FLAP TECHNIQUES FOR POCKET THERAPY

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OUTLINE

- Modified Widman Flap
- Undisplaced Flap
- Apically repositioned Flap
- Flap for regenerative therapy
  papilla preservation flap
  conventional flap
- Distal molar surgery
Rational

*Why do we do periodontal surgery?

*To provide access and direct vision of the root surfaces for thorough debridement. Because in some situation non–surgical therapy is not enough to clean the environment.
SURGICAL PERIODONTAL THERAPY SEEKS TO

- Improve the prognosis of teeth.
- Improve aesthetics.
LOCATION OF INTERNAL BEVEL INCISION

1. Modified Widman
2. Undisplaced
3. Apically Displaced
SCALLOPING REQD. FOR DIFFERENT FLAPS
THE MODIFIED WIDMAN FLAP

- Ramfjord & Nissle (1974) described the modified Widman flap technique, which is also recognized as the open flap curettage technique.
ADVANTAGES

- the possibility of obtaining a close adaptation of the soft tissues to the root surfaces,
- the minimum of trauma to which the alveolar bone and the soft connective tissues are exposed
- less exposure of the root surfaces, which from an esthetic point of view is an advantage in the treatment of anterior segments of the dentition
**Disadvantages**

1. Technically demanding and exacting
2. Requires a high degree of technical skill
3. Interproximal flaps require exact placement
TECHNIQUE

- with a Bard-Parker knife (No. 11), the initial incision should be parallel to the long axis of the tooth and placed approximately 1 mm from the buccal gingival margin in order to properly separate the pocket epithelium from the flap
The initial incision is placed 0.5-1 mm from the gingival margin and parallel to the long axis of the tooth.
FOLLOWING CAREFUL ELEVATION OF THE FLAPS, A SECOND INTRACREVICULAR INCISION
The third incision is made perpendicular to the root surface
FOLLOWING PROPER DEBRIDEMENT AND CURRETTAGE OF ANGULAR BONE DEFECTS, THE FLAPS ARE CAREFULLY ADJUSTED TO COVER THE ALVEOLAR BONE AND SUTURED.
**Undisplaced Flap**

- Also known as internal bevel gingivectomy
- Differs from the modified widman flap in that pocket wall is removed with the initial incision
Technique

- Pockets are measured with a pocket marker & a bleeding point is created
The initial internal bevel incision is carried apical to the crest of bone.
Second/crevicular incision is made from the base of the pocket to the crest of alv. Bone
- Flap is reflected with the periosteal elevator from the first incision
- The interdental incision is made to delect the diseased connective tissue
Area is debrided of granulation tissue, tissue tags & scaling and root planing performed.
Area is flushed and flaps are secured with continuous sutures
APICALLY REPOSITIONED FLAP

Historical Background

The surgical technique developed by Nabers was originally denoted "repositioning of attached gingiva" and was later modified by Ariaudo & Tyrrell (1957). In 1962 Friedman proposed the term apically repositioned flap to more appropriately describe the surgical technique introduced by Nabers.
**TECHNIQUE**

- With # 11/15 BP blade an internal bevel is made.
- The beveling incision should be given a scalloped outline to ensure maximal interproximal coverage of the alveolar bone, when the flap subsequently is repositioned.
- Vertical releasing incisions extending out into the alveolar mucosa are made at each of the end points of the first incision, thereby making possible the apical repositioning of the flap.
COND.
A mucoperiosteal flap is raised and the tissue collar remaining around the teeth.
Osseous surgery is performed with the use of a rotating bur (A) to recapture the physiologic contour of the alveolar bone (B).
The flaps are repositioned in an apical direction to the level of the recontoured alveolar bone crest and retained in this position by sutures.
A PERIODONTAL DRESSING IS PLACED OVER THE SURGICAL AREA TO ENSURE THAT THE FLAPS REMAIN IN THE CORRECT POSITION DURING HEALING
Flaps for Regenerative Therapy

- Flaps designs should be such – maximum gingival tissues & papilla to provide retention of bone graft material
- Two flap designs - papilla preservation
  conventional Flap
Papilla preservation flap

- In order to preserve the interdental soft tissues for maximum soft tissue coverage following surgical intervention involving treatment of proximal osseous defects, Takei et al. (1985) proposed a surgical approach called papilla preservation technique.
- Later, Cortellini et al. (1995b, 1999) described modifications of the flap design to be used in combination with regenerative procedures.
- For esthetic reasons, the papilla preservation technique is often utilized in the surgical treatment of anterior tooth regions.
**Advantages**

1. Esthetically pleasing
2. Primary coverage of implant material
3. Prevention of postoperative tissue craters
DISADVANTAGES

- 1. Technically difficult
- 2. Time consuming
CONTRAINDICATION

- Narrow embrasures
TECHNIQUE
INTRASULCULAR INCISIONS ARE MADE AT THE FACIAL AND PROXIMAL ASPECTS OF THE TEETH
Intrasulcular incision is made along the lingual/palatal -lunar incision made across each interdental area.
A CURETTE OR INTERPROXIMAL KNIFE IS USED TO CAREFULLY FREE THE INTERDENTAL PAPILLA FROM THE UNDERLYING HARD TISSUE.
The detached interdental tissue is pushed through the embrasure with a blunt instrument to be included in the facial flap.
The flap is replaced and sutures are placed on the palatal aspect of the interdental area.
CONVENTIONAL FLAP
INTRASULCULAR INCISION IS MADE WITH #12 BLADE
A CONVENTIONAL MUCOPERIOSTEAL FLAP IS ELEVATED
DISTAL WEDGE PROCEDURES

- In many cases the treatment of periodontal pockets on the distal surface of distal molars is complicated by the presence of bulbous tissues over the tuberosity or by a prominent retromolar pad.
DISTAL WEDGE PROCEDURE

- Robinson 1966- distal wedge procedure
- This technique facilitates access to the osseous defect and makes it possible to preserve sufficient amounts of gingiva and mucosa to achieve soft tissue coverage.
DISTAL WEDGE PROCEDURE. SIMPLE GINGIVECTOMY INCISION (BROKEN LINE) CAN BE USED TO ELIMINATE A SOFT TISSUE POCKET AND ADJACENT FIBROUS TISSUE PAD BEHIND A MAXILLARY MOLAR.
Buccal and lingual vertical incisions are made through the retromolar pad to form a triangle behind a mandibular molar.
THE TRIANGULAR-SHAPED WEDGE OF TISSUE IS DISSECTED FROM THE UNDERLYING BONE AND REMOVED
The walls of the buccal and lingual flaps are reduced in thickness by undermining incisions (broken lines).
The flaps, which have been trimmed and shortened to avoid overlapping wound margins & sutured
INCISION SHOULD FOLLOW THE GREATEST AMOUNT OF ATTACHED GINGIVA
**Distal wedge—triangular design.** A, **Outline of triangular incision distal to the molar.** Note the outline of two small releasing incisions (A, B), which can be used if needed. B, **Cross-sectional view showing wedge removal and thick tissue.** C, **Undermining incisions are used to thin the tissue.** D, **Reflection of flaps for osseous correction.** E and F, **Cross-sectional and occlusal views of sutured tissue.**
A deep periodontal pocket combined with an angular bone defect at the distal aspect of a maxillary molar.
TWO PARALLEL REVERSE BEVEL INCISIONS, ONE BUCCAL AND ONE PALATAL, ARE MADE FROM THE DISTAL SURFACE OF THE MOLAR TO THE POSTERIOR PART OF THE TUBEROSITY
Buccal and palatal incisions are extended in a mesial direction along the buccal and palatal surfaces of the molar to facilitate flap elevation.