**Peri-implant soft tissue recessions**

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**Introduction**

A beautiful aesthetic result is difficult to obtain with implants in the anterior areas. Both the alignment of the gingival margin and the presence of papillae are essential elements in resolving aesthetic implant problems to achieve an harmonious smile. These two soft tissue entities, however, are closely related to the patient’s biotype and to the quality/quantity of underlying structural alveolar bone.

The peri-implant gingiva, particularly if it is narrow, with a thin-scalloped biotype, inevitably retracts six months after implant placement, following implant restorations in the anterior zone, several strategies have been suggested, which are explained in detail in the following points.

1) **Implant design and diameter**

The design of the collar of the implant should stabilize the crestal bone by bringing the roughened surface right up to the platform, and the threads/microgrooves as close as possible to the platform, with no divergence of the collar walls.

2) **Implant and restoration**

Orthodontic treatment is the best solution for patients who wish to limit the surgery required for the placement of implants to a single session, and to enhance the hard and soft tissue profile prior to extraction and implant placement (Salama et al, 1993).

3) **Flap design**

On healed site the limited flap design minimizes interproximal bone and papillae loss. Many flap designs have been described for healed sites, some raising the total interproximal papillae with successful incision around adjacent teeth, others using mid-crestal palatal crest incision with sulcular envelope flap and, finally, tissue punch flap recommended in large amount of keratinized gingiva.

4) **Abutment and restoration**

Flapless approach using tissue punch procedure has many advantages: less trauma to the bone and disturbances to the soft tissue stability, reduction of pain and oedema, and less post surgical information.

Immediate implant placement after extraction is usually a flapless surgical procedure, the extraction being done using a periotome to minimize traumatic damage to the hard and soft tissues.

5) **Connective osseous grafts**

An autogenous bone and xenograft with a membrane is used to gain buccal thickness knowing that bone resorption/gingival recession always occurs after extraction/implant placement.

Gingival biotype plays an important role in determining tissue levels achieved around implants. A thin biotype is generally more susceptible to peri-implant recession, induced by the resorption of a thin labial cortical plate. The use of osseous and connective grafts converts a thin gingival biotype into a thick gingiva (Matheux, 2000), which can enhance gingival marginal stability and simplify tissue management during the restorative treatment phase.

6) **Abutment and restoration**

Optimal aesthetics will be promoted if the final abutment is installed at the time of implant placement, and left in place undisturbed, throughout the final restoration phase, avoiding disturbance of bone and soft tissue architecture.