

30. GUIDED BONE REGENERATION USING LAMELLAR AUTOGENOUS BONE BLOCK.



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Introduction. Nowadays, restoring edentulous areas by inserting implants is becoming increasingly popular. Successful implant placement requires an adequate alveolar ridge dimension, this is one of the mandatory requirements to provide aesthetics and functionality on the long term. To provide the required amount of bone tissue for implantation, guided bone regeneration procedures using allogenic as well as xenogeneic grafts are often used. However, the obtained results often are insufficient due to poor integration of grafting material. One of the techniques that allow the restoration of three-dimensional crestal defects is the Khoury technique - which offers the advantage from the following perspectives: the structural stability gained by using autogenous bone blocks, also offering the advantage of integrating bone blocks through faster postoperative tissue adhesion (due to the autogenous nature of the graft) and the low volume of inflammatory complications.

Case statement. The study was centred on a female patient of 60 y(o), that addressed with the absence of the right lower molars in the mandible. After clinical and paraclinical evaluation, it was determined that the posterior sector of the mandible presents a horizontal defect of the alveolar ridge – class C-w by Misch, limited amount of medullary bone, thin gingival phenotype, and an implant crown-ratio close to 1:1. of two bony wall defects. In order to restore the defect, bone augmentation using autogenous lamellar bone blocks harvested from the region of wisdom molar was used. The lamellar bone from the donor site was harvested with piezotome and stabilized with microscrews, while the obtained space between block and recipient site was grafted with porcine graft and covered with biphasic cement. Postoperative x-rays were made at the end of the healing period (4 months), before implant placement.

Discussions. The augmentation method performed showed a sufficient amount of bone obtained. In comparison with Khoury technique, in this particular case porcine graft and biphasic cement were used to fill the gap. During the preparation of the implant site, no difference between the native bone and porcine graft were observed. The implants were inserted in one-surgical step and soft tissue grafting was performed in the same surgery.

Conclusion. The usage of xeno- or porcine graft in combination with autogenous lamellar bone blocks offer good results and can be considered an alternative to the pure autogenous grafting material. The presence of autogenous bone at the edge of the grafted area ensures both osteogenic properties and hard support of the obtained scaffold.