THE USE OF COCONUT WATER TO MAINTAIN THE VIABILITY
FIBROBLAST CELL

ABSTRACT

**Background.** Dental trauma is the damage that regarding dental hard tissues and or periodontal ligament because of mechanical reasons. Avulsed is one of dental trauma namely loss of teeth conditions in their entirety from the pocket. Ideal treatment avulsed tooth is replanting the tooth into the pocket (replanted) immediately after the occurrence of the injury. The success of treatment replanted determined by viability fibroblast cell. Coconut water has a suitability of osmolarity with fibroblast cell. **Purpose.** To determine the effectiveness of coconut water when, it is used to maintain the viability of fibroblast cell. **Method.** BHK-21 culture eagle’s media and 10% FBS are planted in the bottle roux, replaced with new media is divided into micro plate 96 well. Group I is dripped with solution of Hank's balanced salt solution (HBSS), group II is dripped with ordinary coconut water, group III is dripped with green coconut water, group IV is dripped with packaged coconut water (Hydrococo), and group V drops with water (aquades) each 100 µl, the next is reading of absorbance of formazan conducted by spectrophotometry by ELISA reader at a wavelength of 620 nm. **Result.** The result of the research shows that ordinary coconut water higher in maintaining the viability of fibroblast cell compared with green coconut water and packaged coconut water. **Conclusion:** It can be concluded that coconut water can be suggested to be a storage medium avulsed teeth.

**Keywords:** avulsed tooth, fibroblast cell, coconut water.