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Tactics for Increasing the Effectiveness of Treatment of Oral Changes Caused by Psychotropic Drugs

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Annotation: The results of a study involving 200 people with various diseases of the oral mucosa are presented. A comparative analysis of the clinical results of local treatment of diseases of the mucous membrane, red border of the lips and marginal periodontium with the antiseptic drug Miramistin is presented. In addition, the main aspects of indications and contraindications for the use of the drug by different categories of patients are highlighted. According to the results of the clinical study, Miramistin can be recommended as an effective tool in the complex treatment of diseases of the oral cavity and red border of the lips as part of combination therapy.

Keywords: Miramistin, oral mucosa.

Introduction: Treatment of diseases of the oral mucosa, red border of the lips and marginal periodontitis is one of the urgent problems of modern dentistry. The high rate of recurrence of diseases of the red border of the lips and oral mucosa after treatment indicates the need to find a comprehensive treatment using highly effective dosage forms [1]. The results of clinical studies have shown that the oral mucosa and red border of the lips, which are constantly exposed to external and internal factors, are often the site of manifestation of not only local and general somatic diseases, but also infectious and allergic diseases [7]. Changes in the oral mucosa are often the first signs of systemic diseases, such as diseases of the gastrointestinal tract, blood system, kidneys, endocrine organs, etc. The condition of the marginal periodontium is also closely related to the general somatic condition of the patient [8]. For example, during pregnancy, with changes in hormonal levels, under the influence of increased production of somatomammotropin, progesterone and gonadotropin, “gestational gingivitis” may develop. In patients with diabetes mellitus, clinical changes in the marginal periodontium may be the main signs of the manifestation of the disease [5, 6].

The patient's immune status and the neurogenic factor are of great importance. Given the frequent

occurrence of stress attacks, depressive and anxiety-phobic disorders in modern conditions (especially in megacities), diseases of the oral cavity, in particular, the red border of the lips, are developing [12].

Today, an integrated approach is adopted to the treatment of oral diseases. When developing a treatment plan, the most important thing is to determine the etiology of the disease. It is very important to determine the general somatic condition of the patient, which will subsequently allow to be more accurate in the appointment of general therapy drugs. One of the most important stages of local treatment remains antiseptic treatment of the pathological focus. When carrying out this stage, it is necessary to take into account the duration of the use of the antiseptic in order to exclude the possible development of oral dysbiosis [2, 15]. It is also important that the drug is allowed to be used by this category of patients in the treatment of marginal periodontal diseases in pregnant women [15].

Fundamental studies that contribute to a deeper understanding of the etiology and pathogenesis of diseases of the maxillofacial region have shown their connection with the somatic condition of the patient. The selection of local individual pharmacotherapy, taking into account the existing pathology, the severity and characteristics of its clinical course, as well as the presence of concomitant diseases in the patient, has made it possible to achieve certain successes in the treatment of most diseases of the maxillofacial region.

Today, there are a sufficient number of antiseptic agents for the treatment of oral diseases. The increase in the number of chronic diseases and the increase in complications of drug therapy force us to pay more attention not only to the effectiveness, but also to the safety of the therapy used.

The development of the Miramistin drug began at the end of the last century as part of the "space biotechnology" programs. The task of scientists was to find a universal antimicrobial drug that would work in the conditions of orbital stations. The confined space, constant temperature and humidity in habitable spacecraft create ideal conditions for the reproduction of microorganisms and fungi. Known agents turned out to be ineffective: after all, they all affected only certain types of microorganisms. As a result of long-term experimental work, a drug was developed, which was later called Miramistin®.

According to research, the most commonly used antiseptic drugs for the treatment of oral diseases are chlorhexidine bigluconate (0.05%) and Miramistin (0.01%).

Despite belonging to a large group of widely used antiseptics, there are a number of important differences between Chlorhexidine and Miramistin. These drugs differ in chemical composition and belong to different chemical groups: Chlorhexidine is 1,6-Di-(para-chlorophenylguanido)-hexane, used in the form of bigluconate (salt of gluconic acid); Miramistin - benzyldimethyl [3-(myristoylamino) propyl] ammonium chloride monohydrate - belongs to the group of cationic surfactants, that is, quaternary ammonium compounds. Chlorhexidine is active against gram-positive and gram-negative bacteria and only certain types of viruses and yeasts. Miramistin has been proven to have high activity against bacteria, fungi, viruses, chlamydia and protozoa, including multiresistant strains and microbial associations in the hospital. The ability of Miramistin to increase local immunity and enhance regeneration processes has also been proven. The drug has a bactericidal effect on gram-positive and gram-negative bacteria, ascomycetes of the genus Aspergillus and the genus Penicillium, yeast-like fungi (Rhodotorula rubra, Torulopsis gabrata, etc.) and yeast-like (Candida albicans, Candidai, etc.), as well as on pathogenic fungi, for example, Pityrosporum orbiculare (Malassezia furfur), including fungal microflora resistant to chemotherapeutic drugs. It has an antiviral effect, especially against complex viruses (influenza, herpes, measles, mumps, adenoviruses, etc.), as well as against chlamydia and protozoa. It should be noted that Miramistin increases the sensitivity of bacteria, fungi and protozoa to the effects of antibiotics. The synergistic effect allows you to reduce the duration of treatment and significantly increase the effectiveness of therapy. Thus, Miramistin has a wider spectrum of action than chlorhexidine. Since chlorhexidine accumulates in the body, it is used with caution by children

and women during pregnancy and lactation. Miramistin does not penetrate the skin and mucous membranes, and therefore does not have such contraindications. In addition, chlorhexidine can cause allergic reactions. The integration of Miramistin into medical practice is facilitated by the widespread use of this drug by various groups of patients.

Materials and methods: A total of 200 patients (80 men and 120 women) aged 20 to 40 years were examined and treated. A clinical examination was carried out using the generally accepted method (questioning and examination of patients), and a life and medical history was collected. The presence of previous and concomitant diseases, bad habits, occupational hazards was determined. If there were concomitant general somatic diseases, their anamnesis was collected, the nature and tactics of previously used treatment were determined. If the patient had allergies of unclear etiology, an additional examination was performed under the supervision of an allergist in a specialized institution, which included skin tests and the determination of specific immunoglobulin E in blood serum. Examination of the maxillofacial region included an external examination and examination of the oral cavity. Examination of the oral mucosa began with an examination of the red border of the lips and the corners of the mouth.

The oral cavity was assessed for hygienic condition, the presence of periodontal pathology, the color and moisture of the oral mucosa. The type of bite was determined, traumatic factors were identified. The main hygienic indicators were used to determine the hygienic condition (Fedorov-Volodkina, Green-Vermillion, Schiller-Pisarev test). Periodontal pathology is often identified as a concomitant disease of the oral cavity. When recording the periodontal condition, the presence of periodontal pockets, their depth and the severity of the inflammatory reaction are determined. In the presence of periodontal diseases, additional X-ray diagnostics (orthopanotomogram) with subsequent analyzes were performed.

Based on the survey, the characteristics of the clinical picture and the identification of patients' complaints, the following groups were identified:

Patients with general somatic diseases that have not worsened and have impaired the integrity of the oral mucosa as a result of acute or chronic trauma (biting, injury during dental intervention, injury during eating, etc.) - 100;

patients with periodontal disease during pregnancy - 40;

Patients with lesions of the oral mucosa and red border of the lips against the background of the debut or recurrence of herpes simplex (HSV-1 - Herpes simplex virus 1) - 60.

When examining patients with chronic trauma, ulcers or erosions of the oral mucosa are often detected. Our study identified 70 patients with chronic trauma. The most frequent localization was noted on the lateral surface of the tongue, on the cheeks, and less often on the red border of the lip. The clinical picture was variable and depended on the characteristics of the traumatic factor. The ulcer had an oval shape and a slightly depressed surface, surrounded by a hyperemic belt on the periphery, and in some cases keratinization was detected. The central part of the ulcer in all cases had a yellowish-gray color.

If erosion is detected at the site of chronic damage, there is a violation of the integrity of the mucous membrane, hyperemia and a blurred border along the periphery. In 40 patients, the mucosal defect was formed as a result of constant damage to the sharp edges of the crushed hard tissues of teeth and fillings.

In 50 patients, the cause was a bad habit of biting the mucous membrane, which was helped by:

anatomical features of the patient (increased cheek volume, as a result of which patients constantly bite the mucous membrane; they also have bruxism;

constant itching of the mucous membrane and red border as a manifestation of the instability of the psycho-emotional sphere.

Patients with chronic trauma underwent careful bimanual palpation to exclude malignancy. A history was taken of the wound appearance and previous treatments. All patients had persistent pain on palpation and no regional lymph nodes were tender.

A slightly different clinical picture was observed in patients with acute trauma. 30 patients with acute trauma were identified. Two patients had acute trauma to the oral mucosa as a result of dental intervention: drilling into the oral mucosa during treatment; the patient bit the cheek mucosa and the red border of the lip after treatment as a result of the effects of anesthesia.

In one patient, acute damage to the palatal mucosa was caused by a burn from extremely hot food. The burn manifested as erosion with catarrhal inflammation on the mucosa of the hard palate.

In all cases, the clinical picture of acute damage was represented by erosion with a moist surface below the level of the surrounding mucosa. Hyperemia and a border delimited by the surrounding mucosa remained. Severe pain persisted during palpation. The distribution of patients with traumatic lesions of the oral mucosa is presented in Table.

When examining patients with marginal periodontal disease during pregnancy, swelling and hyperemia of the gingival margin, loss of granularity of the gingival relief, and bulbous shape of the interdental papilla were observed (Fig. 2). All patients were somatically healthy. Examination revealed bleeding (papillary-marginal-alveolar index = 2), abundant hard and soft dental deposits. Examination did not reveal damage to the periodontal ligament. Two patients were in

I trimester of pregnancy, 2 - II. According to the patients, bleeding during cleaning appeared after the second month of pregnancy and continued until the time of treatment. During the examination, it was revealed that hygiene rules were not observed, since all patients were afraid of increasing bleeding by brushing their teeth too much.

When examining patients with lesions of the mucous membrane and red border of the lips against the background of the onset or recurrence of HSV-1, the following were found:

In 50 patients, the disease manifested itself as the appearance of vesicles on the red border of the lips. For all patients, this was a relapse of the disease;

In 40 patients, the disease recurred in a mild form (no more than 1-2 exacerbations per year), the rash slightly exceeded the red border of the lip;

An important trigger for relapse in one patient was a lip tattoo procedure performed the day before (Figure 3);

One patient was diagnosed with a severe form of the disease (according to the patient, relapses 5-6 times a year).

In this case, the rash was localized both on the skin and mucous membrane of the nose. The vesicles were round elevations of the epidermis, opalescent in content and in the form of a bubble with a very thin epithelial lining.

Clinical examination and treatment were performed at different periods of disease recurrence, so we observed both unopened vesicles and erosions formed after opening, and in some cases, crusts during the healing phase.

Results: Mild herpetic gingivostomatitis was detected in 10 patients. Hyperemia and swelling of the gingival margin were observed, which were focal in nature; Small grouped vesicles spread along the gums, which almost immediately burst, forming ulcers. No fusion of ulcers was observed. All patients noted a clear prodromal period with fever, general malaise, and a sharp change in mood (irritability). Both local and general treatment was carried out. For patients with acute trauma and lesions of the marginal periodontium against the background of pregnancy, only local therapy was performed. For patients with chronic trauma and herpetic lesions, treatment was complex. Local treatment included the following procedures: treatment of the wound surface with Miramistin (abundant irrigation from a sprayer or application of gauze turundas soaked in

Miramistin for 15 minutes) 4 times a day for 5 days; application of keratoplastic drugs, exposure time - once a day for 20 minutes in an outpatient clinic, 3 times a day at home (exposure time - 10 minutes). Traumeel S ointment was used as a keratoplasty agent if the lesion was localized on the skin with a red border (in patients with herpetic eruptions in the healing phase). In the vesicle phase, if the lesion was localized on the oral mucosa, Zovirax ointment, Solcoseryl ointment and Asepta dental adhesive paste were used; Pregnant patients were given professional oral hygiene during the first visit and told about the need for thorough cleaning, although bleeding may occur. Patients with herpetic lesions and chronic trauma were additionally prescribed general treatment. Patients with chronic trauma received vitamin therapy for 4-5 weeks: vitamins A, E, C in the form of Aevit and Askorutin tablets, 1 tablet 3 times a day.

Patients with chronic recurrent herpes infection are given general treatment according to the following scheme:

Valtrex, 1 tablet 2 times a day for the first 5 days of illness, then a course of 1 tablet (500 mg) for 90 days;

Cycloferon, 1 ampoule intramuscularly daily, 10 injections in total [3, 4];

Ingaron 100,000 IU intramuscularly with cycloferon for the first 5 days [9];

Berocca vitamins, 1 effervescent tablet per day for 6 weeks.

Research results

Good drug tolerance was noted in 200 (100%) patients, no side effects were observed; Clinical improvement occurred on average 2-3 days after the start of treatment, final healing occurred on average 7-9 days, depending on the type of lesion. The degree of clinical improvement in patients depending on the type of lesion is shown in Table 2. It is worth noting the difference in healing times depending on the type and location of the lesion.

Discussion: Epithelization occurred in the shortest time in patients with acute trauma in the absence of general somatic pathology. Epithelization after removal of the traumatic factor in patients with chronic trauma was slower, since the lesion was localized in the deep layers of the mucosa. In patients with damage to the marginal periodontium due to pregnancy, the restoration of the gingival margin took longer. During pregnancy, with severe toxicosis, frequent nausea and vomiting, the clinical condition worsens in the presence of marginal periodontal inflammation, which significantly slows down the recovery time. In patients with herpetic lesions of various localization, epithelialization of the foci occurred very slowly, since the immunity of such patients is usually unstable [10, 11]; long-term general therapy is required. Often, such patients have general somatic diseases. All these factors contribute to the fact that healing proceeds at a slow pace.

Conclusion: Based on the clinical study, the following conclusion was made: The use of Miramistin as part of a combination therapy for various pathologies of the oral mucosa and red border of the lips is effective and improves treatment results. Miramistin can be recommended for wider use in dental practice as an effective tool in the complex treatment of diseases of the oral cavity and red border of the lips.

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