

## Potensi Proliferasi Sel Pulpa Gigi Sulung

### *(Potential of Deciduous Dental Pulp Cell Proliferation)*

#### ABSTRACT

**Background:** Tissue engineering research in dentistry has undergone a lot of progress with stem cells as the primary key. Stem Cell in Human Deciduous Teeth exfoliated (SHED) is known as a highly proliferative population which the cells are derived from tissues that are easily obtainable, named extracted deciduous dental pulp. An excellent techniques and ability required to isolate the deciduous dental pulp cells. The laboratory facilities and treatment of different operators may also affect the potential proliferation of deciduous dental pulp cells. Researchers used enzyme trypsin as material to shed deciduous dental pulp cells to replace the collagenase enzyme which is used by previous researchers in foreign countries.

**Purpose:** This study was conducted to determine the potential of deciduous dental pulp cell proliferation as a source of stem cells (SHED) with enzyme modification and variation in the availability of tools, lab facilities and operators. **Methods:** Do deciduous tooth extraction with indications for treatment revocation ortodonsia using sterile forceps. Pulp cells taken by cutting lengthwise on isisal and apical parts of deciduous teeth. Pulp cells grown and cultured in a 10 cm dish to reach sufficient numbers which can be counted using a hemocytometer chamber. Calculations done till reach the fourth passage. **Result:** The results of the calculation of the pulp cell proliferation indicates that the amount of pulp cells increased significantly. **Conclusion:** Modified form of the enzyme trypsin to replace the use of collagenase enzyme can still make the growth and development of deciduous dental pulp cells good and has a high proliferation ability.

**Keyword:** proliferation, deciduous teeth, cell dental pulp, hemocytometer chamber