References

1. Adriaens PA, Edwards CA, de Boever JA, Loesche WJ. Ultrastructural observations on bacterial invasion in cementum and radicular dentin of periodontally diseased human teeth. J Periodontol. 1988; 59(8): 493–503. doi: 10.1902/jop.1988.59.8.493.
2. Arzate H, Zeichner-David M, Mercado-Celis G. Cementum proteins: role in cementogenesis, biomineralization, periodontium formation and regeneration. Periodontol 2000. 2015; 67(1): 211–233. doi: 10.1111/prd.12062.
3. Bozbay E, Dominici F, Gokbuget AY. Preservation of root cementum: a comparative evaluation of power-driven versus hand instruments. Int J Dent Hyg. 2018; 16: 202–209. doi: 10.1111/idh.12249.
4. Foster BL. On the discovery of cementum. J Periodontal Res. 2017; 52(4): 666–685. doi: 10.1111/jre.12444.
5. Larsen T, Fiehn NE. Dental biofilm infections – an update. *APMIS.* 2017; 125(4): 376–384. doi: 10.1111/apm.12688.
6. Maritato M, Orazi L, Laurito D, Formisano G, Serra E, Lollobrigida M, Molinari A, De Biase A. Root surface alterations following manual and mechanical scaling: a comparative study. Int J Dent Hyg. 2018;16(4): 553–558. doi: 10.1111/idh.12349.
7. Menicanin D, Hynes K, Han J, Gronthos S, Bartold PM. Cementum and periodontal ligament regeneration. Adv Exp Med Biol. 2015; 881: 207–236. doi: 10.1007/978-3-319-22345-2_12.
8. Nuñez J, Vignoletti F, Caffesse RG, Sanz M. Cellular therapy in periodontal regeneration. Periodontol 2000. 2019; 79(1): 107–116. doi: 10.1111/prd.12250.
9. Stauffacher S, Lussi A, Nietzsche S, Neuhaus KW, Eick S. Bacterial invasion into radicular dentine – an in vitro study. Clin Oral Invest. 2016; 21(5): 1743–1752. doi: 10.1007/s00784-016-1960-7.
10. Yamamoto T, Hasegawa T, Yamamoto T, Hongo H, Amizuka N. Histology of human cementum: Its structure, function, and development. Jpn Dent Sci Rev. 2016; 52(3): 63–74. doi: 10.1016/j.jdsr.2016.04.002.

Стаття надійшла 1.11.2020 р.

DOI 10.26724/2079-8334-2021-4-78-90-95
UDC 616.31-002-082

A.V. Marchenko
Poltava State Medical University

PRIMARY CHEILITIS: PATHOGENETIC APPROACHES TO TREATMENT

e-mail: allamarchen@ukr.net

Primary cheilitis is widespread among all lip diseases. The article presents known methods of treatment and maintenance therapy of cheilitis and offers its own methods of treatment and maintenance therapy of meteorological and actinic cheilitis in patients. Pathogenetic therapy has the main task of achieving long-term control over the symptoms of meteorological and actinic cheilitis, aimed at preventing exacerbations of the disease during the year. All patients in the observation group received comprehensive therapy and were recommended to undergo maintenance therapy 3, 6 and 9 months after the main course of cheilitis treatment. Treatment was considered effective in achieving positive results in the subjective and objective picture of the disease. The data obtained indicate that the drug tiotriazoline should be used in the medical treatment of patients with meteorological and actinic cheilitis. The necessity not only of local treatment, but also of its systemic application in complex therapy is proved. For the general therapy of actinic cheilitis for the purpose of hyposensitizing effect it is expedient to appoint antihistamines of the third generation.

Key words: primary cheilitis, meteorological cheilitis, actinic cheilitis, treatment, maintenance therapy.

А.В. Марченко

ПЕРВИННІ ХЕЙЛІТИ: ПАТОГЕНЕТИЧНІ ПІДХОДИ ДО ЛІКУВАННЯ

Первинні хейліти широко розповсюджені серед усіх захворювань губ. В статті надані відомі способи лікування та підтримувальної терапії хейлітів та запропонувано власні методи лікування та підтримувальної терапії метеорологічного та актинічного хейлітів у пацієнтів. Патогенетична терапія має основним завданням досягнення довгострокового контролю над симптомами метеорологічного та актинічного хейлітів, спрямована на запобігання загострень хвороби протягом року. Усім пацієнтам групи спостереження була проведена комплексна терапія та рекомендовано через 3, 6 та 9 місяців після проведення основного курсу лікування хейліту пройти підтримувальну терапію. Лікування вважали ефективним при досягненні позитивних результатів у суб'єктивній та об'єктивній картині захворювання. Отримані дані свідчать, що препарат тіотріазолін доцільно використовувати при медикаментозному лікуванні пацієнтів з метеорологічним та актинічним хейлітами. Доведена необхідність не лише місцевого лікування, але й системного його застосування у комплексній терапії. Для загальної терапії актинічного хейліту з метою гіпосенсибілізуючого ефекту доцільно призначати антигістамінні засоби третього покоління.

Ключові слова: первинні хейліти, метеорологічний хейліт, актинічний хейліт, лікування, підтримувальна терапія.

The work is a fragment of the research project "Development of pathogenetic prevention of pathological changes in the oral cavity of persons with internal diseases", state registration No. 0121U108263).

The high prevalence of primary cheilitis among all lip diseases, which according to many studies reaches 40–55 %, determines the relevance of this problem [1, 2, 3]. Primary (independent) cheilitis, according to the classifications of Maksymenko PT (Poltava, 1998) and NMU (Kyiv, 1998) include: meteorological, actinic, glandular cheilitis, chronic cleft lip and lymphedema [1].

© A.V. Marchenko, 2021

Meteorological cheilitis occurs due to low or high humidity and temperature, exposure to wind, dust, and insolation. The effect of local irritants is exacerbated by genetic disorders of lip architecture; the presence of patients in the history of dental diseases, bad habits (smoking, licking and biting the lips, etc.). These factors contribute to the violation of the physiological balance of the adaptive mechanisms of the epithelium of the red border of the lips and the formation of the preconditions for the development of meteorological cheilitis [1, 8]. Important systemic factors in the development of meteorological diseases of the lips are a lack of vitamins, transferred and concomitant diseases that lead to a violation of the mechanisms of nonspecific adaptation, to reduce the protective and adaptive responses of the body.

Actinic cheilitis is a chronic disease that is associated with increased sensitivity of the red border of the lips to insolation. The main cause of actinic cheilitis is the action of the ultraviolet spectrum of sunlight, resulting in the development of a delayed allergic reaction. Clinic of actinic cheilitis, dry form: red border of the lips is first covered with small scales, with a long course of the disease without proper treatment may develop cracks, erosions, keratinization with pronounced subjective discomfort and aesthetic defect. Men aged 20–60 are more likely to get sick [1, 4, 11].

According to the literature, meteorological and actinic cheilitis are optional precancers of lip diseases. About 1–2 % of cases in such patients are malignant pathological process on the red border of the lips [4, 5, 6], so a timely comprehensive pathogenetic approach to the treatment of patients with meteorological and actinic cheilitis is relevant.

Treatment of primary cheilitis in patients is not always effective. Due to the complex pathogenesis of meteorological and actinic hails, characterized by a long course with a high probability of recurrence of the disease, the appointment of symptomatic drugs does not guarantee long-term success in treatment. Therapy of such patients should be comprehensive, individual, with repeated courses of maintenance therapy.

Research VM Kuligina and co-authors [4, 5], it is proved that under the influence of adverse factors of atmospheric influences on the red border of human lips there are changes in the hemocirculatory system. This contributes to the formation of pathological conditions: local prolonged angiospasm, increased vascular tone, reduced elasticity. The sharp restriction of blood circulation and further development of stagnant phenomena in the tissues of the lips contributes to the intensification of the pathological process [7, 9]. This necessitates not only local treatment, but also a systematic approach to the treatment of patients with meteorological cheilitis.

It is established that the maintenance of homeostasis of the internal environment is carried out by the antioxidant system, as one of the regulatory systems of the human body. The role of free radicals in the pathogenesis of diseases of periodontal tissues, oral mucosa, lips has been proved, which justifies the use of antioxidants in the differentiated treatment of these diseases. In inflammatory processes, the level of antioxidant protection is reduced, which requires additional introduction of antioxidant drugs in local and general therapy of patients [6].

Thiotriazoline is a domestic drug with polytropic action, which has antioxidant, membrane stabilizing and reparative properties. The drug stimulates tissue regeneration and epithelialization processes, reduces the intensity of inflammation. Ointment tiotriazolin 2 %, indicated for use in dentistry for ulcerative lesions of the oral mucosa and periodontal tissues. AEvit is a combined vitamin preparation that has an active antioxidant effect, affects the cell nuclei of target organs and initiates the synthesis of enzyme proteins and structural elements of tissues [6].

Currently, the search for new methods of treatment of primary cheilitis with the use of drugs that have general and local anti-inflammatory, antioxidant effect, stimulate tissue regeneration and epithelialization processes, eliminate structural and metabolic changes in the oral mucosa. This determines the need for the introduction of pathogenetic methods of treatment and maintenance therapy of meteorological and actinic cheilitis and allows, as an alternative, to consider the use of domestic drugs with antioxidant action.

The purpose of the work was to explore the known methods of treatment of primary cheilitis, offer their own methods of pathogenetic treatment of cheilitis, achieve long-term control of symptoms and prevent recurrence of the disease during the year.

Materials and methods. Our study was based on the results of a survey of 18 patients with meteorological and actinic cheilitis (8 women and 10 men), aged 18–25 years, with a disease duration of 3 to 5 years. For the clinical study, patients were divided into two clinical groups.

The first group consisted of 12 patients (8 women and 4 men) with a diagnosis of “meteorological cheilitis, chronic course”, who used the method of pathogenetic treatment of meteorological cheilitis developed and tested by the authors [10].

Group II – 6 patients (all men), aged 18–25 years, with a diagnosis of "actinic cheilitis, dry form, chronic course", who used the method of pathogenetic treatment of actinic cheilitis developed and tested by the authors [12]. As a comparison group used data obtained from previous studies [13]. All patients signed an informed voluntary consent to perform dental procedures.

Clinical examination of patients was performed according to a single algorithm aimed at determining the factors that contributed to the development of the disease. The study of the dental status of patients with primary cheilitis included: general and dental examination (survey, examination, palpation of the lips), determination of oral hygiene according to the Green-Vermillion index (1964), the condition of periodontal tissues by Schiller-Pisarev test [5]. The diagnosis was established according to the classification of cheilitis according to PT Maksimenko (1998) [1, 5].

Patients of group I used our proposed method of treatment (Patent of Ukraine for utility model No. 145235, publ. 25.11.2020) and maintenance therapy (Copyright, 2021) of meteorological cheilitis, which was carried out according to the protocols of dental care, including the use of drugs thiotriazoline, AEvit (manufacturer: PJSC "Research and Production Center "Borschagovsky Chemical-Pharmaceutical Plant", Ukraine). Treatment of meteorological cheilitis was carried out as follows: patients underwent professional oral hygiene, applications to the mucous membrane and red border of the lips ointment tiotriazolin 2 %, daily for 14–21 days. For general therapy, orally prescribed thiotriazoline 1 tablet of 100 mg per day, daily for 30 days; AEvit 1 capsule per day, daily for 30 days [10].

Patients of group II received treatment methods (Patent of Ukraine for utility model №143148, publ. 10.07.2020) and maintenance therapy of actinic cheilitis, including drugs thiotriazoline (manufacturer: PJSC "Research and Production Center "Borschagovsky Chemical-Pharmaceutical Plant", Ukraine) and Erius (manufacturer: Schering-Plow Labo, Belgium). Treatment of actinic cheilitis, dry form, in patients was carried out as follows: after professional oral hygiene, for local treatment used applications to the affected areas ointment tiotriazolin 2 %, daily for 7–14 days. For general therapy for the purpose of hyposensitizing effect , the drug Erius was prescribed 1 tablet of 5 mg per day, daily for 10 days [12].

Patients of both groups underwent comprehensive treatment and maintenance therapy courses 3, 6 and 9 months after the appointment of the main course in terms of their dispensary support. The results of treatment of patients of I and II clinical groups were analyzed according to the criteria of treatment efficacy.

Results of the study and their discussion. Patients of group I, who were under our supervision and treatment, indicated dryness or a feeling of lips tightness as the main complaints, an aesthetic defect. They tried to reduce dryness by frequent wetting of the lips with saliva, which led to even greater dryness and peeling. The study of the anamnesis of the disease showed that 8 patients (67 %) believed that the cause was the effect on the red border of the lips of the wind, dust. The development of the disease 2 women (16.5 %) were associated with the action of low air temperature; other patients (2 persons, 16.5 %) – could not explain the occurrence of cheilitis for any specific reason. Diseases of the lips were chronic, with periods of exacerbation in autumn and winter, bothered for 3 to 5 years. After the onset of the disease, 3 patients (25 %) sought medical help from a dentist, however, the results of their previous treatment were not effective enough; 5 people (41.5%) – treated themselves, 4 men (33.5 %) – did not seek dental care.

When studying the dental status of 5 patients (41.5 %), anomalies of occlusion and location of individual teeth in the frontal area of the upper and lower jaws were found. At objective inspection at all patients pathological changes were revealed: lips are infiltrated, dry, rough; red border of the upper and lower lip stagnantly hyperemic, covered with cracks, dry scales; on palpation of the lips there are unpleasant sensations. Visually defined signs of inflammation of the lip tissues were observed on the upper and lower lip in 9 people, (75 %) only on the lower lip – in 3 (25 %). When examining the condition of the teeth, the presence of carious process was noted in all examined persons, 2 patients (16.5 %) had teeth with complicated caries. The level of oral hygiene according to the Green-Vermillion index averaged 1.1±0.12 points per group. Examination of periodontal tissue revealed no pathological changes, Schiller-Pisarev test in all 12 patients (100 %) was negative.

After the prescribed complex therapy of meteorological cheilitis and rehabilitation of the oral cavity, the condition of lip tissues in patients returned to normal: pale pink mucous membrane, red border and normal skin, no pathological elements of the lesion, palpation – soft, painless lips. All patients were registered at the dispensary and received practical recommendations 3, 6 and 9 months after the application of the method of treatment of meteorological cheilitis to undergo courses of maintenance therapy. The first course of topical therapy lasted an average of 19±2.0 days before the disappearance of clinical manifestations of inflammation of the lips; general therapy – 30 days. The duration of maintenance therapy was set individually for each patient depending on the clinical manifestations and course of the disease.

Patients of group II, who were under our clinical observation, complained of unpleasant sensations (heartburn, itching), aesthetic defect of the lips. From the history of the disease, all patients (6 people, 100 %) noted that the pathological process on the lips is chronic, exacerbated in spring and summer after prolonged exposure to the sun, disturbed for the past three to five years. Analysis of the survey data showed that the vast majority (4 people, 67 %) did not seek dental care; two men (33 %) were treated on their own using hygienic lipsticks or creams. During the survey, from the anamnesis of life, it was found that patients of this group have a permanent place of residence – Odessa, are currently studying at the PSMU. At objective inspection at all patients at inspection it was revealed: lips are dry, rough, easily injured; red border of the lower lip of bright red color, covered with dry, small silvery-white scales; 4 men (67 %) with conditions of long-term actinic cheilitis had superficial cracks in the red border of the lips; on palpation – the tissues of the lips are slightly infiltrated and painful. When examining the condition of the teeth, the presence of carious process was noted in 5 (83.5 %) of the examined persons, teeth with complicated caries were not detected. The level of oral hygiene according to the Green-Vermillion index on average in the group was 0.8±0.12 points. When examining the condition of periodontal tissues there were no inflammatory processes, Schiller-Pisarev test in all 6 (100 %) patients was negative.

After complex pathogenetic therapy of actinic cheilitis, dry form, and rehabilitation of the oral cavity, the condition of the skin of the lips, red border and mucous membranes returned to normal. The course of local therapy of cheilitis lasted an average of 11±2.0 days before the disappearance of clinical manifestations of inflammation of the lips; general therapy – 10 days. Dynamic observation by a dentist, courses of maintenance therapy in 3, 6 and 9 months, avoiding the effects of insolation were prescribed.

The results of treatment and maintenance therapy of patients with meteorological and actinic cheilitis were analyzed according to the criteria of effectiveness: remission, improvement, unchanged, deterioration of lip tissues (see table).

□□bl□

The results of treatment of patients

Criteria for treatment effectiveness	Meteorological cheilitis n=12	Actinic cheilitis n=6	Total n=18
Remission	8 (67 %)	5 (84 %)	13 (72 %)
Improvements	3 (25 %)	1 (16 %)	4 (22 %)
Unchanged	1 (8 %)	-	1 (6 %)
Deterioration	-	-	-
Total	12 (100 %)	6 (100 %)	18 (100 %)

It was found that all 18 people (100 %) underwent a full course of treatment (basic and maintenance therapy), of which 13 patients (72 %) had no relapses during the year, clinical manifestations met the criterion of remission. Improvement of lip tissues was noted in 4 patients (22 %), who also had no recurrences; in one man (6 %), who could not get rid of the bad habit, the condition of the tissues of the lips did not change clinically. Complications of meteorological and actinic cheilitis, which would meet the criterion of deterioration, we did not observe in any of the patients (see fig. 1, 2).

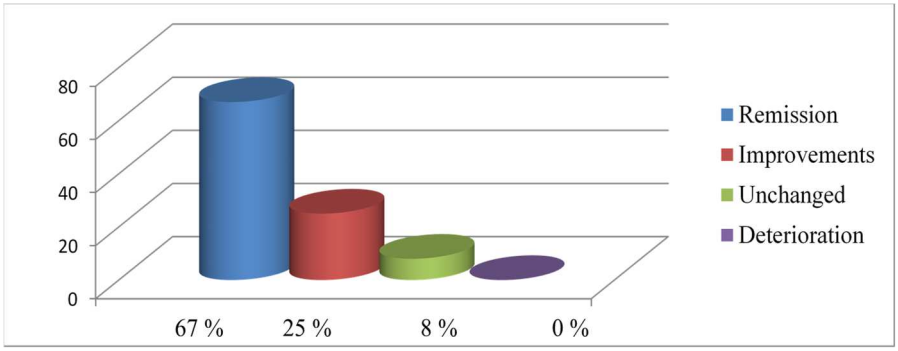

Fig.1. The results of treatment of patients with meteorological cheilitis.

Thus, an individualized and differentiated approach to maintenance therapy of patients with an interval between courses of three months can increase the effectiveness of treatment of meteorological and actinic cheilitis by anamnestic and clinical indicators.

To achieve thispurpose, we have studied the known methods of treatment and maintenance therapy of patients with cheilitis, studied their positive properties and disadvantages in comparison with our patented methods. The method of treatment of cheilitis according to IG Romanenko (Patent of Ukraine for utility model No. 30826A, publ. 15.12.2000) includes treatment of the lips with a mixture of vaseline-based with the addition of drugs with antimicrobial, anti-inflammatory and immunomodulatory action. The disadvantage of this method of treatment is that it does not take into account the links in the pathogenesis of actinic cheilitis, which occurs in a sensitized body against the background of enhanced exposure to

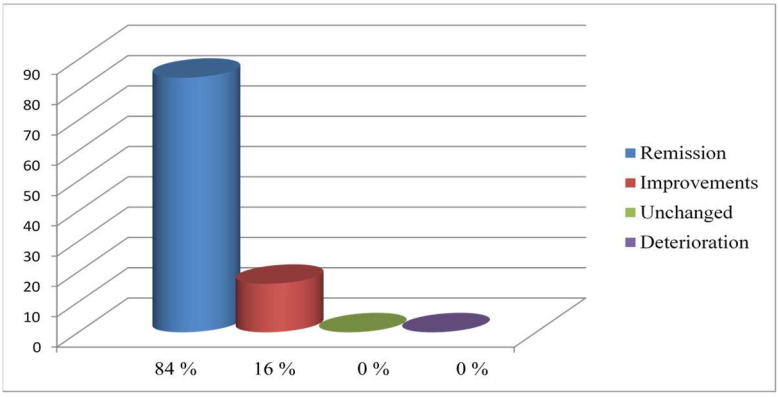

Fig.2. The results of treatment of patients with actinic cheilitis

ultraviolet radiation. In contrast, our proposed method includes topical anti-inflammatory therapy and antihistamine systemic action. The known method of NO Savychuk and co-authors (Patent of Ukraine for utility model №6128U, publ.15.04.2005) has disadvantages due to the fact that the proposed antihistamine in the treatment of cheilitis has limited indications for use – it is seasonal allergic rhinitis and chronic idiopathic urticaria. Preparations of approved topical have countervailing effects: antibiotic, analgesic, hidratuyuchu, keratolytic, antipruritic, antibacterial and antifungal, which is largely symptomatic treatment. All three ointments, which are proposed by the authors for topical therapy, have antibacterial action, which can reduce the local immunity of the lip tissues, there is, in our opinion, polypragmatism. The therapeutic effect of the immunostimulating drug, tablets of which are used for absorption in the oral cavity, is aimed directly at the pathology of the mucous membrane of the mouth and pharynx and does not significantly affect the red border of the lips and skin around it. With our proposed therapy of cheilitis is aimed primarily at the links of pathogenesis, thereby controlling the symptoms of the disease, prevents the development of complications, and helps to restore the affected areas of lip tissue. These provisions correlate with the work of other scientists [8, 13, 14, 15].

Thus, pathogenetic approaches to the treatment of patients with meteorological and actinic, dry forms, cheilitis, developed and proposed by us, increase the effectiveness of therapy, public, easy to use, prevent the development of complications of cheilitis in patients. Clinically sound methods of pathogenetic therapy allow to achieve long-term control over the symptoms of meteorological and actinic cheilitis and prevent exacerbation of the disease during the year.

Conclusion

The data obtained indicate that the drug thiotriazoline should be used in the medical treatment of patients with meteorological and actinic, dry, cheilitis. The necessity not only of local treatment, but also of its systemic application in complex therapy is proved. For the general therapy of actinic cheilitis for the purpose of hyposensitizing effect it is expedient to appoint antihistamines of the third generation.

An individualized and differentiated approach to maintenance therapy of patients with meteorological and actinic cheilitis prevents exacerbation of the disease during the year in 94 % of cases.

The proposed methods are effective, modern, can be recommended for use in therapeutic dentistry.

Prospects for further reseach. It is planned to further search for effective ways of comprehensive treatment of patients with primary cheilitis, which is confirmed by clinical observations and additional research methods.

References

1. Averyanov SV, Romeyko IS, Pupikina YeV, Zubareva II. Rasprostranennost kheylitov i faktorov riska vozniknoveniya sredi studencheskoy molodezhi g. Ufy. Stomatologiya mladencheskogo vozrasta i profilaktika. 2015; 4 (HIV): 66–68. [in Russian]
2. Bobyrov VM, Petrova TA, Ostrovska HYu, Ryabushko MM. Farmakoterapiya v stomatolohiyi: navch. posibnyk. Vinnytsya: Nova Knyha.
3. Koval NI, Nesin AF, Koval YeA. Zabolevaniya gub. Klinicheskaya kartina. Diagnostika. Differentsialnaya diagnostika. Lecheniye. Profilaktika: ucheb. posobiye. K.:Meditsina. 2013; 344. [in Russian]
4. Kulyhina VM, Stremchuk MV. Osoblyvosti anatomichnoyi budovy kuta rota u zdorovykh ditey ta khvorykh na atopichnyy kheylit u rizni vikovi periody. Zhurnal vushnykh nosovykh i horlovykh khvorob. 2014; 4: 56–62. [in Ukrainian]
5. Kulyhina VM, Stremchuk MV. Funktsionalni porushennya, shkidlyvi zvychky ta zminy arkhitektoniky hub pry atopichnomu kheyliti v ditey riznoho viku. Sovremennaya stomatolohyya. 2014; 4: 58–63. [in Ukrainian]
6. Marchenko AV, Rybalov OV, Devyatkina TO, Lytovchenko IYu, Chechotina SYu, Nikolishyna EV, ta in. Ynformatsiynyy lyst pro novovvedennya v sferi okhorony zdorovya. Sposib likuvannya aktynichnoho kheylitu. 2021; №24. [in Ukrainian]
7. Nikolishyn AK, Zhdan VM. Terapevtychna stomatolohiya: pidruchnyk dlya studentiv stomatolohichnoho fakultetu VNZ IV rivnya akredytatsiyi. Za redaktsiyeyu Anatoliya Nikolishyna. Vydannya 2-he. Vinnytsya: Nova Knyha. 2012; 393–396. [in Ukrainian]
8. Rabinovich OF, Rabinovich IM, Umarova KV, Denisova MA, Rasprostranennost i struktura zabolevaniy gub sredi patsiyentov otdeleniya zabolevaniy slizistoy obolochki rta. Klinicheskaya stomatologiya. 2015; 3: 36–38 [in Russian]
9. Rybalov OV, Devyatkina TO, Marchenko AV, Lytovchenko IYu, Chechotina SYu, Ilenko NM. Pat. №145235 Ukrayina. MPK A61S. Sposib likuvannya meteorolohichnoho kheylitu. Vlasnyk Ukrayinska medychna stomatolohichna akademiya. №u202004156; zayavl. 08.07.2020; opubl. 25.11.2020; Byul. No. 22/2020. [in Ukrainian]
10. Rybalov OV, Petrushanko TO, Lytovchenko IYu. Huby ta yikh zakhvoryuvannya: navch. posibnyk. Poltava. 2018; 135 [in Ukrainian]
11. Skripnikov PN, Skripnikova TP, Dudchenko MA, Belous SV. Kompleksnyy podkhod k diagnostike i lecheniyu bolnykh s zabolevaniyami slizistoy obolochki polosti rta. Dental science and practice. 2015; 5: 17–23. [in Russian]

12. Stremchuk MV. Poshuk efektyvnykh terapevtychnykh zakhodiv zahalnoyi i mistsevoyi diyi pry likuvanni ditey, khvorykh na atopichnyy kheylit. Profilaktyka ta dytyacha stomatolohiya. 2014; 2 (11): 25–28. [in Ukrainian]
13. Goldman GD. Treatment of actinic cheilitis. Dermatologic Surgery. 2015; 41 (10): 1193-1194.
14. Martins MR, Mousinho OK, da Silva Rocha, DP. Nóbrega Lira. Histopathological Evaluation of Actinic Cheilitis. Oral Surgery, Oral Medicine, Oral Pathology and Oral Radiology. 2015; 120 (2): 91–92.
15. Samimi M. Cheilites: orientation diagnostigue et treatment. Presse Medicale. 2016; 45 (2): 240–250.

Стаття надійшла 28.11.2020 р.

DOI 10.26724/2079-8334-2021-4-78-95-99
UDC 616.311-06:619.98:578.828:616-085.281.8

K.V. Marchenko, T.I. Koval, O.H. Marchenko, V.M. Dvornyk
Poltava State Medical University, Poltava

OPPORTUNISTIC INFECTIONS WITH ORAL INJURIES IN HIV-INFECTED PATIENTS BEFORE PRESCRIPTION AND AGAINST THE BACKGROUND OF ANTIRETROVIRAL THERAPY

e-mail: marchenkokv@gmail.com

The study included 181 HIV-infected patients (127 men and 54 women) aged 21 to 55 years (mean 34.6±7.01 years). Follow-up of HIV-infected patients from the time of registration to ART lasted an average of 1.64±0.17 years. The study showed that at the time of ART initiation, the majority of HIV-infected patients – 148 (81.8 %) – were dominated by the 3rd and 4th clinical stages with the registration of opportunistic infections inherent in these stages, respectively. In particular, oropharyngeal candidiasis was observed in half of the examined patients – 76 (42.0 %), and oral hairy leukoplakia in – 49 (27.0 %) patients, and in some of the examined patients, the level of CD4 lymphocytes exceeded 350 cells/μL. Despite antiretroviral therapy's high overall virological and immunological efficacy in 11 (6.0 %) patients, opportunistic infections with oral lesions were recorded at CD4 lymphocyte counts ≥350 cells/μL.

Key words: HIV infection, immunosuppression, oropharyngeal candidiasis, oral hairy leukoplakia, herpes simplex virus.

К.В. Марченко, Т.І. Коваль, О.Г. Марченко, В.М. Дворник

ОПОРТУНІСТИЧНІ ІНФЕКЦІЇ З УРАЖЕННЯМ РОТОВОЇ ПОРОЖНИНИ У ВІЛ-ІНФІКОВАНИХ ПАЦІЄНТІВ ДО ПРИЗНАЧЕННЯ ТА НА ФОНІ АНТИРЕТРОВІРУСНОЇ ТЕРАПІЇ

Дослідження включало 181 ВІЛ-інфікованого пацієнта (чоловіків – 127, жінок – 54) віком від 21 до 55 років (середній – 34,6±7,01 роки). Спостереження від моменту встановлення на облік до призначення антиретровірусної терапії, що тривало в середньому 1,64±0,17 років показало, у більшості ВІЛ-інфікованих пацієнтів – 148 (81,8 %) – переважали 3-тя та 4-та клінічні стадії з глибокою імуносупресією та реєстрацією, відповідно, опортуністичних інфекцій з ураженням ротової порожнини, притаманних цим стадіям, зокрема орофарингеального кандидозу у половини обстежених – 76 (42,0 %), та волосистої лейкоплакії язика більше, ніж у чверті – 49 (27,0 %) пацієнтів, причому у частини обстежених – при рівні CD4-лімфоцитів вище 350 кл/мкл. Попри високу загальну вірусологічну та імунологічну ефективність антиретровірусної терапії у 11 (6,0 %) пацієнтів опортуністичні інфекції з ураженням ротової порожнини реєструвались при показниках CD4-лімфоцитів ≥350 кл/мкл.

Ключові слова: ВІЛ-інфекція, імуносупресія, орофарингеальний кандидоз, волосиста лейкоплакія язика, герпесвірусні інфекції.

The article is a fragment of the research project "Optimization of treatment and diagnostic tactics in infectious diseases of viral, bacterial, parasitic aetiology and their mixed forms based on the study of their clinical and pathogenetic features", state registration No. 0119U102923.

Opportunistic infections (OIs) remain the leading cause of treatment and death in HIV patients. Latent OIs are exacerbated against the background of immunodeficiency caused by the human immunodeficiency virus (HIV). Their clinical course becomes life-threatening severity, propensity to disseminate the pathogen with the formation of ectopic foci, low sensitivity to specific therapy with a tendency to multiple relapses, weak specific immune response to the pathogen [14].

One of the main problems with the rapid disease progression and high mortality associated with HIV is late treatment, namely the late presentation of HIV infection [8, 15].

Thus, most HIV patients seek medical care for clinical indications when they are already in the late (3–4) stages of the disease (65.8–80.7 %) and have signs of multiple OIs. Therefore, the timely diagnosis of OIs depends on the success of treatment, duration and quality of life of patients [1].

Oral lesions in HIV infection are among the most common complaints and reasons for seeking medical care in the early stages of HIV-infected patients. Patients with varying degrees of immunosuppression must suffer from various oral cavity viral, bacterial, and fungal lesions. Moreover, one

© K.V. Marchenko, T.I. Koval, 2021