



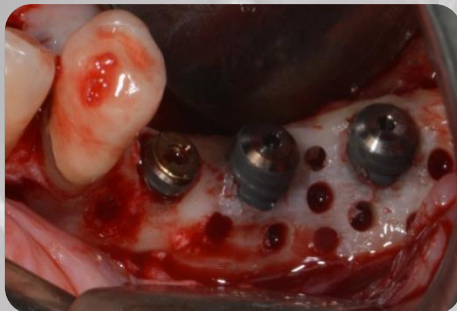
## Clinical outcomes after Guided Bone Regeneration (GBR) with d-PTFE Ti-reinforced membranes versus Ti-meshes plus collagen membranes.

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The aim of this RCT is to compare 2 GBR procedures evaluating surgical and healing complications, implant primary stability and newly-formed bone. Forty partially edentulous patients were randomly treated by d-PTFE membranes (A) or Ti-meshes + cross-linked collagen membranes (B) with simultaneous implants placement. After 9 months of submerged healing, all clinical variables were recorded and analyzed to reveal statistically significant differences ( $P > 0.05$ ).



**Fig.1 – Implants placed in bone defect with perforation and bleeding of narrow space**



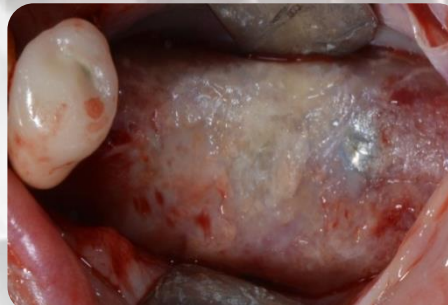
**Fig.2 – Application of mixture of particulated autogenous bone and Encore allograft**



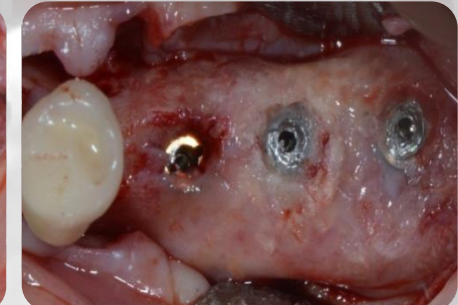
**Fig.3 – Lingual and buccal fixation of Cytoplast Ti-250 XL membrane**



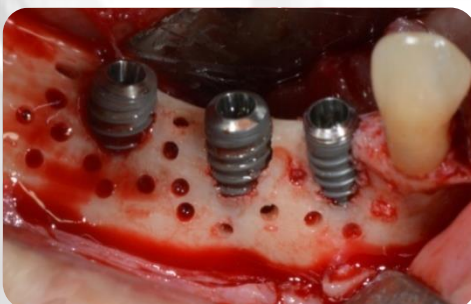
**Fig.4 – After a follow-up of 9 months, the second surgical phase was reported**



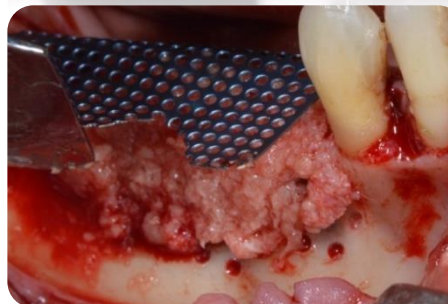
**Fig.5 – Removal of Cytoplast Ti-250 XL membrane and exposure of newly-formed bone**



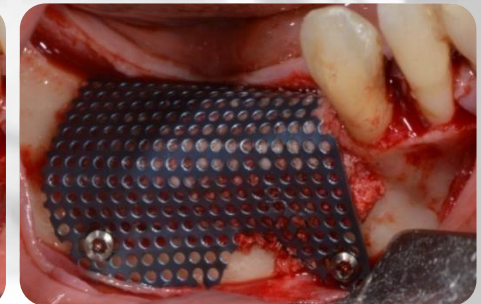
**Fig.6 – Absence of peri-implant bone defect And measurement of vertical bone gain**



**Fig.7 – Implants placed in site defect with perforation and bleeding of narrow space**



**Fig.8 – Application of mixture of particulated autogenous bone and Encore allograft**



**Fig.9 – Lingual and buccal fixation of 0.2-mm thickness titanium mesh (MT-20-46 DeOre)**



**Fig.10 – After a follow-up of 9 months, the second surgical phase was reported**



**Fig.11 – Removal of Titanium mesh and exposure of newly-formed bone**



**Fig.12 – Absence of peri-implant bone defect And measurement of vertical bone gain**

No statistically differences were reported ( $P = 0.05$ ). 99.0% of implants showed a primary stability. Surgical and healing complication rates were 5.0% and 15.9% in group A; 15.0% and 20.0% in group B, respectively. In group A, the vertical bone gain was  $4.3 \pm 1.2$  mm (range 2.3 – 6.5 mm); similarly, in group B, the vertical bone gain was  $4.2 \pm 1.1$  mm (range 1.8 – 6.8 mm).

No statistical differences were observed between the 2 study groups.