

# EFEK PEMBERIAN SUSU KEDELAI PADA PENINGKATAN JUMLAH OSTEOLAST TULANG ALVEOLAR TIKUS WISTAR YANG DIINDUKSI

*A. actinomycetemcomitans*

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OSTEOLAST; A.ACTINOMYCETEMCOMITANS

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## ABSTRACT

**Background:** Periodontitis can be caused by *Aggregatibacter actinomycetemcomitans* bacteria. This bacterium induces inflammation in periodontal tissues and can lead into periodontal tissues breakdown and destruction of the alveolar bone and decrease the number of osteoblast cells. The present studies was planned to evaluate whether soy milk has effect on increasing the number of osteoblast in *Aggregatibacter actinomycetemcomitans*-induce periodontitis in male wistar rats. **Purpose:** The aim of this study is find out the soy milk's effect on the elevation of osteoblast in alveolar bone of wistar rats induced *A. actinomycetemcomitans*. **Methods:** In this study, there are 27 male wistar rats were divided into three groups: control, AA, and AA with soymilk. In AA group, *Aggregatibacter actinomycetemcomitans* bacteria was given in first, third, fifth day of one month experiment. In AA and soymilk group was given both *Aggregatibacter actinomycetemcomitans* bacteri and soymilk. At the end of one month, the rats were sacrificed, the alveolar bone tissue were dissected and extracted, and the extracts were analyzed for osteoblast level by microscope using hematoxylin eosin routine staining. **Result:** AA group resulted in significantly reductions in the alveolar bone tissue level of osteoblast than the control ( $p < 0.05$ ). Soy milk group show significant elevation of osteoblast compared to AA group ( $p < 0.05$ ). And the result of the present study indicates that soy milk show significant elevation in alveolar bone level of osteoblast in *Aggregatibacter actinomycetemcomitan*-induced experimental periodontitis. **Conclusion:** Soy milk administration for a month showed elevation of osteoblast number in alveolar bone of wistar rats induced *A. actinomycetemcomitans*.

**Keywords:** Periodontitis, soy milk, osteoblast, *A.actinomycetemcomitans*