Injectable biphasic calcium phosphate bioceramic: The HYDROS® concept

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Résumé en anglais	A new biphasic calcium phosphate ceramic material has been developed in our laboratory. It is composed of 60% of hydroxyapatite and 40% of β-tricalcium phosphate, based on three granulometries (submicron, round microporous 80-200 mum and macro microporous 0.5-1 mm particles) and hydrated with water leading the formation of a putty filler for bone repair. Biocompatibility and osteogenicity were tested by filling femoral epiphyses critical size bone defect and lumbar muscles in rabbit. After 3, 6 and 12 weeks of implantation, explants were treated for histology. Results revealed the biocompatibility of the material and intensive resorption of the submicron particle fraction followed by important bone ingrowth whereas osteoconduction was provided by the larger particles.
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