

Plexr: applications in dentistry Gummy smile and much more

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Applications of Plexr

- ▶ Aesthetic Medicine
- ▶ Dermatology
- ▶ Gynaecology
- ▶ Ophthalmology
- ▶ **Dentistry**



Why Plexr in dentistry

- ▶ **Many applications with many advantages*:**
 - ▶ Muco-gingival exeresis, without infiltrative anesthesia and without bleeding, with considerable savings in terms of execution and considerable compliance by the treated patients.
- ▶ **Better management of post-intervention:** differently from lasers and radioscalpels, not overheating the surrounding tissues and causing neither edema nor bleeding, involves a quicker and painless wound healing
- ▶ The applications tested and currently executable concern **all the types of full-thickness gingivectomies**, the **frenulectomies**, the **exposure of the cavity margins** in conservative, uncovered implants, and also the **opening of the grooves** for taking the impression in a fixed prosthesis, and the **removal** of new growths of the mucous membranes and of the tongue.

* Compared to classical treatments

Clinical cases

Cervical obturation

Cervical fillings by carious infiltration of old composite fillings



Initial Case:

The caries has softened a part hidden from the gingival margin entering the furrow and reaching the epithelial attachment zone

Cervical obturation

Phase 1

Before caries was extracted with a plastic anesthesia, a gingivectomy was performed with Red Handpiece taking care to remove the internal area of the sulcular epithelium without shortening the gingival margin with an external bevel, which would remove too much tissue.



Phase 2

The excavation of the caries was completed and only afterwards we proceeded to further discover the cervical margin of the cavity with further gingivoplasty, always with a view to removing the smaller amount of tissue

Phase 3

Composite filling without the presence of bleeding which would reduce the adhesion strength of dentinal enamel adhesive (Self-Etching in 2 steps)

Finishing and polishing with diamond drills with decreasing grain and paste

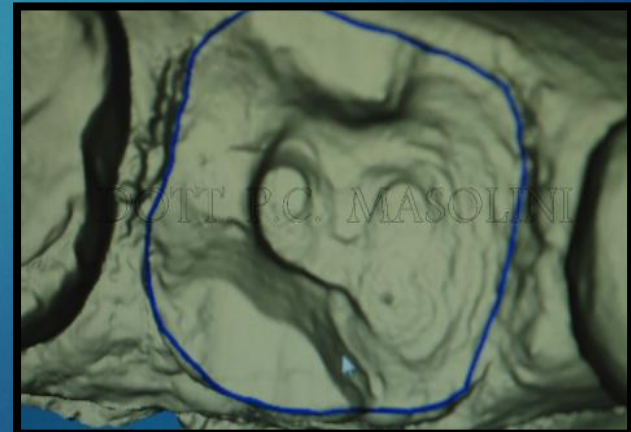


Papillectomy with Plexr

Papillectomy is performed with Red Handpiece. A blood gemice is broken off with a cotton soaked in H_2O_2



Optical-Cerec 3D impression



Cementation and control at 10 days

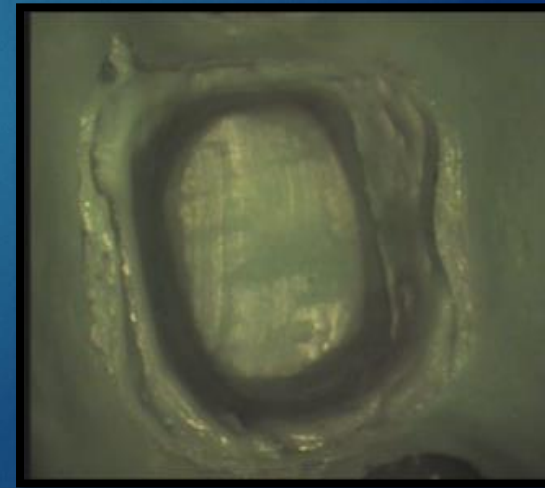
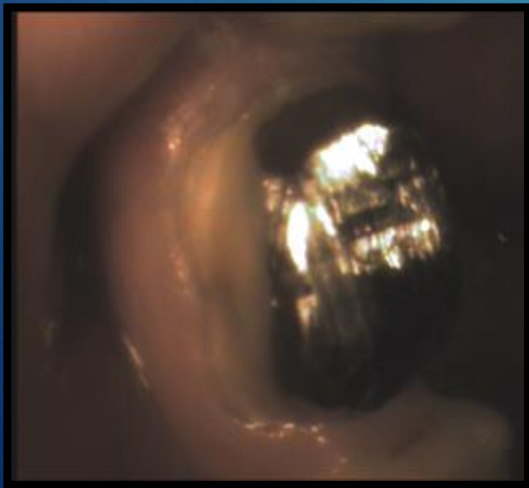
Cemented crown in the same session:

- a) Preparation
 - b) Papillectomies,
 - c) Optical impression and tooth preparation with cementation
- Total time taken: 1 h and 30 min

Control at 10 days with perfect integration of soft tissues, re-growth of the papillae and total absence of algic and / or sequelae inflammatory



Other cases



Vestibular Median Frenulotomy

Presence of lower buccal traction or signs of loss of attachment and marginal inflammation on the 41



No anaesthesia – Handpiece used: RED

Healing control in which there is less traction due to a more apical reattachment of the fibers and consequent gingival improvement



Plexr – Pre Prothesis



Plexr – Epulis Removal

- ▶ Red Handpiece
- ▶ Spray technique
- ▶ Perfect healing



Focus on: gummy smile

Gummy smile (smile gingival) is a clinical situation in which the patient, smiling, shows a very large proportion of gingiva, with an anti-aesthetic effect.



Causes

- ▶ **Short lip:** when you smile you do not have the breadth necessary to cover the gums so they remain exposed.
- ▶ **Hyperactive or hypertonic lip:** when you smile your lips, you stretch a lot, due to the elevating muscles involved and the gingiva is exposed.
- ▶ **Teeth:** There are cases in which the teeth are (or seem) too long and almost completely cover the lower, in this case we speak of "deep bite" and it is very easy to find a gingival smile because the height of the teeth and gums remains lower than it should, so that when you smile you expose the upper incisors and a good part of the upper gum.
- ▶ **Gums:** when they are long it is common for the smile, even if little, to expose too much gingiva or when the teeth are not completely erupted and therefore the tooth-gum proportion remains unchanged and the Gummy smile appears. Drugs such as antidepressants and antiepileptics cause gingival hypertrophy and can be associated with a gingival smile.



Which treatments are
indicated for Gummy
Smile?

Dental approach

- ▶ **Periodontal Surgical Treatment:** In cases where there are more than 4-6 mm of gingiva covering the teeth there is the possibility of removing the gingival tissue. This can be done in two ways:
 - ▶ **Gingivectomy:** with this technique it is possible to eliminate a portion of gingival tissue at the level of the tooth base and associating a rehabilitation of the anterior sector with Veneers or crowns. Depending on the cases this treatment can be completed by Osteoplasty.
 - ▶ **Orthodontic treatment (non-surgical):** Gingival smile treatment with orthodontics in adult patients is frequent. Very satisfactory results are obtained on an aesthetic and functional level.

Medical-Aesthetic Approach

- ▶ **Botox:** the botulinum toxin in the lip elevating muscles is injected to relax it. In this way, the lifting muscles lose strength and can not completely lift the upper lip. This technique can be associated with gingival surgery. This treatment is effective, but it is temporal with a temporary duration

Synergic approach



Surgical approach

- ▶ **Orthognathic surgery:** Intermaxillary (Bone) relationship
- ▶ **Plastic surgery:** Myotomy of the levator labii superioris muscle and lip repositioning: a combined approach for the correction of gummy smile.

Plast Reconstr Surg. 2010 Sep;126(3):1014-9

- ▶ **Oral-periodontal surgery:** Tejal Sheth, Shilpi Shah, Mihir Shah, and Ekta Shah **Lip reposition** surgery: A new call in periodontics

Contemp Clin Dent. 2013 Jul-Sep; 4(3): 378–381.

Lip Reposition

Before



After



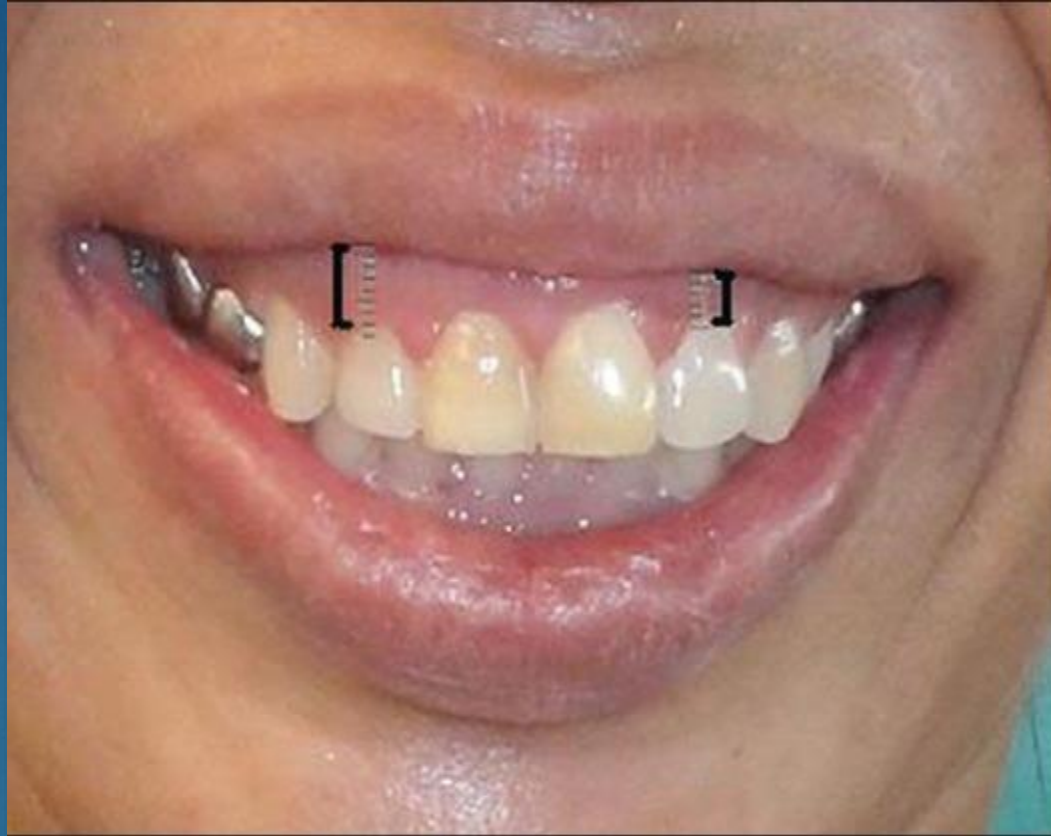
Tejal Sheth, Shilpi Shah, Mihir Shah, and Ekta Shah Lip reposition surgery: A new call in periodontics *Contemp Clin Dent*. 2013 Jul-Sep; 4(3): 378–381.

Lip reposition

Intervention



Lip reposition



- ▶ Still asymmetry between left and right side in gingival swelling.
- ▶ Good result but with surgical route, cut and sew and possible complications

New approach with Plexr

Protocol of simple effective execution and predictable results with fast healing times and that can solve many (not all) cases of gummy smile that present themselves in the daily routine



GUM CONTOURING
DR. MASSIMO ROTA

Gummy smile – Plexr protocol

PRE-TREATMENT

▶ **Clinical Evaluation**

▶ **Anamnesys:** medical and dental (drugs, dental care and previous orthodontics)

▶ **Intraoral X-ray** or **OPT**

▶ **Periodontal examination** for gingival tissue evaluations (quantitative, qualitative)

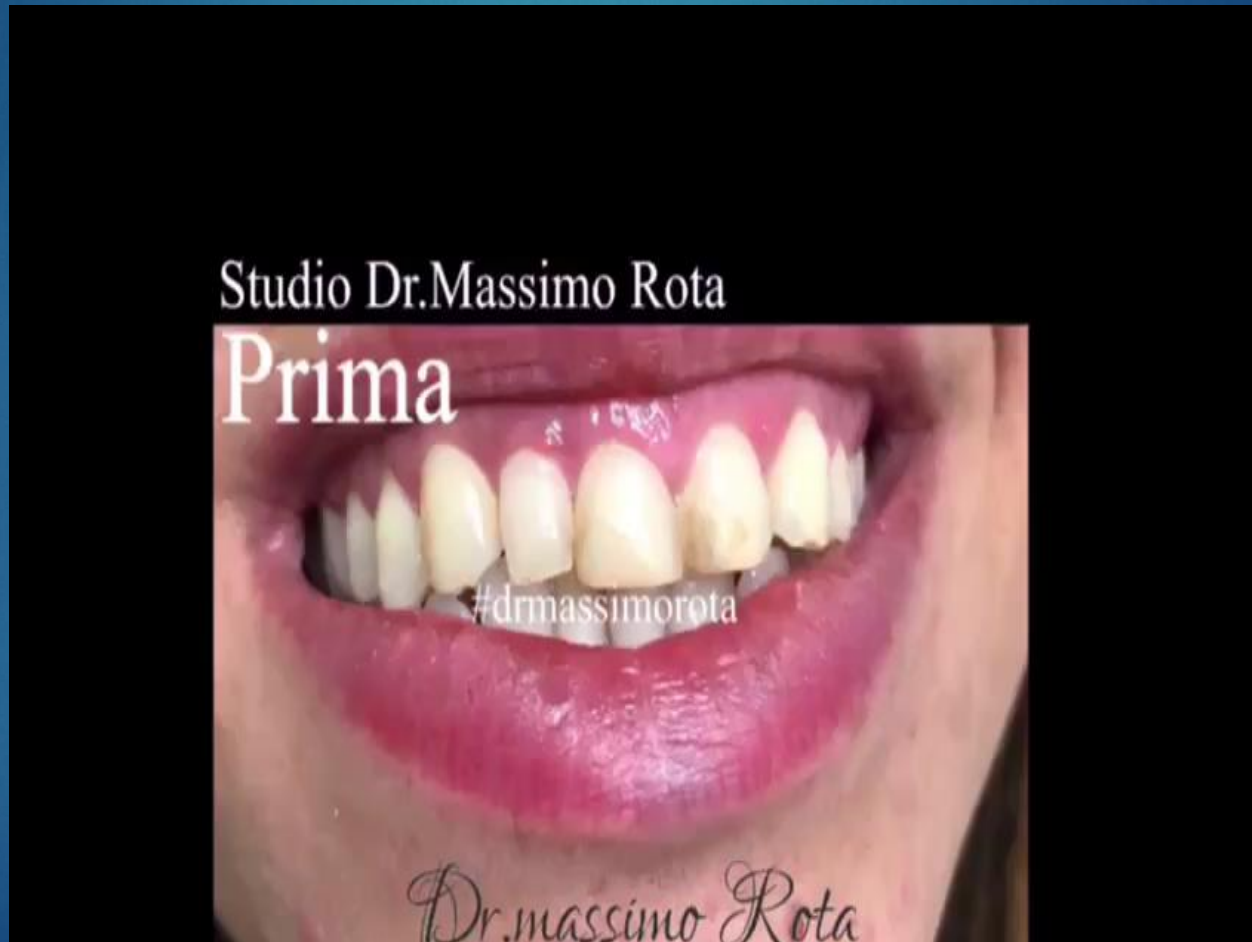
Gummy smile – Plexr protocol

- ▶ **Anesthesia:** usually it is not necessary
 - ▶ If necessary (for patient's needs):
 - Spray or Local numbing cream
 - Infiltrative

Gummy smile – Plexr protocol

- ▶ **Anesthesia:** usually it is not necessary
 - ▶ If necessary (for patient's needs):
 - Spray – Local cream
 - Infiltrative
- ▶ **Handpiece:** Red for treatment – White for finishing

Gummy smile – Plexr protocol



Gummy smile – Plexr protocol

POST-TREATMENT

- ▶ After full thickness gingivectomy
- ▶ Eliminate carbon residues with H_2O_2
- ▶ Prescribe oral hygiene with mouthwashes based on Clhx and alcohol-free (due to delayed wound healing)
- ▶ If necessary at 40/60 days it is possible to repeat treatment

Gummy smile – Plexr protocol



Gummy smile – Plexr protocol

Before



After



Gummy smile – Plexr protocol



Before



After

To sum up

Is Plexr indicated only for Gummy Smile?

NO!

- ▶ Gingivectomies and crown lengthening if it does not require osteoplasty
- ▶ Dental implants
- ▶ Benign neoforations of the oral and labial mucosa
- ▶ (last but non least) Gingival whitening

Gingival whitening



Advantages of Plexr in my daily experience

- ▶ **Versatility**: one of the very few devices that can be used on the skin but also on the mucosa
- ▶ **High remuneration coefficient** with respect to the investment
- ▶ **Almost total absence** of iatrogenic damage
- ▶ **Specific Scientific Literature** on Plexr
- ▶ Relatively **low learning** curve

Versatility of Plexr

Aesthetic
Medicine



Dentistry

**Beauty of the smile
and of the lower middle third**

THANK YOU FOR YOUR
ATTENTION!



Oral Plexr: where Aesthetic Medicine meets Dentistry



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