

**МІНІСТЕРСТВО ОХОРОНИ ЗДОРОВ'Я УКРАЇНИ  
БУКОВИНСЬКИЙ ДЕРЖАВНИЙ МЕДИЧНИЙ УНІВЕРСИТЕТ»**



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**MODERN ASPECTS OF COMPLEX TREATMENT OF DEMODICOSIS  
BLEPHARONCONJUNCTIVITIS**

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**Introduction.** Blepharitis caused by the Demodex mite is the most common of all inflammatory diseases of the eyelids. Parasite carriage is observed in up to 89% of patients, but the majority of carriers don't have pathological signs. In conditions of reduced immunity, under the influence of adverse external conditions and internal factors, diseases of the nervous, vascular, endocrine and digestive systems, metabolic disorders, demodicosis occur. Asymptomatic carrier of the parasite is possible. The tick parasitizes in the ducts of the sebaceous, meibomian glands and hair follicles. Only drug therapy of demodicosis is ineffective, as only the most superficial ticks die.

**The aim.** We use a comprehensive approach to the treatment of demodicosis blepharoconjunctivitis by sequential application of Spregal or Stop demodex gel on the skin of the eyelids and subsequent darsonvalization of the eyelids. The drugs should be applied to the front edge of the eyelids using an ear stick, without getting on medicine on the mucous membrane of the eye. You can also use micellar foam for eyelids Naviblef TTO Intensive care.

**Material and methods.** The method of darsonvalization has the following therapeutic effects: acaricidal and bactericidal – due to the action of spark discharge and ozone generated in the near electrode space of the apparatus for darsonvalization; analgesic and antipruritic effects – by increasing the sensitivity threshold of pain and tactile exteroceptors; immunostimulating effect also due to the action of a spark discharge, which stimulates phagocytosis, and the release of biologically active substances that stimulate the humoral part of the immune system.

**Results.** Using this technique in the period of 2012-2022, we treated 58 patients using gel “Stop demodex” and 55 patients using Spregal. The course of darsonvalization with the specified means lasted 10 days with the subsequent break for two weeks and repeated treatment. This treatment regimen corresponds to the full life cycle of the mite (15 days), as all treatments act only on adults ticks. Itching, swelling and redness of the eyelids after the first course of treatment decreased in 96.5% of patients using Spregal. If at primary eyelash microscopy in the microscope slide were revealed 8-15 ticks in the investigated area, then after the first course of treatment with Spregal their number decreased to 1-2 in the investigated area. After re-treatment, the percentage of negative microscopic eyelash tests approached 100%. Almost similar data were obtained when combining darsonvalization with topical use of gel “Stop demodex”.

Darsonvalization of the eyelids gives a good therapeutic effect. This method involves contacting specific agents with the maximum number of parasites, even deep ones. In our opinion, the spark charge, due to the action on smooth muscle cells of meibomian and sebaceous glands, stimulates the release of their secretion together with the demodex mite, which is exposed to specific drugs previously applied to the skin.

To prevent recurrence of exacerbations of the disease, we recommend daily regular therapeutic eyelid hygiene. For this purpose it is necessary to carry out self-massage of eyelids about 1-2 minutes after a warm compress. The compress is usually performed using cotton swabs, immersed in hot water, squeezed and applied to closed eyelids for 1-2 minutes. Thermal procedures help to improve local metabolic processes and drain the excretory ducts of the meibomian glands.

Self-massage is performed after applying an indifferent eye gel to the eyelash growth area, which helps to clean the surface of the eyelids from toxic agents, scales and crusts. We also recommend using Dermazol or Nizoral shampoo to treat the free lid margin and skin of the eyelids, especially in patients with demodicosis of the facial skin and seborrheic blepharitis or dermatitis.

**Conclusions.** Our used complex method of Treatment of demodicosis blepharitis by application of specific drugs on the skin of the eyelids and subsequent darsonvalization of the eyelids is an easy-to-use, affordable and effective way to treat demodicosis. Daily observance of therapeutic eyelid hygiene (self-massage with a cleansing gel after warm compresses) can significantly reduce the likelihood of exacerbation of demodicosis blepharoconjunctivitis.