

### CONSERVATIVE TREATMENT OF FUNGAL CANALICULITIS /according to Dj. Anguelov/

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**Purpose.** Our aim was to estimate the effect of the treatment of fungal canalculitis, according to Dj. Anguelov, 1982.

**Methods.** The method was applied on three female patients ageing 46, 57 and 76 years, with duration of the disease 1.5, 2 and 3 years, respectively. The treatment consisted of the following procedures: Local topical and intracanalicular anaesthesia. Dilatation of the lachrymal puncta with Bowman lachrymal probes up to size 6. Manual expression of the fungal solid masses from the canalcul with the aid of firm support and fingertip moving to the puncta. This was repeated until the wall of the canalcul become softer. Than a bathe of the canalcul is performed with anti-fungal solution, prepared in advance in a syringe filled with isotonic solution and some drops of tincture of iodine. Then, to create better passability to the lachrymal sac, a dilatation with Bowman probes up to size 4 and irrigation, according to Anel with the same solution was applied. Usually, a single procedure is needed for the successful treatment, and rarely it have to be repeated after 2-3 to 7 days. All the time the eye is treated with antiseptic and corticosteroid collyrs.

**Results.** On the next day the patient's status improved significantly - the pain disappeared, the oedema and the irritation diminished, and after 3 - 7 days the symptoms disappeared completely, including the purulent secretion and lachrymation. The lachrymal ways are free passable, according to Anel, and the function of the canalcul was entirely restored. The patients were followed-up one year after the treatment. No recurrence of the disease was observed.

**Conclusion.** This method has significant advantages in comparison with the surgical methods, because it ensures preservation of the anatomical integrity and avoids post-operative deformations. It is highly effective and could be easily applied in every ophthalmic office.

### OCULAR ALTERATIONS IN LEPROSY IN A REGION OF SÃO PAULO STATE - BRAZIL

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**Purpose** - Ocular involvement in leprosy depend on several factors: ethnic group, geographic region, climate, occupation, sex, type of leprosy, duration and treatment (Ffytche, 1991). This study aims at determining the prevalence of oculopalpebral injuries in patients with Hansen's disease in the region we live in.

**Methods** - We examined the patients with Hansen's disease, who live in the region of Botucatu (São Paulo state - Brazil), from 1991 until 1994, on data of identification, type of leprosy and complete ophthalmological exam.

**Results** - We examined 104 patients - 68.3% males, most of them ranging from 50 to 60 years old, 63.5% with lepromatous leprosy. 9.13% of the eyes we examined were blind. The most common alterations were the palpebral (madarosis, trichiasis, blefaritis) and the corneal types (thickened nerves, opacities, pigments on endothelium, keratitis).

**Conclusions** - The low levels of ocular complications and blindness in leprosy in the region of Botucatu - SP - Brazil is probably due to the early detection of the alterations and their treatment.

### EXPERIMENTAL STUDY OF THE LOW-INTENSITY He-Ne LASER IRRADIATION ON HERPES SIMPLEX VIRUS AND KERATOCONJUNCTIVITIS HERPETICA

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**Purpose** The purpose of our study is to evaluate the effect of the low-intensity He-Ne laser irradiation on herpes simplex virus and keratoconjunctivitis herpetic.

**Methods** The study includes the influence of the low-intensity He-Ne laser irradiation on: 1/ cell culture of human embryonic fibroblasts, contaminated with virus herpes simplex; 2/ on 108 rabbits (216 eyes) an experimental herpetic keratoconjunctivitis was stimulated by inoculation of virus herpes simplex without scarification. The treatment was performed with He-Ne laser irradiation, independently or in combination with anti-viral medicines: Herplex, Alphaferon, Pandavir (Bulgarian Nigericin). The examination was carried out on: a) the histologic and ultra structure changes; b) the dynamic of the virus titre during the treatment; c) the clinical course of the keratoconjunctivitis herpetic.

**Results** We established: on point 1/ - a clear-cut inhibitory effect in the final reproductive stage (10-15 hour), when the enveloping glycoprotein coating the virus is affected; on point 2/a - the histologic and ultrastructural changes in the conjunctiva and the cornea in the infected and treated with triple combination (He-Ne laser, Pandavir and Alphaferon) eyes was weakest and disappear fastest; on point 2/b - in the eyes treated separately and with double combination the virus titre is 0.9 to 1.6 log<sub>10</sub>, but in the eyes treated with triple combination (He-Ne laser, Pandavir, Alphaferon) is 0.2 log<sub>10</sub>; on point 2/c - Non-treated eyes (placebo group) showed improvement for 13.8 days mean; the mean time of re-convalescence of the eyes treated separately and with double combination is from 7.1 to 12.9 days, but with triple combination (He-Ne laser, Pandavir, Alphaferon) is 3.7 days.

**Conclusion** These data show a good possibility for application of the triple combination (He-Ne laser, Pandavir and Alphaferon) as an effective herpes simplex virus inhibitor.

### TITLE Does nerve growth factor modulate the allergic inflammation in vernal keratoconjunctivitis ?

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**Purpose.** We evaluated nerve growth factor (NGF) plasma levels in 15 patients with vernal keratoconjunctivitis (VKC) and the expression of NGF high affinity receptor (TrkA) in a conjunctival biopsy of VKC.

**Methods.** We used an immunoenzymatic assay to measure NGF plasma levels in 15 patients with VKC and 21 healthy controls. NGF receptor (TrkA) was identify using a monoclonal antibody (Genzyme USA).

**Results:** Plasma levels of NGF were significantly higher ( $p < 0.001$ ) in patients with VKC (median=101 pg/ml) than in controls (median=42.5 pg/ml). A significant correlation was observed between plasma levels of NGF and the number of mast cells in the tarsal (CC=0.81,  $p < 0.005$ ) and bulbar conjunctiva (CC=0.77,  $p < 0.01$ ) of patients with VKC. NGF plasma levels was inversely related to the number of circulating eosinophils (CC= -0.61,  $p < 0.05$ ) and to the increased serum levels of eosinophil cationic protein (CC= -0.71,  $p < 0.01$ ). A marked expression of TrkA was also observed in the conjunctival specimen of VKC.

**Conclusions:** Our data show that NGF plasma levels are increased in VKC and that this neurotrophin may exert its biological action on the conjunctiva through its receptor.