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Oral hygiene measures

1. *Cleaning between the teeth*

A. Wood points (tooth picks): is effective only where sufficient inter dental space is available to accommodate it. It is used in case of bone resorption causing spaces between the teeth.

Types:

- Triangular (best one).
- Round.
- Rectangular.

According to materials used, we have:

- Wood resilient pick, moist in saliva and use it.
- Plastic pick, not good and not preferred to be used.

B. Dental floss: needs digital skills, time consuming than wood points. Take about 30 cm, tie it around index finger of both hands and use it between teeth toward the proximal surfaces of the teeth, but no downward to avoid damaging the gingiva. There are two types:

- Waxed type. Used in case of proximal box class 2 amalgam filling because it is slippery but should not be used prior to fluoride application because it forms a layer on the tooth surface that prevent the action of fluoride.
- Unwaxed type: is used before fluoride application an in normal situation.

When teeth brushing is accompanied by flossing, more plaque tend to be removed from the proximal surfaces than by teeth brushing alone.

C. Inter space brush (single-tufted tooth brush): It was introduced to improve access to tipped, rotated or displaced teeth and teeth affected by gingival recession. The combined use of the inter space brush and wood points compensates for the lack of effectiveness of wood points alone with lingual embrasures. Inter space brush is of limited value on its own at cleaning proximal surface aspect for surfaces adjacent to an extraction space.

D. Inter dental brush (bottle brush): used for cleaning of open interdental spaces. Types include:
   - Large type, held by its wire handle.
   - Small type, provided with metal or plastic handle.

E. Irrigation devices: these provide a steady or pulsating stream of water escaping through a nozzle under pressure. Oral irrigation should not be used as a substitute for teeth brushing, and are time consuming and messy to use.

Frequency of teeth cleaning:

a) The removal of accumulated plaque must be at intervals which are sufficiently frequent to prevent pathological effects.
b) Individuals with healthy gingiva and no history of periodontal disease can prevent gingivitis by very thorough mechanical plaque removal every 24 hours.
c) Following the first clinical signs of inflammation, the introduction of thorough oral hygiene measures, twice daily, achieve a resolution of gingivitis within few days.

Natural methods of teeth cleaning

- ✓ Fibrous foods, like apple and carrot, because these foods contain fibrous filaments and malic acids which stimulate the flushing of saliva.
- ✓ Sugar free chewing gum that stimulate the flow rate of saliva.

Chemical methods

Chemicals can help to reduce plaque formation.

Chlorhexidine: is a chemical anti-septic material that can be bactericidal in high concentration and bacteriostatic in low concentration, can kill microorganisms and inhibit their growth respectively, according to the concentration that has been used.

Is the most effective method of chemical plaque control, has a broad spectrum of bactericidal activity against gram- positive and gram- negative organisms. The positively charged (Ch) binds to bacterial cell wall and to various oral surfaces including the hydroxyl apatite of the tooth enamel, the organic pellicle covering the tooth surface, mucous membrane and salivary protein. Besides acting immediately on oral bacteria, it is retained on teeth surfaces to exert a prolonged bactericidal effect and subsequently as its concentration falls, a bacteriostatic effect for several hours. It interacts with bacteria, damaging permeability barrier and precipitating cytoplasm. The pharmacodynamics of chlorhexidine in the mouth indicate that the frequency of application should not be less than twice daily (0.2% aqueous mouth rinse in 10 ml doses for 1 minute twice daily), reduce salivary bacterial count by 85-95%. Also used to prevent plaque accumulation and gingivitis development in subjects whose habitual mechanical cleaning is suspended.

Types of administration:

- Mouth rinse.
- Tooth paste (1%).
- Gel (1%).
- Irrigator or spray (1.5-2.0 ml of 0.2 % solution).

Dose of mouth rinse:

- ❖ 10 ml of 0.2% twice daily.
- ❖ 15 ml of 0.12% twice daily.
  5-7 days and duration of rinsing is 2-3 minutes.

Side effects:

a. Taste disturbance. It has unpleasant taste and produce disturbances in taste sensation which may last for several hours.
b. Staining. The development of yellow brown stain on teeth, tongue and margins of anterior restorations. There is an interaction between locally adsorbed chlorhexidine and factors derived from the diet like substances in tea and coffee. This interaction is responsible for the characteristic stain.
c. Desquamative lesion of the oral mucosa. Occur in small number of individuals, perhaps due to precipitation of acidic mucins and proteins that

cover and protect the mucous membrane. This makes the epithelium vulnerable to mechanical trauma or to cytotoxic effect of chemicals including chlorhexidine itself.

d. Parotid gland swelling. A few cases of unilateral or bilateral parotid gland swelling have been reported after its use. The clinical feature is suggestive of mechanical obstruction of the parotid duct.
e. Supra gingival calculus formation. There is also tendency for more supra gingival calculus to be formed. The mechanism for this effect may involve the suppression of acidogenic plaque bacteria and the pH at the tooth surface being raised, leading to precipitation of calcium and phosphate.

Professional cleaning

1. Scaling and root planning
2. Polishing

Scaling alone is sufficient to completely remove plaque and calculus from enamel, leaving a smooth clean surface which will facilitate plaque removal for the patient.

Mechanical instrumentation of the root aims to produce a surface that is biologically acceptable to the periodontal tissue.

Polishing enamel may result in reorientation of surface crystal to create a smoother surface which will facilitate plaque removal for the patient.

Supportive periodontal care. Aims:

1. Prevent the recurrence and progression of periodontal disease.
2. Prevent or reduce tooth loss.
3. Increase the probability of diagnosing and treating, in a timely manner, other oral diseases.