

Preparation and Characterization evaluation of adherence membrane using a bio-material for bone tissue regeneration

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Bone tissue has a good ability to regeneration. However, bone destruction occurs for a variety of reasons it is necessary that additional treatment such as bone graft. Conventional adherence membrane have to remove surgery after bone formation. And, there is no difference to generate the tissue compared with bio-degradable adherence membrane. Gellan gum as bio-polymer is recently made to many studies and has been utilized for medicines using a tissue generation and hemostasis effect. In this study, we develop a superior bone regeneration membrane effect by combining biodegradable polymer and biocompatible inorganic material. We use in vivo micro-CT to evaluate the effect of adherence membrane on measurement of bone volume. Additionally, Degradation rate is measured by incubating membrane in pH7.4 of PBS. Cytotoxicity is measured to in vitro method by MTT assay.