

## **IMPROVING THE TREATMENT OF RETINAL DISEASES IN CHILDREN**

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### **ABSTRACT**

*In this study, the effectiveness of neuroprotective drugs (cortexin) and laser stimulation in the treatment of retinal diseases was determined. 40 patients aged 8-15 were examined at the Bukhara Regional Eye Hospital. In children, standard examinations were performed and divided into groups, and in the outpatient setting were used methods of lymphostimulation, laser stimulation. Pre-treatment and post-treatment outcomes were analyzed and treatment efficacy was assessed.*

**Keywords:** Cortexin, laser stimulation, lymphostimulation, retinal dystrophy.

### **АННОТАЦИЯ**

*Ушбу ишда тўр парда касалликларини даволашда нейропротектор (кортексин) дори воситаси ва лазерстимуляциянинг самарадорлиги аниқланди. Бухоро вилоят кўз касалликлари шифохонаси поликлиникасида 8-15 ёшгача бўлган 40 та бемор текширувдан ўтказилди. Болаларда стандарт текширувлар ўтказилди ва гuruhларга бўлиниб, амбулатор шароитда лимфастимуляция, лазерстимуляция усуллари қўлланилди. Даводан олдинги ва даводан кейинги натижалар тахлил қилиниб, даво самарадорлиги бахоланди.*

**Калит сўзлар:** Кортексин, лазерстимуляция, лимфастимуляция, тўр парда дистрофияси.

### **АННОТАЦИЯ**

*В этом исследовании определялась эффективность нейропротекторных препаратов (кортексина) и лазерной стимуляции при лечении заболеваний сетчатки. В Бухарской областной глазной больнице обследовано 40 пациентов в возрасте 8-15 лет. У детей были проведены стандартные обследования и разделены на группы, а в амбулаторных условиях применялись методы лимфостимуляции, лазерной стимуляции. Были проанализированы исходы до и после лечения, а также оценена эффективность лечения.*

**Ключевые слова:** кортексин, лазерная стимуляция, лимфостимуляция, дистрофия сетчатки.

## **INTRODUCTION**

Retinal disease is the most common of the eye pathologies, occurring in 3-4 cases per 1,000 population. Therefore, the development and systematic application of pathogenetic therapeutic measures aimed at the treatment of diseases of the retina and optic nerve is one of the current problems of modern ophthalmology. Retinal dystrophy in children is a pathological condition that can lead a child to blindness. Dystrophy can be stopped and eliminated if treated with timely attention to characteristic symptoms. Many patients see a specialist late and forget that there is a risk of vision impairment.

40 patients were examined at the Bukhara Regional Eye Hospital. The age of children ranged from 8 to 15 years, of which 25 were boys (63%) and 15 were girls (37%).

Standard ophthalmologic examinations (visiometry, refractometry, OST, pneumotometry, A-Vskan) were performed in all patients. Patients received outpatient treatments (lymphostimulation and laser stimulation). The children were divided into 2 groups. In the 1st group, 20 children were treated by the traditional method (lymphostimulation). In the 2nd group, lymphostimulation and laser stimulation were performed.

In traditional treatment in group 1: emoxipin, ascorbic acid, and riboflavin solutions were used for lymphostimulation, and lower jaw lymph nodes were stimulated. In group 2 treatment: emoxipin, ascorbic acid, and riboflavin solutions were used for lymphostimulation, and lower jaw lymph nodes were stimulated. Cortex solution (5 mg Cortexin is a complex of water-soluble polypeptide fractions; excipient: 6 mg glycine (stabilizer), white or yellowish white lyophilized powder or porous mass. Pharmacotherapeutic group: nootropic, antioxidant, neuroprotective. The laser stimulation using the MAKDEL-08 device took 5 minutes.

## **DISCUSSION AND RESULTS**

Among children in the 1st group, retinal pigmented dystrophy - 5 (25%), retinal pigment-free dystrophy - 3 (15%), incomplete knx atrophy - 11 (55%), g) maculodystrophy - 1 (5%) .

Among children in the 2nd group, retinal pigmented dystrophy - 7 (35%), retinal pigment-free dystrophy - 6 (30%), incomplete knx atrophy - 4 (20%), maculodystrophy - 3 (15%).

In 7 patients (35%) of the 1st group of patients who received the course of treatment, visual acuity increased from 0.05 to 0.08 before treatment, in 6 (30%) to

0.1-0.2 before treatment, in the remaining 5 (25%) to 0.3. Visual acuity was 0.1-0.2 in 7 patients after 1 course of treatment, and this effect was maintained for 5-6 months. In 6, visual acuity was 0.3–0.4, and this effect remained unchanged for the next 6 months, and after 6 months, visual acuity gradually decreased.

In the remaining 5 patients, visual acuity was 0.5-0.6 after the first course of treatment. In this case, the effectiveness of treatment remained unchanged for 4-6 months, and in the following months gradually began to decline. In 8 patients (40%) of the 2nd group of patients undergoing treatment, visual acuity increased from 0.07 to 0.08 before treatment, in 6 (30%) to 0.09-0.1 before treatment, and in the remaining 6 (30%) to 0.2; Was 0.3, and visual acuity after 1 course of treatment was 0.2–0.3 in 8 patients. In 6 of them, visual acuity was 0.4-0.5, and this effect remained unchanged for the next 6-8 months. In the remaining 6 patients, visual acuity after first course of treatment was 0.6-0.7.

## CONCLUSION

1. In the Department of Ophthalmology of the Department of Ophthalmology and Clinical Hospital of Bukhara State Medical Institute in the treatment of patients with retinal diseases and optic nerve atrophy, the method of lymphostimulation, combined with the drug cortex, laser stimulation with MAKDEL-08 achieved significant results.

2. No adverse drug reactions were observed in any of the patients who underwent treatment with cortex solution in combination with lymphostimulation. The effectiveness of lymphostimulation with a solution of cortex was positive in all patients involved in treatment, visual acuity was significantly improved in patients.

3. In some patients, positive results began to appear in the last 1 month of treatment and remained stable for 6 months. Along with visual acuity, positive changes in the visual field were observed, leading to improved peripheral vision.

4. The combined use of lymphostimulation, cortexin and treatment with MAKDEL-08 improved regenerative properties of eye tissue, nourishment of the retina and optic nerve, improved vascular wall strength and improved visual function.

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