Methods and tools for the prevention of periodontal inflammatory disease

The basis of periodontal inflammatory disease prevention is individual and professional removal of dental plaque and the use of topical anti-inflammatory agents. If the dentist in the clinic and the patient at home act appropriately, the initial signs of inflammation (gingivitis) can disappear, and in more severe forms of inflammation (periodontitis), the destruction of periodontal tissues will not progress.

The success of prophylaxis is therefore highly dependent on the patient's motivation and disposition for success.

Algorithm of prophylaxis in patients with inflammatory periodontal disease:

1. Dental examination with determination of periodontal index values.

2. Supervised brushing of teeth with determination of hygienic index value. 3.

3. training in tooth brushing and use of different hygiene devices (flossing, interdental brushes, toothpicks, irrigators) on dental hygiene models. 4.

4. individual selection of hygiene products.

5. Professional oral hygiene (with a frequency of once every 3-6 months, depending on the severity of inflammation and oral hygiene).

6. Elimination of local factors contributing to periodontal inflammation:

- Filling of carious cavities;

- restoration of the contact point between teeth, removal of overhanging edges of fillings;

- replacement of incorrectly fabricated artificial crowns;

- referral to specialists for small ante-mouth plastics, frenulum and orthodontic treatment.

7. Dental education, including motivation for oral care and dietary recommendations (restriction of easily fermentable carbohydrates, inclusion of solid food in the diet, sufficient protein, fruit and vegetables, prevention of hypovitaminosis A, C, D, calcium deficiency).

The length of the interval between visits depends on the risk of inflammation in the periodontal tissues: the higher the risk, the shorter the interval should be.

Indicators of a high risk of periodontal inflammation are:

- a high hygiene index score;

- multiple deposits of tartar;

- large number of areas of bleeding on probing;

- other signs of periodontal tissue damage (periodontal pockets of varying depth, gingival recession, tooth mobility);

- large number of cavities;

- presence of somatic pathology;

- smoking.

**Recommendations for oral care in patients with inflammatory periodontal disease**

Toothbrushes

It is recommended to use manual toothbrushes with soft bristles, as well as electric toothbrushes (with rotating head, sonic, ultrasonic), which are especially useful for those with insufficient manual skills or with motor handicap.

Teeth brushing

Manual tooth brushing with a manual toothbrush is recommended using the standard or the Bass method. The latter is especially effective for removing plaque along the gingival margin and under the gumline. It is necessary to teach the patient how to brush the teeth in advance and perform a controlled brushing.

Frequency of brushing should be at least 2 times a day, more often if recommended by the doctor.

Toothpastes and tooth rinses

Toothpastes and tooth rinses with anti-inflammatory ingredients are preferable:

**- herbal extracts** - anti-inflammatory, antibacterial, astringent, hemostatic action;

- **antiseptics** (chlorhexidine, triclosan, cetylpyridinium chloride, a composition of essential oils, hexetidine, tin fluoride) - antibacterial action, prevent plaque formation;

- **Components that reduce tartar formation** (pyrophosphates, zinc salts) - slow down the transformation of amorphous calcium phosphate into crystalline forms, inhibit crystal growth;

- **salt additives** (sodium bicarbonate, salts and minerals of the dead sea, liman brine) - antiedematous, antiseptic action;

- **antioxidants** (mexidol) - reduction of intoxication, restoration of microcirculation, elimination of edema and reduction of gingival bleeding, increase of local immunity, acceleration of regeneration of oral mucosa;

- **vitamins** (A, B5, C, E, P, coenzyme Q10) - improve metabolic processes, accelerate regeneration of the oral mucosa.

Oral hygiene products with herbal ingredients

Natural herbal ingredients (herbal extracts and essential oils) are widely used in oral hygiene products with anti-inflammatory properties.

Oral hygiene products with natural herbal ingredients have

- a wide range of therapeutic and prophylactic effects;

- Highly effective for reducing inflammation and bleeding gums;

- do not cause changes in the composition of normal microflora and biofilm sensitivity to antibacterial agents;

- do not have a damaging effect on hard and soft tissues of the mouth, dental restorations;

- Can be used regularly for a long period of time.

Parodontax® series toothpastes are representative of this group: parodontax® Classic

Oral hygiene products with antibacterial ingredients

Oral hygiene products containing antibacterial components (antiseptics) are widely used for controlling plaque formation and inflammation of periodontal tissues.

Oral hygiene products with antibacterial components have the following requirements:

- activity against microorganisms causing periodontal inflammatory disease;

- ability to inhibit the adhesion of bacteria to the surface of teeth;

- effectiveness in reducing plaque formation and inflammation in periodontal tissues;

- no significant shifts in the composition of the resident microflora and changes in biofilm sensitivity to antibacterial agents;

- no damaging effect on hard and soft tissues of the mouth during long-term use

LISTERINE® (Listeria) is the world's first patented antibacterial mouthwash, created back in the 19th century (in 1879).