ABSTRACT.
In order to ensure an adequate space where new bone can be formed in guided bone regeneration (GBR), most surgeons fill bone defects with biomaterials. In this work we evaluated new bone regeneration in 10 patients using only a blood clot protected with titanium grids (Bone System, Italy) and non-resorbable membranes, without any filling material. A manual measurement of the size of the bone defect, using a plastic probe, was performed at 2 surgical steps. After 5 months of treatment, a biopsy was taken from each patient, fixed and embedded in PMMA, examined microradiographically and morphologically to evaluate the newly-formed bone. Our results showed a good repair of the defects by bone regeneration (about 85% overall), high mineral density of new bone around the implants after 5 months, and steady state deposition processes. These results in GBR, without filling material, appear very promising for implantology and reconstructive odontostomatology practice.


Guided bone regeneration using titanium grids: report of 10 cases.

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