



63. THE ROLE OF COLLAGEN GRAFTING IN SOCKET PRESERVATION

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Introduction. The implant prosthetic rehabilitation became an ordinary and most accepted method for treatment of edentulism. According to the literature, bone atrophy in the first year after the tooth extraction can occur up to 40%. Different biomaterials and techniques have been proposed for socket preservation to decrease the atrophy. However, the results of healing after using xenogenic or synthetic biomaterials in a postextractional socket often lead to a poor bony tissue, which may affect the implant's integration. Thus, in case of 2 or 3 bone wall defects, the preservation of the socket becomes a necessity in order to maintain the height and width of the bone crest.

Case statement. The study was based on a 65 years old patient who accused pain and mobility of the bridge in the right posterior side of the mandible. According to the X-ray, a radiolucency all around the second molar was noticed. The radiological signs of inflammation around the failing tooth reached the close proximity of the inferior alveolar nerve, with defect of buccal and lingual plates. In order to minimize the postoperative defect, a modified approach was applied. After removing the bridge and the tooth, the surrounding invaginated tissue were detached with the flap elevator from the bottom, preserving at least one contact with the marginal mucosa, and hemostasis has been performed. The created space was filled with resorbable collagen material with HA, lincomycin and metronidazole. The tent was created from the tissue that surrounded the tooth and sutured to the marginal mucosa. Medicamentous treatment was prescribed, and the patient was monitored for the next 6 months. The newly formed bone and soft tissue quality obtained after 6 months showed a good regeneration with insignificant atrophy.

Discussions. In conventional teeth extractions, the soft tissue from the socket are usually removed. That creates big defects during healing, especially in such situations with 2 or 3 bone walls defects. Except periapical granulomas, the invaginated tissue from marginal periodontium which surrounds completely the teeth roots can be successfully used as a tent to minimize the soft tissue defects and enhance the epithelization. On the other hand, the collagen resorbable materials offer a porous scaffold which allows the surrounding bone to proliferate easier inside the grafted space and lead to a better bony tissue in comparison with other ones.

Conclusion. In case of soft tissue invagination around the failing teeth, the tunneling technique and their usage as a tent with collagen preservation of the socket minimize the postoperative defects and show predictable results.