

## Treatment features of neurotrophic corneal ulcerations

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**Introduction:** Neurotrophic damage of the anterior segment of the eye-ball often cause low vision and blindness and lead not only to worsen the quality of life, but also to disability of patients.

**Purpose:** To evaluate the efficiency and clinical results of treatment of patients with neurotrophic corneal lesions.

**Materials and methods:** The study included 29 patients (17 men, 12 women, mean age  $49.1 \pm 7.3$  years, the observation period from 3 month to 5 years) suffering from neurotrophic damage of the cornea. In 13 (44.9%) cases, neurotrophic corneal lesions developed against the background of paralytic lagophthalmos, in 11 (37.9%)—against the background of recurrent herpes infection, in 5 (13.8%)—after a chemical burn, in 1 (3.4%) case—after radiation therapy for basalioma of the lower eyelid. Keratopathy was detected in 4 (13.8%) patients, keratoconjunctivitis—in 3 (10.3%), keratitis—in 14 (48.3%), corneal ulcer—in 8 (27.6%) patients, of which 3 (10.3%) corneal ulcers with perforation.

**Results:** All the patients underwent complex treatment, including medical therapy and one or more surgical stages. Surgical treatment was performed in 18 (62.1%) cases: 10 patients with paralytic lagophthalmos, 6 after a herpetic infection, 2 after a chemical burn. Surgical interventions were as follows: amniotic membrane transplantation—9 eyes, autoconjunctival flap—5, penetrating or lamellar keratoplasty—4 eyes. As a final step of these operations, blepharography was performed.

It should be noted that although the corneal condition improved in all cases, it was not stable throughout the observation period—in 8 out of 18 cases, repeated tectonic surgical interventions were required (5 patients with lagophthalmos and 2 with herpes infection).

**Conclusion:** Neurotrophic lesions of the cornea are a severe pathology that can lead to a significant decrease in visual function and loss of the eyeball. In the presence of pronounced pathological changes in the cornea (keratitis, ulcer, perforation), the optimal combination of medical therapy and surgical treatment makes it possible to achieve positive dynamics during the pathological process and minimize the degree of the corneal damage. To achieve a satisfactory treatment result, an individual approach to each patient is necessary, taking into account the cause of the development of neurotrophic lesions of the cornea and the characteristics of the course of the disease.

# Die Ophthalmologie

Zeitschrift der Deutschen Ophthalmologischen Gesellschaft

**Abstracts  
zur DOG 2024  
Estrel Congress  
Center, Berlin  
10.10.–13.10.2024**



# DOG 2024