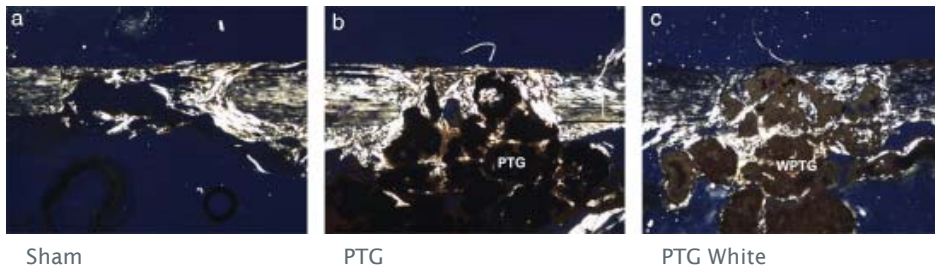


Porous Titanium Granules Promote Bone Healing and Growth in Rabbit Tibia Peri-implant Osseous Defects

Johan Caspar Wohlfahrt et al. Clinical Oral Implants Research: 2010 Feb;21(2):165-73



Test device with PTG (right) and sham/empty (left)



- ❖ In vivo rabbit study, micro CT, histology, wound fluid analysis, RNA isolation
- ❖ Indication: Calibrated defects in rabbit tibia
- ❖ Aim: To investigate the osteoconductive properties and biological performance of titanium granules in osseous defects adjacent to titanium implants

❖ Results

Compared to sham the porous titanium granules had significantly more new bone formed that grew both through the porosities and onto the implant surfaces

❖ Conclusions

*The granules are an osteoconductive graft material
The ultra-porous granules provide a safe osteoconductive scaffolding*

❖ Discussion

*Non-resorptive properties of the granules may be an advantage because osseous healing and maturation is an extensive process.
Materials should not disappear before its completion*