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BISPHOSPHONATE: USE IN THE FIELD OF DENTISTRY

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Bisphosphonates are a class of drugs that prevent the loss of bone mass. It inhibits the resorption of bone by encouraging osteoclast to undergo apoptosis. Considering that oral diseases and dental procedures may lead to teeth instability whereas alveolar bone is a main tooth supporting tissues, forceful indications of these drugs are for preventing and minimizing bone resorption following oral surgery and relapse movement in orthodontic treatment. Clinical use of bisphosphonates in dentistry limited by risk of osteonecrosis of the jaw (ONJ) and systemic effects such as an increase of the bone mineral density in another bone area. Topical application with local effect would seem the choice of administration route. Recent studies of topical bisphosphonate not yet at clinical use, but some experimental laboratory prove that this drug would be beneficial in a wide scope of dental treatments.

Key words: Bisphosphonates, alveolar bone, topical administration

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THE UTILIZATION OF GAMBIR IN PERIODONTOLOGY

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Gambir is a dry extract of leaves and young twigs of gambier plants (*Uncaria gambier* (Hunter) Roxb, which is a specific commodity of West Sumatra. Traditionally gambier used as betel nut ingredients, diarrhea medicine, burn treatment and mouthwash-gargle in sore throat. The Content of the gambir is catechin, Tannates kateku acid, tannins, alkaloids, and waxes. Potential antibacterial activity of antibacterial gambier encourages useful research in the field of dentistry, especially midwives in Periodontology. Some gambier extract preparations have been made in various dosage forms such as mouthwash, toothpaste, gel, irrigation solution, tea and as active ingredients in the periodontal dressing. The research has been conducted to study about the effect of antibacterial against plaque bacteria in the mouth that affects the healing of gingival tissues. Utilization the outcome of research about gambier in dentistry, such as production in a variety of preparations for market purpose, expected to increase the value added of gambier which also have an impact to the farmers.

Key words: gambir, antibacterial, periodontology

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RADIOGRAPHIC EVALUATION OF ALVEOLAR BONE HEIGHT ON PERIODONTITIS THERAPY USING ALLOGRAFT (DFDBA) COMPARED TO XENOGRAPH

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Introduction: Periodontitis is an inflammation and infection of the supporting tissues of the teeth involving periodontal ligament, cementum and alveolar bone. Untreated periodontitis will lead to loss of teeth. One of the treatment of periodontitis is flap operation combination bone graft and the goal of this treatment is to enhance periodontal tissue regeneration, by surgical periodontal therapy and combination with allograft (DFDBA) and xenograft. The study was clinical experimental in periodontitis patients, which had been treated by flap operation combination with allograft (DFDBA) and xenograft. **Objectives:** To evaluate the radiographic image in increasing of alveolar bone height in periodontitis therapy with flap operation and combination allograft (DFDBA) compared to xenograft. **Materials and Methods:** Ten Subjects were taken the conventional intraoral radiograph with paralizing techniques on the posterior teeth with bite registration before and after flap operation and combination bone graft material (xenograft or allograft (DFDBA)). The observation was managed by two observers to assess the alveolar bone height using computer. **Result:** The mean of increasing of alveolar bone height in xenograft application was higher than allograft (DFDBA) on periodontitis therapy. There were no statistically significant difference in the mean of increasing alveolar bone height on the application of allograft (DFDBA) compare to xenograft ($P = 0,17$). **Conclusion:** .Allograft (DFDBA) had the same result in the increasing alveolar bone height of radiographic evaluation compared to xenograft after three months flap operation and combination bone graft.

Key words: allograft (DFDBA), xenograft, alveolar bone height, radiographic