



Reference **OP-BI1003001P1**

Publication date and location

**March 4-6, 2010
Orlando**

Event

**The Formula for Predictable
Implant Success – March 4-6, 2010**

Headline scientific research

**Guided Bone Regeneration with
Autologous Bone and e New
Titanium Membrane (VBR)**

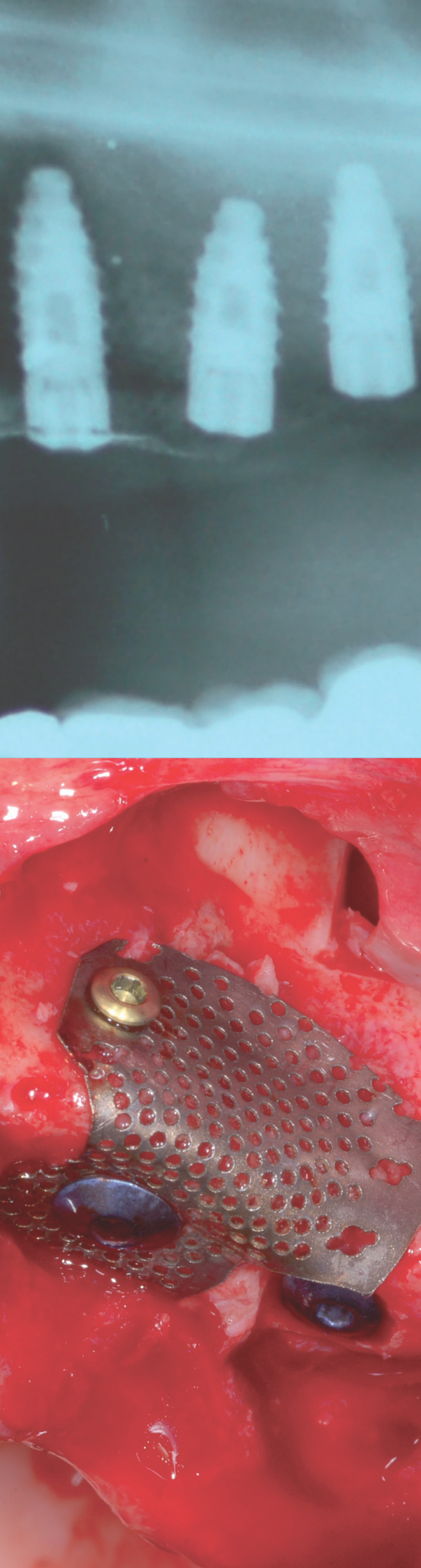
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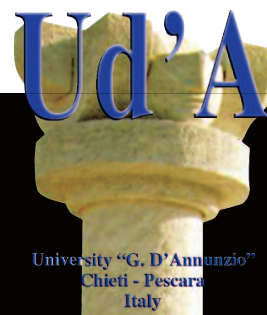
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01 Poster Bone Regeneration VBR





Guided Bone Regeneration with Autologous Bone and e new Titanium Membrane (VBR)

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INTRODUCTION

Guided bone regeneration (GBR) has been used for the regeneration of bone in conjunction with the placement of oral implants. The guided bone regeneration is based on the use of a membrane that, acting as a mechanical semi-waterproof barrier, excludes the connective and epithelial cells from the surgical repair site and, at the same time, favours the osteopromoting cells invasion. The fundamental conditions to obtain the bone regeneration are:

- highest contact surface between the surrounding bone and the blood clot
- highest blood clot stability (space making effect)
- minimal damage to the overlying soft tissues.

AIM

The aim of this work was:

- 1) a clinical study of the bone healing of periimplant defects treated with autogenous bone graft and a new titanium membrane VBR (Valve Bone Regeneration, Oralplant, Cordenons, Italy)
- 2) an evaluation of the space making capability.

MATERIALS AND METHODS

Ten partially edentulous patients received a total of 25 implants with a rough TPSS (Titanium Pull Spray Superficial) surface.

CONTROL GROUP: 13 implants were inserted in sites with adequate bone volume;

TEST GROUP: 12 implants showing after placement periimplant defects treated with autologous bone graft stabilized with VBR.

- A 2-year clinical and radiographical follow-up was performed.
- Sutures were removed 14 days post-surgery;
- Surgical re-entry for the VBR membrane removal and healing screw application occurred after about 4 months. In the same day defect filling has been measured.

RESULTS

- No important soft tissue complications (infections) were observed during the healing time.
- Only 1 patient showed a dehiscence with membrane exposure but without inflammatory signs at 2 months;
- At re-intervention, in all cases of test group, the space under the VBR membrane was completely filled by tissue presenting the macroscopic features of mature bone.
- It was not possible to probe that tissue → vertical regeneration mean value: 5,2 mm.

DISCUSSION

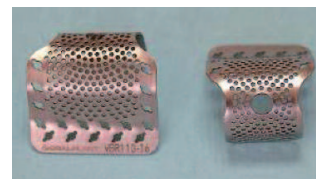
The clinical results of the present study showed that autogenous bone graft stabilized with VBR titanium membrane and simultaneous implants placement **did not performed differently** from implants placed into native bone with respect to:

- periimplant soft tissue healing;
- marginal bone height;
- implant survival (100%) during 2 years follow up.

In all the examined cases, at the 2-year follow-up a good esthetic outcome and patient satisfaction was evident.

CONCLUSION

The clinical results of this study showed that autogenous bone graft stabilized with VBR could be successfully used to treat periimplant bone defects at the time of implant placement.



Valve Bone Regeneration, 13-16 mm size

