

Bone Graft Substitute

✚ Introductions

Far Eastern Group has developed a bone graft substitute that is sintered by 1100°C with calcium phosphate – one of the components of natural bone. The bone graft substitute has both high porosity and high structure strength. We can control the pore size and the shape of the product by novel sintering technology (Fig.1).

High porosity of the bone graft substitute can help osteoblast adhesion and migration (Fig.2), and high structure strength can provide temporary support to avoid second damage. During the healing process, the bone graft substitute will be replaced by natural bone gradually.



Fig.1. Bone graft substitute

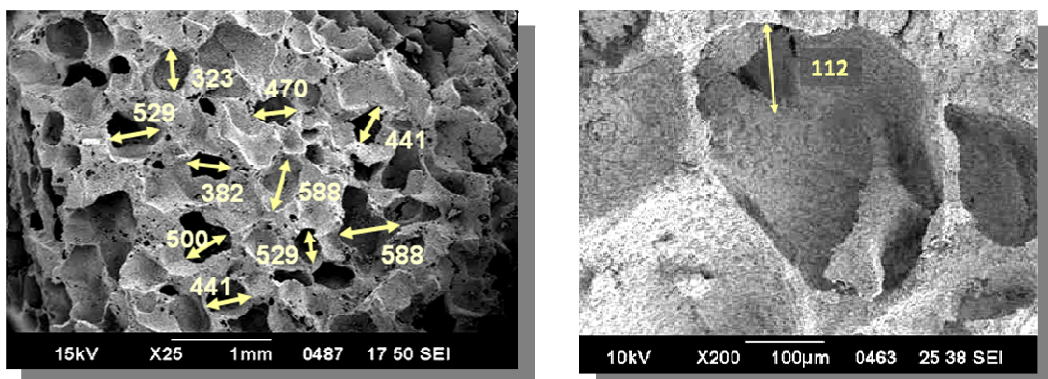


Fig.2. SEM image of bone graft substitute

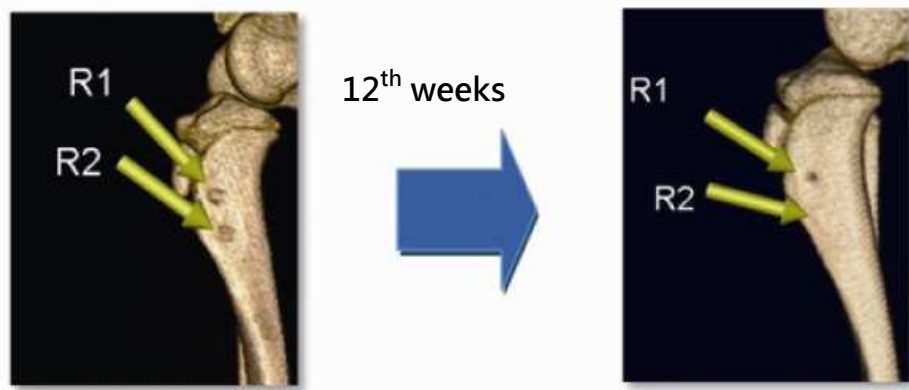


Fig.3. Preclinical animal testing results

Radiography at 0th and 12th week, and the defect was almost healed with our product. (R1) Commercial product (R2) Our product

✚ 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