

IR-PERPUSTAKAAN UNIVERSITAS AIRLANGGA
**PERBANDINGAN PUTIH TELUR DAN HBSS SEBAGAI MEDIA
ALTERNATIF PENYIMPANAN GIGI AVULSI**

(PENELITIAN EKSPERIMENTAL LABORATORIS)

**COMPARISON OF EGG WHITE AND HBSS AS ALTERNATIVE TOOTH
AVULSION STORAGE**

(AN EXPERIMENTAL LABORATORY)

Abstract

Background. Orofacial trauma might caused another consequences such as tooth fracture and tooth avulsion. Replantation is one treatment option in cases of avulsed teeth. The long-term success of the reimplanted teeth is related to the maintenance of periodontal ligament (PDL) cell viability. Therefore, to maintain periodontal ligament cells and medium availability, media were required. Hen egg whites had appropriate pH and osmolarity to maintain cell viability and easy to obtained **Purpose.** To determine effectivity of hen egg white as an alternative storage medium avulsed teeth. **Method.** Twenty-four *Cavia Cobaya* teeth are extracted and divided into 6 groups, three experimental groups (groups A, B, C) and three control groups (group D, E, F). Each medium will be given maceration treatment 6 hours, 9 hours, 12 hours. Experimental group media used is egg white, and control medium group used HBSS. Furthermore, fibroblasts contained in the periodontal ligament was cultivated with Versen trypsin solution, and labeled using 0.4% trypan blue then counting with hemocytometer in the light microscope. **Results** .There was no significant difference between six hours maceration between hen egg white and HBSS ($p < 0.05$) . average per centation of vital fibroblast on 6 hours maceration was 90,0473 % , 9 hours was 83,7675 % , 12 hours was 64,2675 % .**Conclusions** hen egg white may able to maintain PDL fibroblas cells 6 until 9 hours and effective when used as a medium alternative storage avulsion teeth .

Keyword: tooth avulsion, fibroblast, alternative storage media, hen egg white