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Modern Interpretation of Root Canal Treatment and Modern Clinical Diagnostic Methods in Periodontitis

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Annotation: Treatment of periodontal diseases with local drugs involves the use of agents that affect the etiological factors, pathogenetic mechanisms and symptoms of the disease. Dosage forms are dosed, methods of administration of drugs are adapted for local use. Drugs can be used in the form of rinses, irrigation, gum dressings and medical plates.

Keywords: Periodontal diseases, origin, diagnosis, prevention, pathogenesis, prognosis and treatment.

Introduction: Antibacterial drugs are used as etiotropic treatment, which affect the cause of the disease and prevent secondary infection. Antiseptic agents are most often used (2-3% hydrogen peroxide solution; chlorhexidine bigluconate - 0.05%; lysoplak; chlorophyllipt; iodinol; lozenges - ambazon, sebidin). Antibiotics can be used in the form of rinsing, application or parenteral (tetracycline ointment; synthomycin emulsion; gramicidin - 2% solution; microcide; levovinizol - aerosol; 0.1% gentamicin sulfate ointment; lincomycin - parenteral). Less commonly used are sulfonamides (streptocide - in powder form; ingalipt - aerosol), drugs of the nirofuran series (0.02% aqueous solution or 0.2% furatsillin ointment).

Pathogenetic treatment includes the use of anti-inflammatory drugs - non-steroidal (sodium mefenaminate in the form of a paste, ointment; romazulan; 10% methyluracil ointment; etonium), steroidal (0.5-2.5% hydrocortisone, 0.5% prednisolone ointment, dermozolon). The same drugs have an anti-edema effect.

Oil solutions of vitamins A, E, rosehip oil, carotolin, Aevit, methyluracil, solcoseryl and vinylin have an epithelializing and reparative effect. Galactosorbin and calcium salts help reduce the permeability of the vascular wall.

The most effective is the use of broad-spectrum agents. So, ethionium, dimexide, parodium, eludril have anti-inflammatory, local anesthetic, antimicrobial, epithelizing properties.

Symptomatic treatment includes painkillers: parenteral (in the form of infiltration or conduction anesthesia), topical in the form of solutions, ointments, aerosols (5% anesthesin, 1% pyramecaine ointments, ethonium, pharmaethyl).

Local hemostatic drugs are used when indicated (galascorbin, hemostatic sponge, bioplastic, capramine, racetiptine, hemocollagen, hemofibrin).

Proteolytic enzymes are used in cases where softening and plaque removal are necessary (trypsin, chymotrypsin, chymopsin, papain).

Parodium paste (Pierre Fabre) containing chlorhexidine and rhubarb extract is applied in a 0.2-0.5 mm layer along the marginal gum and compacted with a tampon.

The composition of the therapeutic paste for the treatment of periodontal disease Vitadont (VladMiVa) based on lecithin includes natural antioxidants, vitamins C, E and a beta-carotene complex. The paste is applied to the dried mucosa, periodontal canals and gum margin and kept for several hours.

Vokopack paste (VOKO) is used in the treatment of periodontitis, after gingivectomy and other surgical interventions.

Research methods and materials: Diplen-denta (Nord-Ost) - plates for the treatment and prevention of inflammatory diseases of the oral cavity. Several types are produced: Diplen-Denta X - with chlorhexidine; Diplen-Denta HD - with chlorhexidine and dexamethasone; Diplen-Denta LH - with chlorhexidine and lidocaine; diplendenta G - with gentamicin; diplendenta L - with lincomycin; diplendenta M - with metronidazole; Diplen-Denta F - with sodium fluoride and chlorhexidine; Diplen-denta C - with solcoseryl.

KP-plast (VladMiVa) - self-absorbable plates measuring 50x80 mm for the treatment and prevention of inflammatory diseases of the oral cavity. Several types are produced: KP-plast-phyto contains natural polysaccharides, extracts of chamomile, yarrow, calendula, vitamin C, plasticizers and antioxidants; KP-plast-vita - a plate based on natural polysaccharides, as well as vitamins C, E and beta-carotene; KP-plast antimicrobial - a plate based on natural polysaccharides and polypeptides, contains chlorhexidine and metronidazole; KP-plast-anesto - a plate with anesthetic and vitamins; KP-plast-hemostatic. To use, cut off the required part of the plate and place it on the affected area of the gum. Hold it for 1 hour. The course consists of a 10-day program, if necessary, the course is repeated after 10 days.

Septo-Pak (Septodont) is a gingival dressing containing amyl acetate, butyl phthalate, zinc oxide, and zinc sulfate. It can be used with topical periodontitis medications and after periodontal surgery.

Solcoseryl dental adhesive paste ("Solco") contains an extract of bovine blood (2.125 mg per 1 g of paste) in combination with polidocanol (local anesthetic). A strip of paste 0.5 cm long is applied to a previously dried area of the mucous membrane without rubbing and slightly moistened with water. The procedure is repeated 3-5 times a day after meals and before bedtime. In the treatment of bedsores from removable dentures, the paste is applied to a dry denture and moistened with water. For each course - 5 g (1 tube).

Treatment of herpetic gingivitis is aimed at etiopathogenetic factors and takes into account the severity of the disease. Complex therapy includes general and local effects. From the first days of the disease, it is necessary to use antiviral ointments (0.25% oxolin; 0.25-0.5% florenal; 0.25-0.5% tebrofen; 50% interferon; 0.25% bonafthon; 0.75% gliderin; 0.25% heliin; 0.25% riod; 0.25% alliin). Modern antiherpetic drugs are especially effective: acyclovir ointment, herpevir, 2% solution of zovirax. It is recommended to use them repeatedly (3-4 times a day) after treating the oral mucosa with an antiseptic.

Results: In the treatment of the oral mucosa, it is recommended to use painkillers: 5% anesthesin emulsion, 1% pyromicaine ointment. As an antiseptic, the following are used: silver birch (buds, leaves, juice), Scots pine (pine buds, resin, needles), eucalyptus leaves, Kalanchoeula; "Elekasol" collection (valerian, chamomile flowers, licorice roots, sage and eucalyptus leaves, calendula flowers). These agents have an epithelializing, anti-inflammatory, antifungal and antiviral effect against the herpes virus.

When treating the oral mucosa, it is recommended to use painkillers: 5% anesthesin emulsion, 1% piromicaine ointment.

During the remission period of the disease, keratoplastic preparations are of leading importance: rosehip and sea buckthorn oil, carotolin, solcoseryl ointment and jelly, vinylin, vitamins A, E, oil solution of "Giposol", "Vinisol".

General treatment of herpetic stomatitis should be carried out in moderate and severe forms of AGS. In the early stages of the disease, antiviral drugs are prescribed depending on the age dosage: bonafton 0.1, alpizarin 0.1, helipin 0.1, 2 or 4 tablets per day for 5-10 days. Acyclovir (herpevir, verolex, cyclovir) has high selectivity and low toxicity against the herpes virus. Adults should take 200 mg of acyclovir 5 times a day every 4 hours. For children under 2 years of age, the drug is prescribed 100 mg 5 times a day, and after 2 years of age, the dosage is the same as for adults. Timely administration of medications reduces the risk of recurrence of herpes infections in the future.

At the peak of the disease, physiotherapy is usually prescribed: the use of ultraviolet radiation, HNL, transcutaneous laser blood biostimulation, as part of general treatment, hyposensitizing therapy (suprastin, diazolin, tavegil, pipolfen, etc.) is carried out in age-appropriate doses. Complex therapy includes immune system stimulants: lysozyme - 75-100 mg daily for 5-10 days; human leukocyte immunoglobulin and antiherpetic immunoglobulin, 1.5-3.0 ml once every 3-4 days (2 or 3 times); leukocyte interferon, cycloferon 2.0 - 1 time per day (1, 2, 4, 6, 8th day); thymalin; methyluracil, sodium nucleinate, decaris (levamisole), echinacea preparations (immunal, estifan).

At the peak of the disease, physiotherapy is prescribed: the use of ultraviolet radiation, HNL, and transcutaneous laser blood biostimulation.

A balanced diet requires the intake of sufficient fluids: liquid, non-irritating, high-calorie food.

Treatment begins with individual oral hygiene and recommendations for the selection of hygiene products after identifying the common cause: a soft toothbrush, non-abrasive toothpaste. Mouthwash involves the use of solutions with antibacterial effects. Hemostatic agents are used for appropriate indications in the form of applications (hydrogen peroxide, capramine, alascorbic, aminocaproic acid), medicinal plates (KP-plast-hemostatic), hemostatic sponge, capramine, hemocollagen, hemofibrin.

Professional hygiene is carried out gently, on individual segments of the jaw, then drugs are used to reduce bleeding. During the removal of dental plaque, abundant irrigation with antiseptic solutions is performed (chlorhexidine 0.05%; furatsilin 1:5000). In case of severe pain, pain relief is performed: application or injection. Lozenges (sebidin, faringosept, drill) can be prescribed for home use.

This includes painkiller applications (2% oil solution of anestezin, 1% pyromikain ointment), lysozyme baths (1 cup boiled water, 1 egg white and 1/4 teaspoon of salt), rinsing with herbal decoctions (chamomile, St. John's wort), chlorophyllipt. Enzymes (trypsin, chymotrypsin, pancreatin) can be used to cleanse the surface of wounds and erosions from necrotic plaque.

When epithelialization begins, it is necessary to use agents that stimulate reparative processes in tissues (carotolin, sea buckthorn and rosehip oil, vinylin, vinizol, solcoseryl ointment and jelly, etc.), immunostimulants (1% sodium nucleinate solution, 5% methyluracil ointment).

Discussion: Prevention of exacerbations consists in eliminating microtraumas of the oral mucosa, allergens that cause hypersensitivity of the body, prescribing desensitizing agents, general strengthening therapy and hardening of the body. Physiotherapy methods of treatment include ultraviolet irradiation of lesions (low level of radiation). Power 100 mW / cm2 for 2 minutes, the number of fields is not more than 5, a course of up to 10-15 sessions. In severe cases, intravenous administration of blood with GNL is indicated for 20 minutes, a course of 10 sessions of magnetic

autohemotherapy (repeated twice a year with a break between repetitions) (blood taken from a vein in a syringe is placed in a magnetic field for 10-15 minutes, after training it is injected for 10-18 minutes).

Prevention of exacerbations consists of eliminating microtraumas of the oral mucosa, allergens that cause hypersensitivity of the body, prescribing desensitizing agents, general strengthening therapy, and hardening of the body.

It includes the elimination of local irritants, teaching occupational hygiene and individual oral care. The patient is advised to choose a soft toothbrush, interdental cleaning agents, non-abrasive toothpaste based on herbal preparations, preferably in the form of a gel. Local drug treatment involves the use of drugs with an epithelializing effect: oil solutions of vitamins A, E, rosehip oil, carotolin, Aevit, methyluracil, solcoseryl, vinylin. The same drugs stimulate the regeneration of connective tissue. Oil solutions of vitamins A, E and carotolin are used in the form of applications 3-5 times a day. Medicinal elixirs and herbal infusions (sage, chamomile) can be prescribed in the form of rinses.

Sensitivity of the gums to irritants is an indication for the prescription of painkillers. In the form of applications, you can use 5% anesthesin emulsion and 1% piromecaine ointment.

In addition to drug treatment, laser therapy is recommended. Radiation technique: remote, stable, light guide with a conical nozzle is located 3 mm from the gum surface, the diameter of the light spot is 3 mm. Physical parameters: LILI in the red range of the spectrum, power 5 mW, PPM ~ 70 mW / cm2, exposure time 40 seconds, radiation dose per area 2.8 J / cm2, 10 radiation areas per session. Treatment course - 10 sessions.

During the first visit, motivation and personal hygiene training are provided. Depending on the clinical situation, a toothbrush, interdental products and toothpaste are selected. If dense plaque is detected and the gums do not bleed, a very hard toothbrush and abrasive toothpaste are recommended.

In other cases, medium-hard brushes and a therapeutic and prophylactic toothpaste containing components with an anti-inflammatory effect (elgydium) are chosen.

Professional hygiene is carried out by a dentist in several stages. The number of visits depends on the method of plaque removal. Using the Vector system allows you to treat the dental arches in one session. The volume scale allows you to limit yourself to two stages. Manual removal requires an additional visit to polish the root surfaces.

During the first or second visit, other local irritants are eliminated: overhanging edges of fillings, gaps between teeth, etc. Selective grinding of teeth is performed. Surgical intervention is performed according to indications: frenulum excision, removal of a tooth located outside the arch, etc.

Drug treatment depends on the picture of symptomatic gingivitis and can be used minimally. Rinsing, irrigation with solutions during professional hygiene. Home use of oil solutions of vitamins A, E in the presence of epithelial desquamation. Prescribed physiotherapy methods include hydromassage and electrophoresis with galascorbin. The effect of laser beams has a good effect.

Includes general and local effects. Treatment of concomitant disease is determined by a specialist in a particular field of medicine. In parallel, agents that increase the body's overall resistance may be recommended: vitamins, eleutherococcus extract in adaptive doses, potassium orotate.

Local influence includes motivation, training in individual oral hygiene with careful selection of products and methods used at home 2-3 times a day. In cases of impaired integrity of the epithelial lining of the gums (desquamative or ulcerative gingivitis), severe bleeding and hyperesthesia of the teeth, preference is given to a soft brush and a gel-like toothpaste based on herbal preparations. Dental floss, brushes and toothbrushes are used with extreme caution.

Sensitivity of the gums to irritants is an indication for the appointment of painkillers. In the form of applications, you can use 5% anesthesin emulsion and 1% piromecaine ointment. A soft diet is recommended. Vitamin therapy is indicated. Professional hygiene can combine the removal of abundant dental plaque with hand instruments, followed by treatment of the root surface with ultrasonic tips. The number of visits depends on the clinical picture and the methods used. Studies have shown that the use of an ultrasonic scaler allows for two sessions, while hand instruments require additional stages of work. The most gentle method is the use of the Vector system. A prerequisite is the reduction or elimination of irritant effects. A general dentist performs the correction of poor-quality restorations. Depending on the indications, tooth depulpation can be performed.

An orthopedist will repair poor-quality dentures, perform selective grinding, and, if necessary, drill loose teeth.

The choice of drugs depends on the clinical manifestations, i.e., signs of gingivitis. An obligatory element of drug treatment is the use of antiseptics (2% hydrogen peroxide solution, potassium permanganate, chlorhexidine bigluconate).

According to the instructions, hemostatic (capramine, hemofibrin), analgesic (ethonium, anesthesin), epithelializing (vitamins, sodium mefenaminate, methyluracil) agents are used. The patient can independently use solutions for rinsing, aerosols (proposol), lozenges (strepsil) and sprays.

Gum dressings (parodium, vokopak) and therapeutic plates (diplendenta) are used professionally.

Treatment of a patient with severe (chronic complex) periodontitis includes general and local treatment.

General therapy is carried out by a specialist in accordance with the underlying disease. In parallel, drugs are prescribed that increase the body's overall resistance: vitamins, eleutherococcus extract in adaptive doses, potassium orotate.

Conclusion: Treatment at the dentist consists of motivation, teaching individual oral hygiene with the selection of optimal tools and methods for use at home.

For desquamative or ulcerative gingivitis with bleeding gums and tooth hyperesthesia, a soft toothbrush and a gel-like toothpaste based on herbal preparations are selected. Dental floss, brushes and toothbrushes are used only after eliminating defects in the gingival mucosa.

Professional hygiene is performed gently, step by step, using painkillers. Extensive plaque removal is performed with hand instruments, followed by root surface treatment with ultrasonic tips and polishing pastes.

Before performing professional hygiene, loose teeth should be scaled. The number of visits depends on the clinical picture, in particular, the condition of the gums. The use of an ultrasonic scaler allows you to limit the number of sessions compared to manual instruments. A prerequisite for the specific treatment of periodontitis is the reduction or elimination of irritating effects. The dentist-therapist makes adjustments to existing restorations. According to indications, depulpation of the teeth is performed.

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