

TERAPI RAT BONE MARROW STEM CELL PADA TIKUS (*RATTUS NOVERGICUS*) MODEL PERIODONTITIS KRONIS TERHADAP EKSPRESI TUMOR NUCLEAR FACTOR α (TNF α)

(THERAPY RAT BONE MARROW STEM CELL IN RATS (*RATTUS NOVERGICUS*) MODEL CHRONIC PERIODONTITIS OF TUMOR NUCLEAR FACTOR α (TNF α))

ABSTRACT

Background. Periodontitis is an inflammation or infection of the tissues supporting. Incidence of periodontitis can cause the gingiva , periodontal ligament and alveolar bone resorption resulting in abnormalities undergo tissue supporting the teeth. Periodontitis is caused by plaque that contains bacteria , bacterial products and food scraps. The increase in the occurrence of lesions caused by inflammation of the gingival. Tumor Nuclear Factor α (TNF- α) is an important cytokine that plays a role in the mechanism inflamasi. **Purpose.** Therapy proves Rat Bone Marrow Stem Cell Tumors can decrease the expression of Nuclear Factor α , proving antibiotic therapy with Rat Bone Marrow Stem Cell in the rat model of chronic periodontitis may decrease tumor expression of Nuclear Factor α , proving antibiotic therapy with Rat Bone Marrow Stem Cell better than the only the provision of rat Bone Marrow Stem Cell model of chronic periodontitis in rats to decrease tumor expression of Nuclear Factor α . **Method.** In this study makes an animal model of rat chronic periodontitis. The study was conducted by the research phases as follows: Preparation of rat model of chronic Peridontitis , Preparation of culture Rat Bone Marrow Stem Cell from the bone marrow of mice, rats Therapy Peridontitis models with Rat Bone Marrow Stem Cell intravenous on the tail. **Results.** Rat Bone marrow therapy Stem Cell 10 6 decreased the expression of TNF- α can be seen from the results of the analysis man whitney, that there is no significant difference. While the administration of antibiotics and Rat Bone marrow Stem Cell 10 6 can decrease the expression of TNF- α , but there are significant differences. **Conclusion.** Therapy Rat Bone marrow Stem Cell 10 6 can decrease the expression of TNF- α nicer that just given stem cell therapy compared to therapy with antibiotics added and stem cell .

Key word: Rat Bone Marrow Stem Cell, Tumor Nuclear Factor α , Chronic Periodontitis.