

Complex treatment of marginal periodontitis.

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Periodontal treatment plan (Associate professor Horia Dumitriu, Carol Davila University, Bucharest)

Periodontal treatment plan usually consists of three phases:

I Phase – Initial therapy.

- **Control or elimination the plaque infections:**

- **Baseline indices of periodontal status;**
- **Instruction in oral hygiene techniques;**
- **Smoking cessation counseling (if needed);**
- **Scaling and root planning surface debridement and elimination of plaque retention factors;**
- **Monitor response to treatment;**
- **Review prognoses.**

- **Provisional treatment may include:**

- **Extractions;**
- **Endodontics;**
- **Occlusal adjustments;**
- **Treatment the dentin hypersensitivity.**

II Phase – Corrective periodontal therapy.

- **Periodontal therapy now include:**
 - **Non-surgical therapy;**
 - **Periodontal surgery;**
 - **Adjunctive local antimicrobials (chronic periodontitis);**
 - **Adjunctive systemic antibiotics (aggressive periodontitis).**
- **Review outcomes and prognoses;**
- **Definitive treatment plan may include:**
 - **Occlusal adjustments;**
 - **Endodontics**
 - **Extractions;**
 - **Definitive restorative work, fixed and/or removable prosthodontics; Implants;**
 - **Orthodontics;**
- **Arrangement the periodontal supportive therapy.**

III Phase - Supportive periodontal therapy.

- **Recall in time interval appropriate to diagnoses (e.g. more frequent for aggressive periodontitis than chronic periodontitis);**
- **Monitor periodontal status;**
- **Re-motivate and re-educate the patient;**
- **Repeat plaque control instruction;**
- **Re-treat disease;**
- **Arrange next recall.**

Initial therapy

For the patient is given the instruction in oral hygiene techniques, including the type of tooth brush and the use of interdental aids, dentifrice or mouth wash. There is a crucial aspect of the treatment. The ultimate goal is to achieve 85-90% of surface free from plaque, with a concomitant reduction in marginal inflammation.

Smoking cessation counseling is provided if needed and the patient informed of the risk to their oral and general health from smoking and the detrimental effect to the success of periodontal treatment.

Scaling and root surface debridement are undertaken using local analgesia as required in conjunction with elimination of plaque retention factors. The response to therapy is monitored 8-12 weeks after treatment; 6 weeks - is the minimum period to allow for initial healing to occur before reprobing the tissues. In initial therapy has been successful then the patient can move to the supporting phase of therapy.

The treatment of marginal periodontitis must be complex, associated:

*** local;**

*** with surgical;**

*** prosthetic;**

*** physical;**

*** general.**

Local treatment has the purpose (by Lemetskaia):

I. to abolish the local irritant factors:

- 1. scaling, removal of soft deposits;**
- 2. filling the teeth with restoration of contact points;**
- 3. selective smoothing of occlusal surfaces;**
- 4. to suppress the prosthetic denture that loses its qualities;**
- 5. treatment of dental anomalies and occlusion;**
- 6. to abolish bad habits;**
- 7. to recommend rational tooth brushing of teeth;**

II. to abolish clinical symptoms of periodontitis:

- 1. gingivitis treatment in dependence on evolution form and degree of manifestation;**
- 2. to liquidate the periodontal pockets and osseous pockets;**
- 3. to abolish teeth mobility (teeth immobilization);**
- 4. to suppress dental defects;**
- 5. treatment of hyperesthesia of hard dental tissue;**
- 6. suppression of traumatic occlusion;**
- 7. pathogenic therapy of inflammatory process in periodontium.**

III. Stimulation therapy using remedies with stimulation action of defense and adaptation mechanisms of organism, reparative stimulation:

- 1. stimulation of circulatory system, periodontium trophism;**
- 2. stimulation of collagen formation;**
- 3. osteogenesis formation;**

The action (attitude) under periodontal pockets is done by:

- 1. conservative methods, using anti-inflammatory remedies when pocket has depth 3-3.5 mm;**
- 2. curettage – opened or closed of pockets with depth from 3.5-4.5 till 5 mm;**
- 3. surgical methods when pocket has depth that overtakes 5 mm.**

Local treatment anti-inflammatory is done with medicaments applied on gingiva or in periodontal pockets; with antimicrobial properties as:

- **H₂O₂ 3%;**
- **K₂MnO₄;**
- **Rivanol;**
- **Nitrofur;**
- **Zinc chloride ZnCl₂ 30%;**
- **citric acid;**
- **chromic acid;**
- **0.05-0.08% Decametoxin;**
- **0.1% sol. Novomanine;**
- **syrup of Cotrimazole.**

Antimycotics:

- Water so. 3% Glycine;
- 1-2% aniline dye;
- Iod remedy (Lugol sol. In glycerine 1:1);
- 1% Iodinol;
- 2-3% sodium bicarbonate.

Antitrichomonadis (antibacterial):

- 1% sol. Metronidazole
- Macmiror (Nitrofurantoin).

In gingival suppuration are used:

- Proteolytic enzymes as: trypsin, chemotrypsin, ribonucleic acid, deoxyribonucleic acid, pancreatine with antibiotics.

Anti-inflammatory ointments (salve): inhibitory of prostaglandins:

- **3% ointment of acetyl salicylic acid;**
- **3% salicylate of sodium;**
- **Indometacine;**
- **Heparine ointment;**
- **Listerine;**
- **Peridex;**
- **Viadent;**
- **Scope;**
- **Phenylbutasone.**

Surgical methods of treatment in periodontology.

The basic procedures on marginal periodontium surgery are:

- 1. Gingival and subgingival curettage;**
- 2. Gingivectomy;**
- 3. Gingivectomy gingivoplastic;**
- 4. Flap procedures;**
- 5. Osseous alveolar surgery;**
- 6. Mucogingival surgery.**

Surgical treatment includes:

- 1. removal from the pockets the granulations and epithelium;**
- 2. scaling with removal of subgingival calculus;**

Curettage is done once to 3-4 teeth monoradicular or 2 teeth pluriradicular. Next curettage is performed after 2-3 days. Curettage in the region of all teeth is done in 9-10 visits. After procedure is applied substances with anti-inflammatory, biostimulative, analgetic action that are called curative bandages. It is allowed to place them only several hours after curettage.

Gingival curettage

It is performed in gingival sulcus and false gingival pockets, without exceeding junctional epithelium.

Indications: Chronic gingivitis with microulcerations on the soft wall of gingival sulcus, and bleeding to easy touch; chronic gingivitis in special marginal superficial periodontitis with false pockets and do not give up to antimicrobial and anti-inflammatory treatment.

Contraindications: allergic gingivitis, fibrous gingivitis with fibromatous clinical aspect.

Technique:

- 1. anesthesia contact or infiltration;**
- 2. fine curette Gracey are gently introduced in gingival pocket or false pocket and withdraw on the soft wall, while the opposite hand execute a moderate pressure on freemarginal gingiva and fixed gingiva. This digital compressure has the purpose to stabilize the gingiva and to allow the curette to load with epithelial and granular inflamed tissue. The bleeding is stoped once with removal the granular tissue of gingival microulcerations;**
- 3. irrigation the gingival sulcus with NaCl or with CHX (chlorhexidine) 0,12% with syringe. The gingiva is protected with Iodoform bandages or surgical cement;**
- 4. gingival curettage is performed after scaling and root planning preferably in second appointment. If it is done in the same visit, curettage may be followed by intrusion of infected tartar fragments in gingival wall.**

Gingival curettage may be performed with also with ultrasonics or electrocauterization.

Application of ZnCl 30% cauterization substance is possible where are small pockets where the risc of machanical dilaceration is high and in difficult accesiable regions.

Subgingival curettage

It is performed in true periodontal pocket, beyond the zone of insertion of junctional epithelium.

Indications:

- 1. small periodontal pockets, 2-4 mm deepness;**
- 2. very deep periodontal pockets;**
- 3. to reduce the risk of suprainfection the periodontal pockets and occurrence the marginal periodontal abscess;**
- 4. apico-gingival fistula;**
- 5. as final treatment to marginal periodontal abscess to monoradicular teeth;**
- 6. in recurrences after other surgical interventions.**

Contraindications:

1. at the level of bi- or trifurcation is not efficient as a single method;
2. increased teeth mobility.

Technique: it is performed on one tooth or six teeth.

1. closed curettage without gingival decoloration, in pockets with small deepness and in accessible zones. It has a reduced efficiency, being realized in reduced visibility conditions.
2. opened curettage with papillary microflaps consists in intrasulcular incision with the blade of interdental papillae until the tooth or alveolar bone with following removal the epithelial tissue and inflamed and necrotized conjunctive tissue ;
3. curettage of granulation tissue until stops the bleeding;

4. root planning, with a sensation of easy sliding on the root;
5. curettage of alveolar bone of soft consistence, until health bone;
5. the granulation tissue of internal face of microflap is removed with special scissor used in plastic surgery;
6. irrigation with solution of Chlohexidine 0,12%;
7. application of granules of hydroxyapatite and biovitrceramics;
8. protection of the operating field with Iodoform turundae; turundae are removed after 24 hours; when granules of hydroxyapatite and biovitroceramics are introduced it is obligatory the suture to be applied.



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Gracey curettes standart kit includes 7 instruments:

- 1/2; 3/4 for incisors and canines;
- 5/6 for incisors, canines and premolars;
- 7/8 and 9/10 for vestibular and oral faces of lateral teeth (9/10 in special for molars);
- 11/12 for mesial faces of lateral teeth;
- 13/14 for distal faces of lateral teeth.

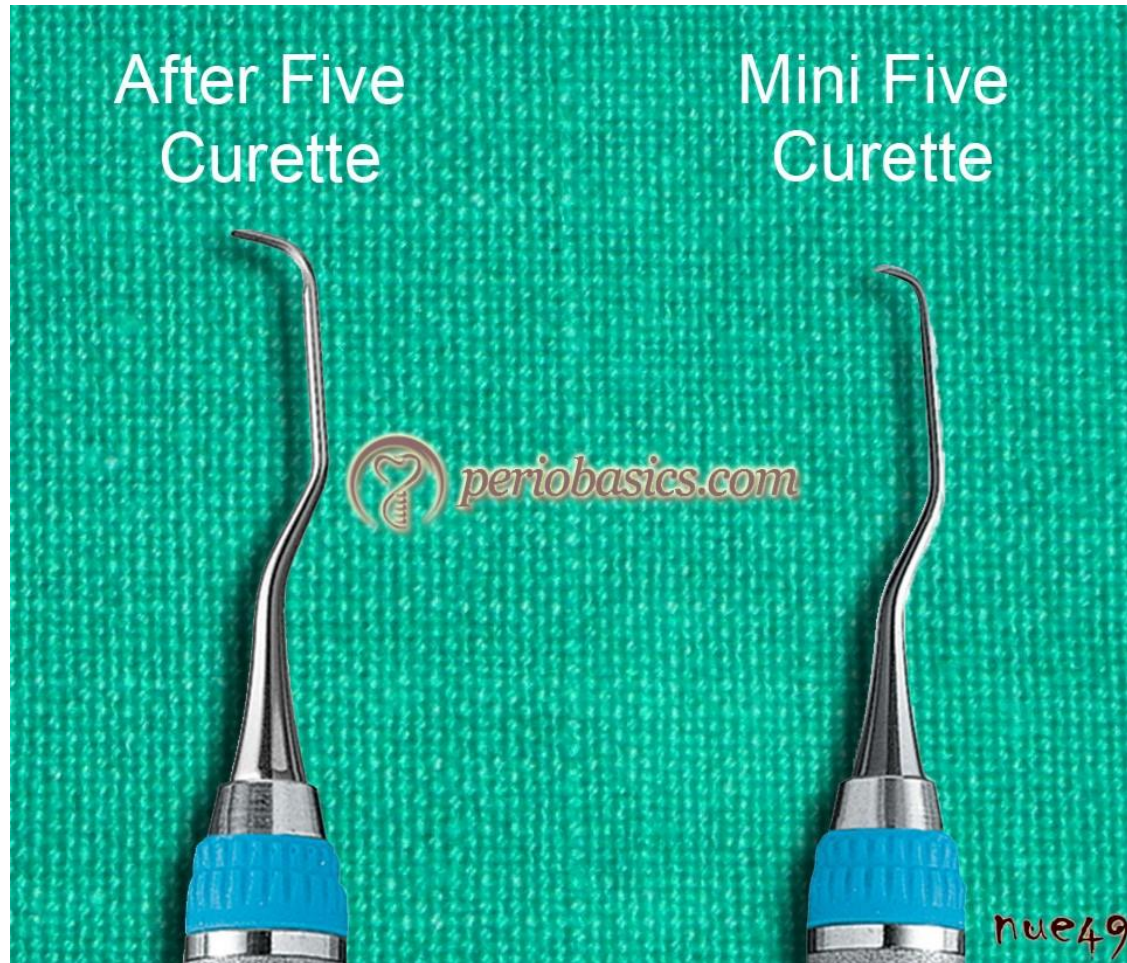
Usually in practice are used only 4 instruments of standart Gracey curettes:

- 5/6 for frontal superior and inferior teeth;
- 7/8 for vestibular and oral faces of molars and premolars;
- 11/12 for mesial faces of lateral teeth;
- 13/14 for distal faces of lateral teeth.

Prophylactic Gracey curettes

“Mini five” Gracey curettes

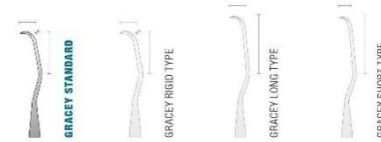
“Before five” or “After five” Gracey curettes





GRACEY STANDARD
GRACEY STANDARD

(1:1 scale / scala 1:1)

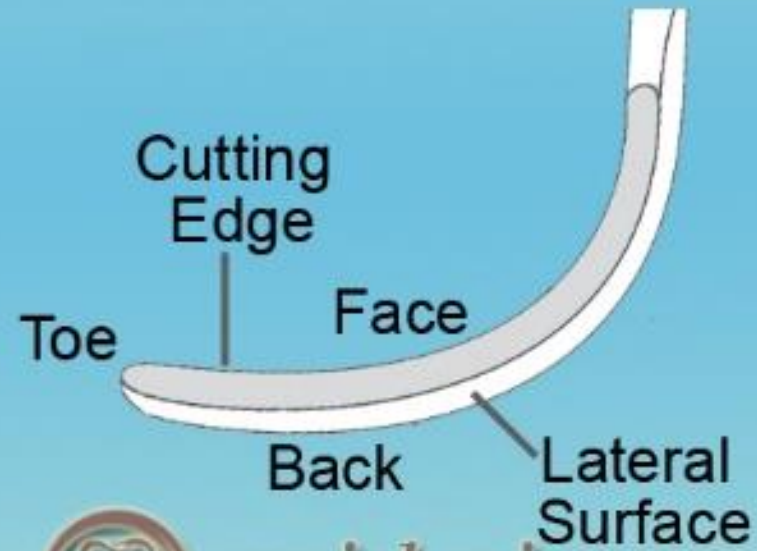


AL Aluminium handle anodized ø 8 mm (as shown)
Manico in alluminio anodizzato ø 8 mm (come da foto)

625/1-2.HL8	625/3-4.HL8	625/5-6.HL8	625/7-8.HL8	625/9-10.HL8	625/11-12.HL8	625/13-14.HL8	625/15-16.HL8
625/1-2.HL10	625/3-4.HL10	625/5-6.HL10	625/7-8.HL10	625/9-10.HL10	625/11-12.HL10	625/13-14.HL10	625/15-16.HL10
625/1-2.C8	625/3-4.C8	625/5-6.C8	625/7-8.C8	625/9-10.C8	625/11-12.C8	625/13-14.C8	625/15-16.C8
625/1-2.AL	625/3-4.AL	625/5-6.AL	625/7-8.AL	625/9-10.AL	625/11-12.AL	625/13-14.AL	625/15-16.AL

CHOOSE YOUR FAVOURITE HANDLE! SCEGLI IL TUO MANICO PREFERITO!

Curette Design



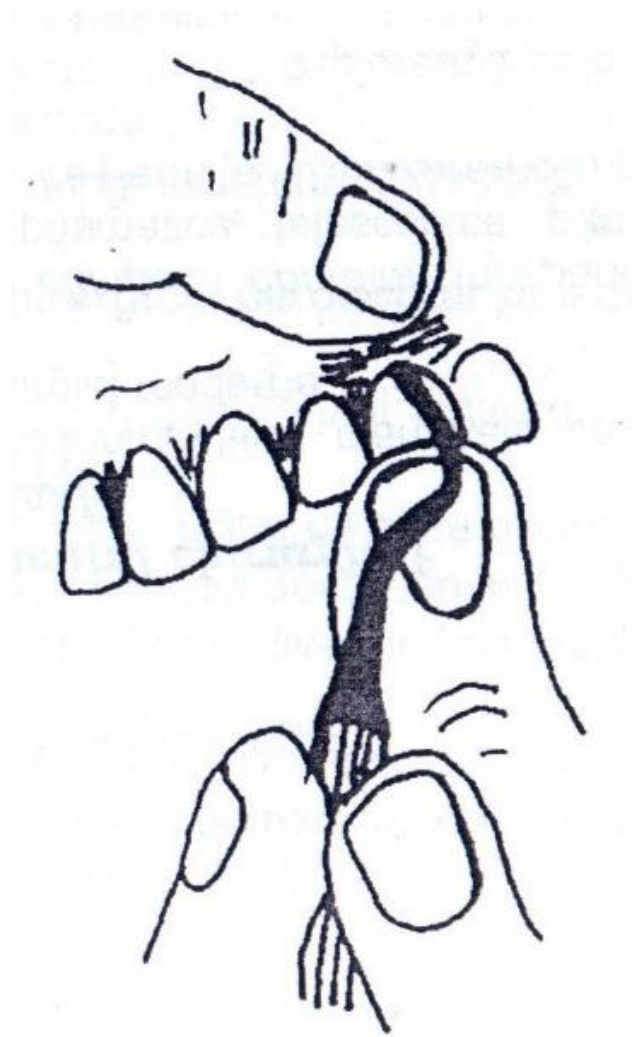
Universal Curette

Area Specific Curette



nue49

Gingival curettage



General treatment of periodontitis by Lemetskaia

Purposes:

- 1. stimulation of human reactivity;**
- 2. anti-inflammatory therapy;**
- 3. hyposensibilization therapy;**
- 4. tonic therapy.**

Indications for stimulation therapy:

- 1. incipient stages of periodontal pathology;**
- 2. sufficient decrease of reactivity indices;**
- 3. teenagers with pathology in slowly phase;**
- 4. inefficient of previously used methods;**
- 5. asthenia of patient.**

Contraindications:

- 1. rapidly evolution of process in periodontal tissue;**
- 2. marginal periodontitis in abscessed form;**
- 3. tumors;**
- 4. dishormonal states;**
- 5. pregnancy;**
- 6. severe pathology of organism;**
- 7. severe forms of oral pathology.**

Remedies:

1. Biostimulines (or biostimulating substances):

- * Aloe 1 ml, subcutaneous 15-20 injections;
- * Biosed, subcutaneous or intramuscular 1-2 ml daily 20 injections;
- * FIBS, subcutaneous 1 ml daily – 15-20 injections;
- * Peloidodestilat, subcutaneous 1 ml daily – 20 injections;
- * Torfot, subcutaneous 1 ml daily – 15-20 injections;
- * Gumisoli, intramuscular 1-2 ml – 30 injections;
- * Placenta extract, subcutaneous 1 ml daily or once in two days, 10 injections.

2. Stimulation the metabolic processes:

- 1% sol. ATP, intramuscular 1-2 ml, 15-20 injections.**

3. Derivate of pyrimidine: methyluracil 0.5g, 3 times per day;

4. Immunomodulators: Prodegiozan, 50 mg intramuscular; 5-7 days, 5-7 injections;

Pirogenal intramuscular, 10-15 injections;

Vitamin D;

NaF 1% - 5-7%.

Tonic medication are polivitamins:

*** Asnitin;**

*** Panhexavit;**

*** Decamevit;**

*** Kvadevit;**

*** Ascorbic acid;**

*** Undevit;**

*** Gendevit;**

*** Vitamin A – 20 drops, 2 times per day in combination with vitamin E oil solution of 10% 1 ml, at all 15 injections;**

*** Aevit, 1 ml daily intramuscular, 20 injections;**

*** Calcium pangamat – 1 tablet 2 times per day.**

Hyposensibilization therapy in marginal periodontitis:

- **CaCl₂ 10% - table spoon 3 times per day;**
- **Calcium gluconate – a tea spoon 3 times per day;**
- **Calcium glycerophosphate, 0.5 g, 3 times per day;**
- **Sodium thiosulphate 30% solution – 10 ml, 10 injections;**
- **Plasmol, solution 1.0 ml – subcutaneous, 8-10 injections;**
- **Prometazine, 0.025 g a tablet 2 times per day – 10 days;**
- **Diphenilhydramine, 0.05g a tablet 2 times per day – 10 days.**

The attitude to the periodontal teeth

Before the surgical periodontal treatment are taken necessary surgical measures to liquidate the microbial unrecoverable focuses of infection by conservative treatment:

- Extraction of periodontal teeth unrecoverable, with excessive mobility, IIIrd degree;**
- Endodontic treatment to teeth with I-II degree mobility (devitalization) and immobilization with a splint or prosthetic with metalo-ceramic bridge or crowns;**
- Premolarization to mandibular molars;**
- Radicular amputation, consists in devitalization the health roots and section the affected root (to maxillary molars the palatal root with periodontal pocket);**
- Extraction of radicular rests unrecoverable.**

Air flow therapy is a procedure which uses **air and water pressure** to deliver a controlled stream of specially processed powders in a slurry through the handpiece nozzle.

Fine particles of powders are propelled by compressed air in a warm spray and directed onto the surfaces of the teeth. This pressurized jet of air, water and powder removes surface stains, plaque and other soft deposits such as food particles trapped in between the teeth.



AIRFLOW PLUS POWDER

- Made from Erythritol – a sugar alcohol
- 14 micron particle size for the finest powder in dentistry
- Safe for comprehensive biofilm removal on every supra- and subgingival surface
- Strong enough to efficiently remove light to moderate stains

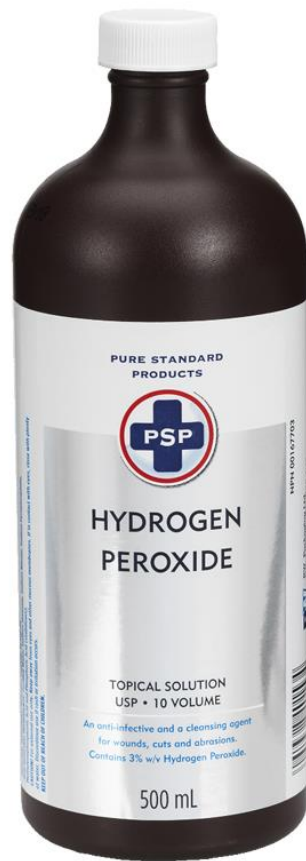
AIRFLOW PERIO POWDER

- Made from Glycine - a non-essential, biocompatible amino acid
- 25 micron particles provide gentle, comfortable treatment
- Removes biofilm and light stain; ideal for subgingival biofilm, implant maintenance, ortho brackets and restorative materials

AIRFLOW CLASSIC POWDER

- The smallest particle Sodium Bicarbonate powder
- 40 micron particle size increases patient comfort without sacrificing stain removal
- Intended for supragingival use on the hard enamel surfaces
- Available in four flavors!

H2O2 3%



CHX 0,05%



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Iodinol 1%



Rivanol 1%



Furaciline 1:5000



K₂MnO₄ crystals and solution



VAGOTHYL 36%

