Operational techniques in periodontology

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PERIODONTIUM
SUPPORTING TISSUES OF THE TEETH
1. GINGIVA
2. CEMENTUM
3. PERIDONTAL (SHARPEY’S) LIGAMENTS
4. ALVEOLAR BONE
DENTAL PLAQUE - CAUSATIVE FACTOR OF EVERY PERIODONTAL DISEASES
MASSIVE SUPRAGINGIVAL DENTAL CALCULUS
QUITE GOOD ORAL HYGIENE, BUT HUGE QUANTITY SUBGINGIVAL CALCULUS FORMATION
Periodontitis
Gingivitis
Dental plakk

Periodontitis

Gingivitis
Dental plakk

Periodontitis
GINGIVITIS:
DISEASE OF THE FREE GINGIVAL MARGIN
DEFENSIVE MECHANISMS AGAINST DENTAL PLAQUE
PERIODONTITIS:
IRREVERSIBLE DERANGEMENT OF THE ATTACHING APPARATUS
RESULT OF THE INSUFFICIENT GINGIVAL IMMUN-DEFENSE

TOOTH MOBILITY
ATTACHEMENT-LOSS
WHY DOES NOT EVERYBODY WITH POOR ORAL HYGIENE SUFFER FROM PERIODONTITIS???
Periodontitis

Gingivitis

Dental plakk

Risk factors:
- Genetics
- Behavioural
- Systemic conditions

Severe periodontitis
ROBUST SUPRA- AND SUBGINGIVAL PLAQUE AND CALCULUS

THE SUBGINGIVAL PLAQUE EXISTS INDEPENDENTLY,Creates a massive biofilm, which can be eliminated only by mechanical means of professional cleaning.
Progression: pocket formation, bone- and attachment loss
SEVERE ALVEOLAR BONELOSS
Cause related periodontal treatment: forgo the surgical therapy
Types of periodontal surgical therapy, aims

1. Resective period. surgery
2. Regenerative surgery
3. Mucogingival (perio plastic) surgery

Aims:
• support cause relared period. treatment, thorough root surface debridement with visual control
• pocket depth reduction (establish complete inflammation-free state)
• regain attachment, improve prognosis of the teeth
• gain a marginal gingiva and bone contour, which function and look like as the original
• improve esthetics, (reduce cervical hypersensitivity)
I. Resective period: surgical techniques

- Gingivectomy (conventional, internal bevelled reversed)
- Apically transpositioned flap
- Modified- Widman flap
I. Resective: Gingivectomy
Internal bevelled reversed incision
I. Resective: internal bevelled reversed gingivectomy
I. Resective: internal bevelled reversed gingivectomy
1. Resective: pocket surgery with flaps!!

THE INCISION FOLLOWS THE ORIGINAL GINGIVAL CONTOUR AND WE CUT THROUGH THE PAPILLA INTERDENTALLY IN THE MIDDLE, TRY TO PRESERVE AS MUCH GINGIVAL TISSUES AS POSSIBLE TO GAIN A BETTER INTERDENTAL FLAP CLOSURE.
I. Resective: apically transpositioned flap
APICALLY TRANSPOSITIONED FLAP AIMING POCKET DEPTH REDUCTION
APICALLY TRANSPOSITIONED FLAP + OSTECTOMY
1. Resective: modified-Widman flap
1. Rezektív: modified-Widman flap
1. Resective: modified-Widman flap
II. Regenerative surgical techniques:

• GTR (guided tissue regeneration) = MEMBRANES
• Biological modifiers (ENAMEL MATRIX PROTEIN = Emdogain)
• Bone fillers
• Combined techniques
II. Regenerative: GTR

II. Regenerative: GTR

Preoperative clinical and radiological pictures
II. Regenerative: GTR

The opened defekt
II. Regeneratív: GTR

Filling the defekt with bone filler and cover it with a resorbable membrane
II. Regenerativ: GTR

Wound closure
II. Regenerativ: GTR

Radiological result
preoperative - 6 months postoperatively
II. Regenerative: Emdogain (enamel matrix protein)

II. Regeneratív: Emdogain (zománcmártix protein)

Preoperative clinical and radiological pictures
II. Regenerative: Emdogain (enamel matrix protein)
II. Regeneratív: Emdogain (zománcmártix protein)
9th month result
II. Regenerative: Bone fillers
II. Regenerative: Combination (Emdogain + bone filler)

Preoperative clinical and radiological pictures
II. Regenerative: Combination (Emdogain + bone filler)

Root surface modification with Emdogain and filling the defect with mixed bone fillers.
II. Regenerative Combination (Emdogain + bone filler)

Root surface modification with Emdogain and filling the defect with mixed bone fillers.
II. Regenerative: Combination (Emdogain + bone filler)

6 months radiological result
III. Mucogingival surgery

- Gingival recession’s coverage
- Narrow attached gingiva widening
- Negative papilla
- Gingival asymmetry
- Shallow vestibular fold
III. Mucogingival surgery: recession coverage

Initial state
III. Mucogingival surgery: recession coverage

Surgical planning: Incision line of the coronally advanced flap

III. Mucogingival surgery: recession coverage

Correction of overhanging margins, root planing, conditioning with EDTA
III. Mucogingival surgery: recession coverage

Diagonal submarginal interdental incision, flap making, half-thickness flap preparation
Connective tissue graft harvesting

Deepithelialisation of the papillas, fixation of the graft, wound closure
III. Mucogingival surgery: recession coverage

Initial and current state

Initial

Current
III. **Mucogingival surgery: recession coverage**

- **Root planing**
- **Conditioning (EDTA)**
- **Coronally advanced modified tunnel technique**
III. Mucogingival surgery: recession coverage

Connective tissue graft harvesting from the palate

III. Mucogingival surgery: recession coverage

Pulling in the graft under the tunnel flap
III. Mucogingival surgery: recession coverage
Stabilize the tunnel flap coronally with sutures and applying Emdogain
III. Mucogingival surgery: recession coverage

Pre- and postoperative pictures
Thank You for Your attention 😊