

66. THE USE OF BIPHASIC CEMENTS IN PERI-IMPLANT CONTOUR GRAFTING



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Introduction. Tooth loss over time leads to bone atrophy in the edentulous area, which involves bone degradation in thickness, width and height. This aspect served as a starting point for the discovery of different materials, which resemble the natural bone structure, biocompatible with the human body and suitable for restoring lost bone volume. However, integration of the grafting materials does not always correspond to the expected results. In order to isolate the periosteum from the graft different membranes are used, which increase both surgical difficulty and the cost of the surgery.

Case statement. The case presentation is based on a female patient (39 years old) who complained about a missing tooth on the upper jaw (first premolar). After clinical and paraclinical (CBCT) examination, a bone defect was observed from the buccal aspect (class B by Misch) which required contour grafting. A biphasic cement was used as grafting material. After performing incision and flap reflection, the implant site was performed with osseo-densification drills in order to preserve as much bone as possible, a 4,0-12mm implant was placed with an insertion torque of 40Ncm. Biphasic cement was applied to the buccal side until the level of neighboring teeth buccal profile. After drying with a gauze, the flap was sutured and no membranes were used. An individual healing abutment was made. Control x-rays were performed postoperatively and 6 months later in order to evaluate the obtained results.

Discussions. The obtained results showed good restoration of the alveolar ridge and stable result after 1 year follow-up. Due to its property to harden during drying, it was easy to handle and no membrane was necessary for isolation of the graft. Insignificant postoperative edema was present 2 days after the surgery. At 1 year follow-up, the level of alveolar ridge in the region of the implant preserved its contour, similar to the neighboring area.

Conclusion. In small one-wall defects, the usage of biphasic cement showed good and predictable results. Beside the resorbable properties of this biomaterial, it can be a good option for contour grafting and can significantly decrease the operative time and costs due to hardening properties, which exclude the necessity of membrane usage.