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Конфлікт інтересів: дослідження проводили за відсутності будь-яких комерційних або фінансових відносин, які могли б розглядатися як потенційний конфлікт інтересів.

Застосування противірусної терапії у пацієнтів із простою герпесвірусною інфекцією та системними захворюваннями сполучної тканини*

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Вступ. Враховуючи важливість простої герпесвірусної інфекції як одного з тригерів у розвитку системних захворювань сполучної тканини, вивчення і оцінка ефективності противірусного лікування є важливим питанням для цієї групи пацієнтів.

Метою роботи було дослідження клінічної ефективності противірусної терапії у пацієнтів із системними хворобами сполучної тканини та простою рецидивуючою герпесвірусною інфекцією під час, після лікування та у віддалений період, в залежності від отриманої терапії.

Матеріали і методи. У дослідженні брали участь 59 пацієнтів, які перебували на амбулаторно-му та стаціонарному лікуванні у Львівському обласному клінічному діагностичному центрі та Львівській обласній клінічній лікарні – клінічних базах кафедри клінічної імунології та алергології Львівського національного медичного університету імені Данила Галицького.

Результати. На основі отриманих даних була розрахована клінічна ефективність лікування Інозину пранобексу (Новірину) у пацієнтів із легким, середньо-тяжким та тяжким перебігом простої герпесвірусної інфекції та системними захворюваннями сполучної тканини. Отримані результати свідчать, що застосування Інозину пранобексу у пацієнтів із легким перебігом простої герпесвірусної інфекції сприяло зменшенню головного болю у 82.4%, нормалізації температури – у 75.0%, зменшенню втоми – у 72.2% випадків. У групі пацієнтів із середньо-тяжким та тяжким перебігом простої герпесвірусної інфекції, які окрім терапії Інозином Пранобексу отримували ще додатково Ацикловір, зменшенню головного болю спостерігалось у 73.9%, нормалізація температури – у 66.6%, зменшення втоми – у 65.5% випадків.

Висновки. Застосування противірусної терапії у пацієнтів із системними захворюваннями сполучної тканин та простою рецидивуючою герпесвірусною інфекцією виявляло позитивний вплив на загальний стан пацієнтів, що було представлено у зменшенні інтенсивності та частоти виникнення головного болю, вираженості загальної втоми та нормалізації температури тіла у всіх групах пацієнтів. Тому застосування противірусної терапії у даної групи пацієнтів може бути рекомендоване у складі комплексної терапії та застосоване в якості персоніфікованого підходу до кожного пацієнта, який передбачає індивідуалізацію лікування.

Ключові слова: проста герпесвірусна інфекція, системні захворювання сполучної тканини, клінічні прояви, противірусна та імунотропна терапія

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Peculiarities of immunological parameters in patients with recurrent herpes simplex virus infection**

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Introduction. Considering the importance of herpes simplex virus infection as one of the triggers in the development of systemic connective tissue diseases, studying and evaluating the effectiveness of antiviral treatment is an important issue in this group of patients.

Aim. The investigation of clinical efficacy of antiviral therapy in patients with systemic connective tissue disease and chronic recurrent herpes during and after treatment and in the long term, depending on the therapy received.

Materials and methods. The study involved 59 patients who were treated at Lviv Regional Clinical Diagnostic Center and Lviv Regional Clinical Hospital - clinical centres of the Department of Clinical Immunology and Allergology of Danylo Halytsky Lviv National Medical University.

Results. Based on the data obtained, the clinical efficacy of Inosine pranobex (Novirini) in groups of patients with mild, moderate and severe herpes simplex infection and systemic connective tissue disease was calculated. The results show that use of Inosine Pranobex in patients with a mild course HSV 1/2 infection contributed to headache relief in 82.4%, temperature normalization in 75.0%, and decreases fatigue in 72.2%. In the group of patients with moderate to severe herpes virus infection, who received Acyclovir in addition to Inosine Pranobex, headache was reduced in 73.9%, temperature normalization in 66.6%, fatigue reduction in 65.5% of cases.

Conclusion. The use of antiviral therapy in patients with systemic connective tissue disease and recurrent herpes simplex virus infection had a positive effect on patients' general condition, which was manifested by reduced intensity and frequency of headaches, the severity of fatigue and normalization of body temperature in all patients. Therefore, we can recommend antiviral therapy for this group of patients as part of the complex therapy involving an individual approach to each patient, which presupposes personalized treatment.

Keywords: herpes simplex infection, connective tissue disease, clinical manifestation, antiviral and immunotropic therapy

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Introduction. Herpes infection is one of the most common infections, which is referred to a group of diseases that determine the future of infectious pathology according to the WHO [1]. Herpes simplex virus belongs to alpha herpesvirus subfamily with the large genome [2]. This is a type of microorganisms that a person contacts in early childhood. Most people carry on the primary infection without symptoms, and these viruses remain in the latent condition during a person's entire life [3]. So, HSV-1 is well known for its ability to establish lifelong latent infection in neurons and trigger reactivation and lytic infection mainly in epithelial or mucosal cells with frequent long exacerbations and high resistance to therapy [4, 5, 6, 7]. However, clinical manifestations of the infection, recurrence, and progression of the disease are determined not only by the efficient functioning of specific antiviral immunity but also by general reactivity of a macroorganism [8]. The interaction between the virus and the human body is a crucial step in the development of herpes infection. When immune surveillance disorder develops, the latent herpetic infection becomes active with frequent relapses and prolonged manifestations, which is associated with the immune system dysfunction - impaired antiviral surveillance with the subsequent possible hyperactivation of some parts of the immune system and its dysregulation [9].

General clinical manifestations include skin and mucosal infection, orofacial herpes, genital herpes, herpetic whitlow, herpes encephalitis, neonatal herpes acquired at the time of childbirth (although rare but a serious condition), herpes keratitis (damages eyes), and Alzheimer's disease [10, 11, 12].

Materials and methods. The study was conducted in accordance with the permission of the Bioethics Committee of Danylo Halytsky Lviv National Medical University (LNMU), protocol № 5 of 16.05.16. The study included 59 patients with different rheumatoid diseases: 27 patients with rheumatoid arthritis, 15 patients with systemic lupus erythematosus and mixed connective tissue disease, 11 patients with ankylosing spondylitis, 6 patients with systemic scleroderma. Considering the recurrence rate, all patients were divided into three groups - mild, moderate, and



Рис.1. Доповідає Наталя Горбаль під час SMART LION 2019 (Львів, 2019)

severe (mild - 1-2 recurrence cases per year; moderate - 3-5 cases per year with the complications or atypical course, and severe - more than 6 cases of HSV 1/2 per year with complications or atypical course). Patients of subgroup 1 (with a mild course of infection) received a therapeutic dose of Inosine pranobex (Novirin) 100 mg/kg/day during 1-14 days, and subsequently a maintenance dose of 50 mg/kg/day - 15th to 90th day. Patients of subgroup 2 (with a moderate and severe course of infection) received 100 mg/kg/day of Inosine pranobex (Novirin) and 1600 mg/day of Acyclovir during 14 days, followed by a maintenance dose of Inosine pranobex 50 mg/kg/day during up to 3 months.

Results. Patients with a mild course of recurrent HSV1/2 infection complained of vesicular rashes on lips, nose, chin, and cheeks; periodic headache, fatigue and fever within 37.3-37.7 °C. Patients with moderate and severe course of recurrent HSV1/2 infection complained not only of vesicular rash on the face but also on the skin of the perineum, buttocks, back, mucosa of the mouth, genital organs, which often have a generalized nature; complaints also included dizziness, intensive headache; fatigue, general

weakness, fever in the range of 37.5-37.9 °C or periodic fever above 38.5 °C; enlargement of lymph nodes, neuralgic pain, etc.

We analysed the dynamics of complaints from patients with recurrent HSV1/2-infection, such as headache, subfebrile temperature, increased fatigue after antiviral treatment and in the long term.

Out of patients with a mild course of recurrent HSV1/2 infection, before treatment headache (of low intensity) was observed in 13 (22.0%) patients; then it decreased gradually and disturbed four (6.8 %) patients by the end of treatment; in the long term - only two (3.4%) people complained of headache. In the group of patients with a moderate and severe course of infection, before treatment moderate or intense headache was observed in 32 (54.2%) patients, after treatment - in 8 (13.5%), and in the long term - in 7 (11.86%) patients.

In the group of patients with a mild course of HSV1/2 infection, subfebrile temperature (37.1 to 38.5 °C) before treatment was observed in 18 (30.5%) patients, after treatment - in three (5.1%), and in the long term - in one (1.7%) patient. In the group of patients with a moderate and severe course of HSV 1/2 infection, subfebrile temperature was registered in 25 (42.4%) patients, after treatment - in 8 (13.5%), and in the long term - in five (8.5%) patients.

Intensive fatigue in patients with a mild course of recurrent HSV1/2 infection was observed in 23 (39%) patients, after treatment -

in 8 (13.5%), and in the long term - in 6 (10.2%) patients. In the group of patients with moderate and severe recurrent HSV1/2 infection, intense fatigue was observed in 30 (50.8%) patients, after treatment - in 14 (23.7%), and in the long term - in 12 (20.3%) patients.

In a group of patients with a mild course of recurrent HSV1/2 infection, lymphadenopathy was not observed before treatment. In the group of patients with a moderate and severe course of HSV1/2 infection, before treatment, an increase in submandibular lymph nodes (1.2-2.0 cm in diameter, mobile, slightly painful or painless) was observed in 7 (11.9%) patients. The size of lymph nodes normalized after treatment.

Summary: in the group of patients with a mild course of recurrent HSV1/2-infection, the treatment by Inosine Pranobex resulted in the relief in headache by 4 times, subfebrility by 5.7 and fatigue by 3.9 times respectively; in patients with moderate and severe infection, after the treatment with Inosine Pranobex + Acyclovir, headache was relieved by 3.8 times, subfebrility by 3 and fatigue by 2.9 times respectively.

Conclusion. Based on the data obtained, we have calculated the clinical efficacy of Inosine Pranobex. The use of Novirin in patients with a mild course HSV 1/2 infection contributed to headache relief in 82.4%, temperature normalization in 75.0%, and decreases fatigue in 72.2%, in patients with moderate and severe infection - in 73.9%, 66.6%, 65.5% respectively

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