%, 90% would not increase cytotoxicity, and the percentage of active BHK-21 (Baby Hamster Kidney) cell lines on these concentration remains more than 88%.

Key words: MTT assay, cytotoxicity, Pandanus conoideus Lam