



Comparison of shape-retaining and particle-type bone graft materials in Alveolar Ridge Preservation

: a prospective randomized controlled clinical study

Research center Yonsei university dental hospital / Dankook university dental hospital

Project period : 2021.6 ~ 2022.12

Total Subject : 40 person

Progress status : Complete

Background & Purpose

As a result of histological analysis, there was a significant difference in the ratio of NBA between groups, and there was no significant difference in the ratio of RMA and CTA between groups.

Method

40 subjects were randomly assigned to an experimental group and a control group in a randomized and blinded. Selected as a target for patients who are expected to have a 3-wall or 4-wall extraction after tooth extraction. After tooth extraction, Use 0.5g of S1 bone graft material 1-2 pieces and Bio-Gide with a size of 13*25mm. Implants are placed 5-6 months after tooth extraction, and during surgery, bone from the tooth extraction and central area is collected and fixed in formalin using a trephine bur.

Objectives

When a wide area of bone defect or vertical bone defect occurs during tooth Alveolar ridge preservation, the membrane and particulate bone may have difficulty maintaining their shape, and tissue regeneration and healing may be delayed due to poor shape stability. On the other hand, the shape-retaining bone graft material is useful for alveolar ridge augmentation because it has excellent adhesion and fixation to the bone due to the operator's flexible handling. In addition, alveolar ridge augmentation can be performed without patient discomfort such as shortening time and blood collection. For the purpose of evaluating product performance through bio-Oss and comparative clinical studies, this clinical study aims to compare and evaluate the difference in radiological and histological results of alveolar ridge preservation using two different particulate bone and sticky bone.

Clinical case Preview (Using S1)

Subject 1



POD-30Days

Subject 2



Tooth extraction

POD-10Days

POD-30Days

Subject 3

Tooth extraction



POD-10Days



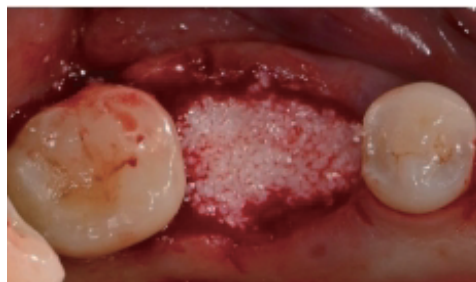
POD-30Days



POD-5months

Subject 4

Tooth extraction



After ARP



POD-30Days

Clinical case Preview (Using Bio-Oss)**Subject 5**

Tooth extraction



After ARP



POD-30Days

Subject 6

Tooth extraction



After ARP



After ARP



POD-30Days

Subject 7

Tooth extraction



After ARP



POD-30Days