Tunneled coronally advanced flap for root coverage and interdental tissue reconstruction

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Abstract

Gingival recession is defined as the apical shift of the gingival margin to the cemento-enamel junction, associated with attachment loss and exposure of the root surface to the oral environment. This condition may cause several problems, including esthetic concerns, dental hypersensitivity, root caries, non-carious cervical lesions, and difficulties achieving optimal plaque control. It may progress over time without management. Clinically, the most frequently selected techniques for root coverage were coronally advanced flap (CAF) and the tunnel technique (TUN). However, both methods have advantages and disadvantages, and clinicians are often faced with the choice of performing only one during root coverage procedures.

In addition, maximum precision is required in performing mucogingival surgery to satisfy particular esthetic demands; a surgical microscope that enhances complete visualization of the operative field may represent a valuable tool for root coverage. This presentation highlights the tunneled coronally advanced flap (TCAF) under the dental microscope for root coverage and papilla augmentation. This newly introduced technique combined the benefits of both the CAF and the

TUN. The CAF provides better access for flap advanced, and the TUN maintains more blood supply and nutrition without papilla incision. Based on various benefits of TCAF, more stable root coverage could be expected even in the recession defects with interdental attachment loss. Moreover, the clinical cases will be demonstrated and discussed to familiarize with this technique's clinical application and possibilities to improve clinical outcomes.