Aim of the study. Evaluation of minimally- invasive method of harvesting the cortico-cancelous graft from iliac crest with using cylindrical device.
Case report. The study was axed on a patient of 34 years old, who suffered an accidental fall trauma at the age of 22, resulted in avulsion of superior incisors with horizontal and vertical defect of alveolar bone. To restore the defect, a bone augmentation using GBR technique with particulated autogenic and xenogenic grafting material has been performed, in relation of 50/50%, 7 cm3 in volume. The autograft, harvested from iliac crest with minimally- invasive approach, was particulated in bone-mill. For the graft stabilization, a resorbable membrane fixed with screws was used.
Results. The wound healing in receptor site took place in conventional terms, without peculiarities, but on the donor site a faster healing and an insignificant scar formation has been noticed. The clinical and radiological examination (panoramic X-ray, CBCT) at 3 month post-operative period showed a good bone volume formation, absence of complications both on the donor and receptor sites. The advantage of the used method comparatively to the classical one consists in following: the incision line reduction, limited decolation with minimal trauma of soft tissues; directed bone graft harvesting in the inter-cortical space, that has reduced the traumatic impact on iliac crest, avoided fracture, hematoma, peritoneum perforation or abdominal organs hernia. By this way, the morbidity of donor site has been significantly reduced and allowed early rehabilitation of the patient.
Conclusions. The minimally- invasive method of iliac crest bone harvesting is easy and rapid, well-accepted by the patient and with good results and reduced morbidity.
Key words: autogenous bone, GBR- Guided Bone Regeneration, minimally- invasive

285. CONTOUR BONE AUGMENTATION IN IMPLANT-PROSTHETIC REHABILITATION

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Introduction. In cases of moderate lateral atrophy of the crest bone splitting, sausage technique or other grafting procedures like bone blocks are recommended. However, in case of ridge expanding, subcrestal positioning of implants is necessary while in case of bone blocks the terms of rehabilitation are longer.
Aim of the study. To evaluate the possibility of contour buccal grafting with simultaneous implants placement in one and two surgical steps.
Materials and methods. The study was performed on 5 patients in which 10 implants were installed in one and two surgical steps in the lateral sides of the jaws. Due to horizontal bone atrophy, grafting procedures were performed with simultaneous implants placement. In one case, collagen membrane was used to isolate the grafting material and non submerged technique was applied for implant. In the others, implants were installed in one and two surgical steps with grafting material (collagen and hidroxyapatite) without collagen membranes. At the end of healing, for the implants installed in two-steps, the second stage was performed and the evaluation of the grafted volume was appreciated. In cases with one step protocol, the level of buccal soft tissues was appreciated.
Results. All implants successfully integrated. In one case, solitary graft particles were observed in the soft tissues. The augmented sites shrank insignificantly, and a good profile from buccal site was observed in all the cases. No significant effect was observed in the usage of collagen membrane as well as in one or two-steps protocol.

Conclusions. The usage of contour grafting in case of implants placement in posterior sides of the jaws seems to be a good method of augmentation. In case of a good periosteum, the collagen membrane isolation is not mandatory. Due to the lack of difference between one step and two steps protocol, the one step placement is more favorable because of the reduced number of surgeries and a mature biological width at the end of healing period. Further studies are necessary to appreciate indications and contraindications for such kind of augmentation.
Key words: implants, contour grafting

286. THE USE OF PLATELET- RICH FIBRIN IN ORAL SURGERY

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Introduction. The blood supply and growth factors are essential factors in postoperative healing. Platelet-Rich Fibrin (PRF) is a relatively new concept of natural tissue regeneration, which is widely applied in oral and maxillofacial surgery. Its' advantage consists in increased concentration of autogenous growth factors. It may be used alone or in combination with grafting materials, in order to facilitate wound healing, bone growth and tissue maturation after different types of surgeries.
Aim of the study. The aim of this study is to analyze the effect of Platelet- Rich Fibrin (PRF) regarding specific clinical cases, in patients with different diagnosis.
Material and methods. A clinical study has been performed in four patients with different clinical diagnosis: wound dehiscence, oro-antral communication, mandibular cyst, free gingival graft from palate. These patients were treated using standard treatment protocols and the Platelet-Rich Fibrin membranes as biological seals with and without grafting materials.
Results. The use of PRF membranes as biological seal after soft tissue grafting as well as tooth extraction with cystectomy appeared to be stable and protected the socket and grafting material during healing. The same effect was observed after closing of oro-antral communication. Furthermore, the application of PRF membranes seems to promote tissue healing in case of postoperative wound dehiscence.
Conclusions. The use of PRF membranes has a positive effect upon soft and hard tissue healing. Moreover, it seems to facilitate the healing process and decrease the risk of postoperative complications.
Key words: Platelet- Rich Fibrin (PRF), regeneration, oro-antral communication, cyst, wound.

287. COMPARISON OF BONE REGENERATION IN THE EXTRACTION SOCKETS

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Introduction. The resorption and remodeling of alveolar ridge after tooth extraction is a natural, psysiological phenomenon, which might affect irreversibly and negatively the perspective of oral rehabilitation. Different materials have been suggested for augmentation of sockets after tooth extraction.
Aim of the study. The purpose of this study is to compare the regenerative properties of a biomaterial used in extraction sockets as an augmentation technique.