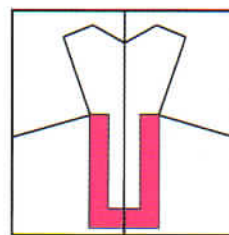


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**BRIGUGLIO F, ISOLA G,
SIDOTI PINTO GA**

Department of Odontostomatology, University of Messina

**CLINICAL AND STATISTICAL EVALUATION ABOUT
THE MEMBRANE EXPOSURE IN MAXILLA
VERTICAL GBR TECHNIQUE: ANALYSIS
OF THE POSSIBLE CAUSES**

OBJECTIVES: The significance of early membrane exposure on the regenerative outcome in guided bone regeneration (GBR) procedures is somewhat controversial. Several clinical trials have shown better response when the membranes remained submerged (S) compared to those that have become exposed (E) during healing. Other studies have failed to show any such difference. The following work aims to evaluate the incidence and extent of possible membrane exposure in the procedure of Guided Bone Regeneration of the upper maxilla with e-PTFE with titanium reinforcement by means of clinical - statistical analysis.

MATERIALS AND METHODS: The study also aims to understand which factors cause this complication with reference to the side of the defect, the presence or otherwise of teeth nearby, the immediate or delayed insertion of implants and finally the anatomical peculiarities of soft tissue in the upper arch. 30 patients were chosen for the study.

RESULTS: During the periodical observation of the patients, two cases of exposure of the membrane were revealed, both occurring during the first two post-operative weeks, of dimensions between 5 and 8 mm.

CONCLUSION: The anatomy of soft tissue, the defect morphology, the flap and incision design and the surgeon capacity have to be carefully considered if guided bone regeneration is planned. In such cases, alternative treatment methods should be considered.

**BRUTTO D,
CANTALUPO MILAZZO D,
SINATRA F, PAPPALARDO S**

Università degli Studi di Catania. Dipartimento di Specialità medico-chirurgiche, Sezione di Odontostomatologia II

**DIFFERENT TYPES OF BIOMATERIALS
AND REGENERATIVE BONY SURGERY:
A STUDY IN VITRO**

OBJECTIVES: the purpose of this study has been to conduct an analysis to the SEM with the purpose to appraise the influence of the dimension of the diameter of the pore of the scaffold on the biological-molecular interaction among the cells simil-osteoblastiche MG63 and four biomaterials with different dimensions of the pore: polylactic-co-glycolic acid (PLGA), bovine deproteinized bone (DPBB), equine bone (EB), demineralized bone matrix (DBM).

MATERIALS AND METHODS: Through the observations effected to the SEM and from the microanalysis to the X rays, it is possible to deduce as the morphology, the proliferation of

the cells MG63 are influenced in different way by the porous structure of the various used biomaterials as substratum of growth.

RESULTS: the DBM has represented the best substratum of growth with a more intense adhesion of the cells MG-63.

CONCLUSIONS: the strong osteoconductive effect, observed in the human DBM is linked to the presence of the organic component while, the osteoinductive effect is linked in particular way to the presence of the BMPs.

**CANTALUPO MILAZZO D,
BRUTTO D, MARANGIO F,
SINATRA F, PAPPALARDO S**

Università degli Studi di Catania. Dipartimento di Specialità medico-chirurgiche, Sezione di Odontostomatologia II

**DIFFERENT TYPES OF BIOMATERIALS
AND REGENERATIVE BONY SURGERY:
A STUDY IN VITRO**

OBJECTIVES: the aim of this work is to study the osteopromoter qualities of equine bone on MG-63 osteoblast-like cells observing: the adhesive capacity and the morphological modifications of such cells following their interaction and the cell growth of such fragments, the FA (phosphatase alkaline) expression, to verify the presence of an eventual mineralization process in act, indicating a probable osteoinductive and osteodifferentiation effect of such a graft.

MATERIALS AND METHODS: Fragments of deantigenated equine bone, were used to test their osteopromoter properties on MG-63 osteoblast-like cells with the help of a SEM.

RESULTS: After 7days the MG-63 cells, grown with the presence of biomaterials, begin to colonize the fragments. After just 15 days, the cells show a greater adhesion the granules the surfaces are smooth and there are numerous psuedopods and FA enzyme activity. A radiographic microanalysis shows numerous exocytose blisters found on the cytoplasmatic membrane of the osteoblast-like cells grown on the biomaterial.

CONCLUSION: Equine bone, would promote the attachment and the differentiation of the bone cells, permitting a favourable biomaterial/cellular interaction, so as to support their growth and functionality.

CAPPELLO A, OLIVO A

Medical Center Padova s.r.l.

**ZYGOMATIC FIXTURE: A GREAT IMPROVEMENT
TO QUALITY OF LIFE**

CASE/CASES PRESENTATION: In daily practice we often have to treat patients in which a severe bone loss, due to resorbition or sinus pneumatization, require bone graft to restore convenient anatomical situation to place implants. This procedure needs a long time and, at least, 2 to 3 surgery to arrive at the