11. COMPARATIVE ANALYSIS OF PALATAL WOUND MANAGEMENT TECHNIQUES POST FREE GINGIVAL GRAFTING

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Introduction. The use of the hard palate mucosa as a donor area is considered the gold standard in gingival plastic surgery today. Following palatal grafting, various methods have been proposed for managing the postoperative wound, such as protecting it with a blood clot, using collagen-based biomaterials, or utilizing PRF membranes.

Aim of study. To determine the optimal method in the management of the palatal wound following palatal grafting surgery.

Methods and materials. This study was conducted between 2022 and 2023 at the "Omnident" clinic. It involved 15 patients aged between 20 and 45 years who required palatal grafting intervention. Following the palatal graft harvesting procedure, the patients were divided into two groups: the intervention group, consisting of 5 patients who received PRF membrane and 5 patients with collagen-based biomaterial (Kolapol KP-3), and the control group comprising 5 patients whose palatal wound was under the protection of a blood clot. In each case, patients were reviewed at 7-, 14-, and 30-days post-operation and examined based on the following criteria: wound bleeding, re-epithelialization level, shape and size of the wound, presence or absence of postoperative complications, and pain intensity assessed using the Numeric Rating Scale (NRS).

Results. A significant difference was observed between the control group and the intervention group; a substantial difference in wound re-epithelialization was noticed by day 14. For patients with the PRF membrane and Kolapol, values were 60% and 10% for the control group, respectively. At 30 days post-operation, complete re-epithelialization of 100% was observed in all cases. Among patients who received the PRF membrane and Kolapol KP-3, no major differences were noted. The morbidity level among the control group patients was higher compared to the intervention group. According to the Numeric Rating Scale at 14 days post-operation, the control group indicated values between 4-6, whereas the intervention groups reported values ranging from 1-4.

Conclusion. The results have demonstrated that both the PRF membrane and collagen-based biomaterials accelerate the healing of the palatal wound compared to cases where the wound protection is solely achieved by a blood clot. Additionally, patient morbidity is reduced through a shorter healing time.