

ACTA SCIENTIFIC DENTAL SCIENCES (ISSN: 2581-4893)

Volume 7 Issue 1 January 2023

Let's Shield the Socket: Editorial

Arpit Sikri^{1*} and Jyotsana Sikri²

¹Associate Professor and Post Graduate Teacher, Department of Prosthodontics, Crown and Bridge and Oral Implantology, Bhojia Dental College and Hospital, Solan, Himachal Pradesh, India

²Associate Professor and Post Graduate Teacher, Department of Prosthodontics, Crown and Bridge and Oral Implantology, Bhojia Dental College and Hospital, Solan, Himachal Pradesh, India

*Corresponding Author: Arpit Sikri, Associate Professor and Post Graduate Teacher, Department of Prosthodontics, Crown and Bridge and Oral Implantology, Bhojia Dental College and Hospital, Solan, Himachal Pradesh, India.

The harmony between the pink and white zones, particularly in the aesthetic sections, must be achieved and maintained as one of the fundamental objectives of prosthetic rehabilitation. The loss of buccal bone, both vertically and horizontally, as well as the flattening of the interproximal bony scallop were reported to follow an atraumatic extraction of a tooth with rapid implant placement [1]. This led to a challenging rehabilitation. The cause of unsightly black triangles between teeth is the loss of supporting bone followed by the apical migration of soft tissue. For a clinician, this poses a very difficult situation in terms of replacing the missing tooth with a restoration that looks acceptable, especially in the maxillary anterior region. To make up for this loss, numerous preventive techniques including ridge preservation techniques and post-ridge collapse operations like bone augmentation, soft tissue augmentation, or a combination of these, have been performed in the past. The socket-shield technique (SST), on the other hand, is employed as a predictable therapy with minimal surgical intervention, a shorter overall treatment time, and the best possible aesthetic outcome [2].

In cases where the aesthetics are problematic, the SST offers a viable therapy option to control these hazards and protect the post-extraction tissues. The idea is to make the buccal/facial root section of a tooth that needs to be extracted such that the root can be extracted while keeping the buccal/facial root section in place.

This method is sometimes referred to as partial root retention, root membrane technique, [3] partial extraction therapy, and [4] Received: November 22, 2022 Published: December 01, 2022 © All rights are reserved by Arpit Sikri., *et al.*

partial root retention. It seeks to keep the buccal two-thirds of the root in its socket so that the buccal bone, bundle bone, and periodontium are all preserved. Both the gingiva above and the periodontium below supply the buccal bone on either side with blood. When a tooth is pulled, the blood flow from the socket side is cut off, which causes some buccal bone to be lost. The periodontal attachment apparatus, which consists of the periodontal ligament (PDL), attachment fibres, vascularization, root cementum, bundle bone, and alveolar bone, is preserved in the root section [5]. In addition to supporting the buccal and facial tissues and preventing the anticipated post-extraction socket remodelling, the root fragment is still important and unharmed [6].

SST is a promising method that aids in maintaining the pinkwhite aesthetic due to the preservation of the entire attachment system for complete preservation of the alveolar ridge. A correct diagnosis should be obtained and the region thoroughly examined before the surgery is actually carried out. A complex and heterogeneous clinical picture, such as two neighbouring root stumps, a root stump next to an edentulous location, or an implant, may be present in the patient. These locations provide the clinician various difficulties to overcome and necessitate a varied treatment strategy [7].

The SST is becoming more and more popular among physicians all over the world. The method shows a lot of promise for protecting both hard and soft tissues when placing implants right away after extraction. Even in cases involving immediate implant, the suggested classification will allow doctors to construct the shield in accordance with the clinical circumstance and obtain the best aesthetics [8].

Bibliography

- Mitsias ME., *et al.* "A step-by-step description of PDL-mediated ridge preservation for immediate implant rehabilitation in the esthetic region". *International Journal of Periodontics and Restorative Dentistry* 35 (2015): 835-841.
- Tarnow DP., *et al.* "The effect of inter-implant distance on the height of inter-implant bone crest". *Journal of Periodontology* 71 (2000): 546-549.
- Kan JY and Rungcharassaeng K. "Proximal socket shield for interimplant papilla preservation in the esthetic zone". *International Journal of Periodontics and Restorative Dentistry* 33 (2013): e24-31.
- 4. Mitsias ME., *et al.* "The root membrane technique: Human histologic evidence after five years of function". *BioMed Research International* 2017 (2017): 7269467.
- Gluckman H and Du Toit J. "The management of recession midfacial to immediately placed implants in the aesthetic zone". *International Dentistry Magazine African Edition* 5 (2015): 6-15.
- 6. Salama H., *et al.* "The interproximal height of bone: A guidepost to predictable aesthetic strategies and soft tissue contours in anterior tooth replacement". *Practical Periodontics and Aesthetic Dentistry* 10 (1998): 1131-1141.
- Hürzeler MB., *et al.* "The socket-shield technique: A proof-of-principle report". *Journal of Clinical Periodontology* 37 (2010): 855-862.
- 8. Bäumer D., *et al.* "The socket-shield technique: First histological, clinical, and volumetrical observations after separation of the buccal tooth segment - A pilot study". *Clinical Implant Dentistry and Related Research* 17 (2015): 71-82.