

PERBANDINGAN PENGGUNAAN SUSU PASTEURISASI, SUSU UHT, DAN SUSU MURNI DALAM MEMPERTAHANKAN KEHIDUPAN SEL FIBROBLAS

COMPARISON OF USING PASTEURIZED MILK, UHT MILK, AND FRESH MILK IN KEEPING THE LIFE OF FIBROBLAST CELL

ABSTRACT

Background: Traumatic injury was common in children, it could make alvused tooth. Avulsion prevalence studies is 0.5 to 16% of cases of traumatic injury, especially in children aged 7-9 years. Treatment for avulsion was by doing replanted immediately. If it could not be replanted immediately, avulsion tooth should be stored in a storage medium to keep the fibroblast cell alived. HBSS was the best medium, but not found in everyday life. Other media which could substitute HBSS was Milk. Several types of milk that well known such as pasteurized milk, UHT milk, and fresh milk. The composition of those were not much different than HBSS. Previous research showed the fibroblast cell number alive in pasteurized milk and UHT milk. Meanwhile, fresh milk was pretty much known to the public, and the composition had no different with other milk. Therefore, the researchers wanted to see what kind of milk that is most effective using a different method than previous research. **Purpose:** Among alternative media pazteurized milk, UHT milk, and fresh milk which is more effective for a storage medium. **Methods:** By using BHK-21 fibroblast cells as periodontal ligament, carried out a test of toxicity of each media using the MTT assay. So it brought significant differences ($p < 0.05$) on the respective media except pasteurized milk. **Result :** Pasteurized milk had more fibroblast cell number alive than UHT milk and fresh milk. **Conclussion:** Pasteurized milk had more live fibroblast cells among other media, so it could be concluded that pasteurized milk was the most effective storage medium between UHT milk, and fresh milk. Fresh milk has the lowest of living cells, so it could be concluded that fresh milk was not effective storage medium.

Keyword : storage medium, fibroblast cell, pasteurized milk, UHT milk, fresh milk.