

Principles Of Periodontal Surgery

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INTRODUCTION

All the surgical procedures should be carefully planned. All patients should be adequately prepared medically, psychologically and practically for all aspects of the surgery.

Indications For Surgical Treatment

Impaired access for scaling & root planning, difficulties in accomplishing proper root debridement increase with increasing depth of the periodontal pockets, increasing width of the tooth surfaces, presence of root fissures, concavities and furcations, Impaired access for self-performed plaque control.

PATIENT PREPARATION

Outpatient Surgery

1. PATIENT PREPARATION

- 1 REEVALUATION AFTER PHASE I THERAPY:
- 2 This procedure eliminates lesions entirely. Render the tissues more firm and consistent, thus permitting a more accurate and delicate surgery. Acquaint the patient with the office and the operator and assistants, thereby reducing the patient's apprehension and fear.
- 3 EMERGENCY EQUIPMENT:
- 4 Operator, assistants and office personnel should be trained to handle all possible emergencies that may arise. Most common emergency, syncope is due to fear and anxiety which is followed by weakness, pallor, sweating, coldness of the extremities, dizziness, slowing of pulse. A history of previous syncopal attacks should be explored.
- 5 c. MEASURES TO PREVENT TRANSMISSION OF INFECTION
- 6 Universal precautions including protective attire and barrier techniques like use of disposable sterile gloves, surgical masks, and protective eyewear. Surfaces that cannot be sterilized must be covered with aluminium foil or plastic wrap. Special care needs to be taken when using and disposing of needles and scalpel blades.
- 7 d. SEDATION AND ANESTHESIA
- 8 Sedation & anesthesia are the most reliable means of providing painless surgery. Area to be treated should be anesthetized by regional block & local infiltration. Neurotic patients should

be given anti anxiety or sedative hypnotic agents through inhalation, oral, intramuscular, intravenous routes. Patients with mild anxiety should be given nitrous oxide and oxygen inhalation sedation and oral administration of benzodiazepine for Mild-moderate anxiety.

9 e. LOCAL ANESTHESIA IN PERIODONTAL SURGERY

10 Incorporation of adrenergic vasoconstrictors into LA can allow minimal bleeding during surgery. Use of LA without a vasoconstrictor in periodontal surgical procedure is counterproductive because the vasodilating properties will increase bleeding at the surgical site. Epinephrine is the vasoconstrictor of choice and its concentration is 1:80,000(12.5mg/ml).

11 f. SCALING AND ROOT PLANING

12 All exposed root surfaces should be carefully explored and planed. Furcations, deep pockets often have rough areas or even calculus also should be planed. The assistant retracting the tissues and using the aspirator should also check for the presence of calculus and the smoothness of each surface from a different angle.

13 g. HEMOSTASIS

14 It provides clear view of the surgical site, essential for wound debridement and scaling and root planing. It prevents excessive loss of blood into the mouth, oropharynx and stomach. Periodontal surgery can produce profuse bleeding, especially during initial incisions and flap reflection. Application of pressure to the surgical wound with moist gauze can control site-specific bleeding. Use of LA with vasoconstrictor may also be useful. If a large vessel is lacerated, a suture around the bleeding end may be necessary to avoid hemorrhage.

15 h. PERIODONTAL DRESSINGS (PERIODONTAL PACKS)

16 It minimizes the post operative infection & hemorrhage, facilitates healing by preventing surface trauma during mastication, protects against pain induced by contact of the wound with food or tongue during mastication.

TYPES OF PERIODONTAL PACKS

1. EUGENOL PACKS (include the Wondr-Pak. It has a reaction of zinc oxide and eugenol. The addition of zinc acetate, accelerator gives a better.
2. NON EUGENOL PACKS(Reaction between metallic oxide and fatty acids) .
3. BARRICAID (light cured dressing).

OTHER PACKS:

Non Eugenol Dressings

- 1 CROSS PACK: It consists of colophony powder, zinc oxide, tannic acid, bentonite and powdered neomycin sulphate. Cross Pack is added as a filler to Coe-Pak to give more body to the material.
- 2 PERIPAC-a paste containing calcium sulphate, zinc sulphate, zinc oxide, polymethyl methacrylate, dimethoxy tetraethylene glycol, ascorbic acid, flavor and iron oxide pigment. It is indicated as a dressing following gingivectomies and papillectomies, deep curettage, reattachment surgery and gingival repositioning.
- 3 SEPTOPACK: contains amyl acetate, dibutyl phthalate, butyl polymetacrylate, zinc oxide, zinc sulphate and excipient. It is a self hardening plastic paste containing fibers in its mass. It can also be combined, as a neutral medium, with some medicines so that they can be kept in place easily on the gingiva or tooth or at the alveolar ridge level.
- 4 PERIOCARE: It comes in a 2-paste system: 1 contains a paste of metal oxides in vegetable oil, and the other contains a gel of rosin suspended in fatty acids. Equal amounts of the pastes are dispensed, mixed and applied.
- 5 PERIOPUTTY: noneugenol dressing containing methylparabens and propylparabens for their effective fungicidal properties and benzocaine as a topical anesthetic.
- 6 PERIOGENIX: contains perfluorodecalin, purified water, glycerin, hydrogenated phosphatidylcholine, cetaryl alcohol, polysorbate 60, tocopheryl acetate, benzyl alcohol,

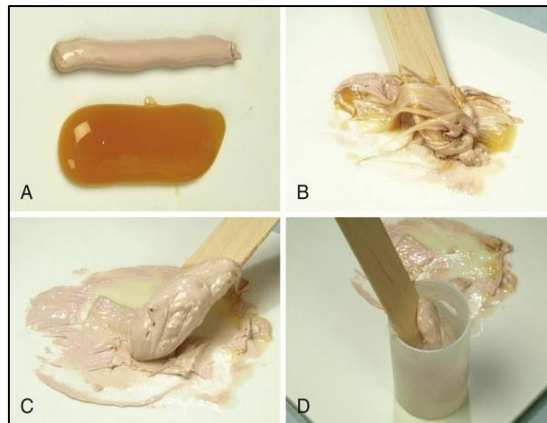
methylparaben, propylparaben and oxygen. It has been said that this dressing accelerates healing of postoperative surgical wounds.

- 7 DRESSINGS CONTAINING NEITHER ZINC OXIDE NOR EUGENOL: The third group of periodontal dressings consists of cyanoacrylate dressing, light cure dressing, collagen dressing and mucoadhesive/stomahesive dressing.
- 8 LIGHTCURE DRESSINGS: It is a single-component, light-activated dressing material supplied in a syringe for direct placement. It is cured in increments with a visible light curing unit and retains its elasticity on setting.
- 9 COLLAGEN DRESSINGS: are biological dressings which create a physiologic interface between the wound and the environment and encourage healing by deposition and organization of the fibers in granulation tissues formed freshly in the wound bed.

Coe Pack:

It consists of 2 pastes the base paste which contains zinc oxide with added oils and gums, and lorothidol which is a fungicide related to hexachlorophene. The catalyst paste contains coconut fatty acids thickened with colophony resin or rosin and chlorothymol as an antibacterial agent. Equal lengths of material are placed on a waxed paper pad and mixed using a wooden tongue depressor until a thick consistency and uniform color is reached. The setting time can be altered by adding a few drops of warm water during mixing or by immersing the pack into a bowl of warm water just after mixing. Once the paste loses its tackiness, it can be handled and molded using gloves lubricated with water or petroleum. The pack is then formed into pencil-sized rolls that are then mechanically interlocked in the facial and lingual interproximal areas.

PREPARATION AND APPLICATION OF COE PACK:



Postoperative Instructions

Persistent bleeding after surgery-pack is removed, bleeding points are located, and the bleeding is stopped with pressure, electrosurgery or electrocautery. Area is repacked once bleeding stops. Sensitivity to percussion caused by extension of inflammation into the PDL. Pack should be removed and gingiva checked for localised infection which should be incised to provide drainage. It can also be caused by excess pack which interferes with occlusion. First 2 postoperative days a soft, painless swelling of the cheek in the surgical area will be seen due to a localized inflammatory reaction to the procedure. It subsides by fourth postoperative day. If persists, amoxicillin (500mg) should be taken every 8 hours for 1 week. Feeling of weakness, washed out fatigue feeling for about 24 hours after surgery is common. This can be prevented by premedication with amoxicillin every 8 hours, beginning 24 hours before the next procedure and continuing for 5 days postoperatively.

HOSPITAL PERIODONTAL SURGERY:

1. Patient apprehension
2. Patient convenience
3. Patient protection

Patient Preparation

Sedative should be given the night before surgery (Benzodiazepine). Nervous patients can be given benzodiazepine on the morning of surgery.

Anesthesia

Local anesthesia permits unhampered movement of the head, necessary for optimal visibility. When general anesthesia is indicated it is administered by an anesthesiologist. Local anesthesia also should be given to reduce bleeding and ensure comfort for the patient.

Positioning And Periodontal Dressing

Patient should be lying down and the table either flat or with head inclined upto 30degrees. In GA, it is advisable to delay placing the periodontal dressing until the patient has recovered sufficiently to have a demonstrable cough reflex.

Postoperative Instructions

Adult supervision at home is recommended for upto 24 hours after surgery as the patient will be drowsy. Postoperative Instructions should be given to the responsible adult accompanying the patient.

CONCLUSION:

Thus periodontal therapy is directed at disease prevention, slowing or arresting the disease progression and also regenerating the lost periodontium.

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