ABSTRACT

Background. Bone graft has an important role to support the structure and function of alveolar bone. The use of bone graft used to support bone regeneration in large bone defects caused by trauma or surgical procedures. Bovine bone is one of the alternative bone grafting material that widely used in dentistry and positive results have been generally observed after their application. The chance of success in the used of bovine bone can be improved by providing blood. This is possible because of the influence of the velocity of bovine bone adsorption to blood. Blood stimulate osteoblasts activity in bone formation from bone remodelling process.

Purpose. To measure the velocity of bovine bone 355-710 µm adsorption to blood (type O).

Material and Method. Twenty eight samples of demineralized bovine bone 355-710 µm were divided into two groups. The first fourteen samples were inserted to Natrium klorida 0,9% solution (as control). The next fourteen samples were then inserted in the blood (type O).

Result. There is no significant difference between both group, p=0,266 (p<0,05). The average velocity of bovine bone 355-710 µm adsorption to blood (type O) is 0,051 mm/s whereas to Natrium klorida 0,9% solution 0,072 mm/s.

Conclusion. The average velocity of bovine bone 355-710 µm adsorption to blood (type O) is 0,051 mm/s lower than to Natrium klorida 0,9% solution.

Keywords: demineralized bovine bone 355-710 µm, velocity of adsorption, blood (type O)