

Bone Graft Substitute

Introductions

Far Eastern Group has developed a bone graft substitute that is intended to be filled into bone defect (Fig.1). The filler provides structural support to avoid being hollow but is not for bone tissue stabilizing. After filling into the site of bone defect, the bone graft substitute paste will self-harden in situ; it can be replaced with natural bone gradually during the healing process (Fig.2 & 3).

Traditional bone cement needs longer time to solidify and needs to be blended all the time while using, so it is uninjectable and usually can only be packed on the defect directly. However, our product is improved and suitable for injection because of the solidification time of our product is shorter, and the materials of this product are easy to mix. (Fig. 4). Using this product can effectively decrease infection of operation and reduce user' s discomfort.



Fig.1. Bone graft substitute set

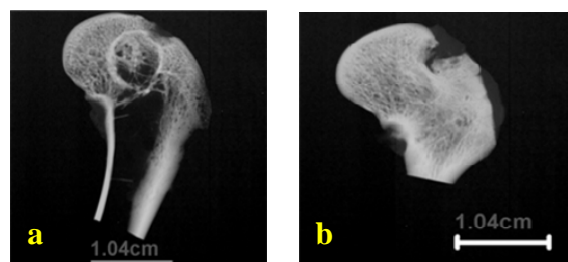


Fig.2. Radiography at 12th week.

(a) The defect is unhealed without any treatment.

(b) The defect is almost healed after using the bone graft substitute.

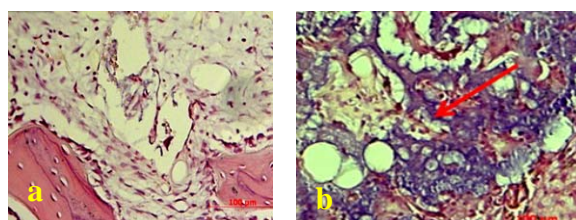


Fig.2. H&E stain at 12th week.

(a) The case is without any treatment.

(b) The case has cured by the bone graft substitute

The cell number in case (b) is much more than case (a)



Fig.4. The bone graft substitute is easy to inject by syringe.

Product Features

Natural

Up

Resorbable

Osteoconductive

Safety

biological safety test : pass the biological safety test by SGS

- ✓ Cytotoxicity
- ✓ Intracutaneous Irritation
- ✓ Skin Sensitization Test
- ✓ Acute Systemic Toxicity
- ✓ Subacute Intravenous toxicity
- ✓ Genotoxicity
- ✓ Bone Implant
- ✓ Heavy metals
- ✓ pyrogenic test

Applications:

Bone defects caused by surgery, trauma, infection, tumor resection, joint reconstruction and pedicle screw.