

## POINT OF VIEW

*Proskurina O. V., Tarutta Ye. P., Iomdina Ye. N., Strakhov V. V., Brzhesky V. V., Vorontsova T. N.*

**Classification of asthenopias proposed by Board of Accommodation and Refraction**

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According to the definition of the Expert council on accommodation and refraction, asthenopia is a functional disorder of vision with typical symptoms manifested in the fact that visual work becomes difficult or impossible. The paper suggests a classification of asthenopias which generalizes literary data and takes account of the authors' own research results. The classification distinguishes among four forms of asthenopia, depending on the causes inducing the condition: accommodative (or refractive-accommodative), muscular (motoric), sensory (neuroreceptive) and psycho-emotional asthenopia. We also propose to distinguish three stages of asthenopia with regard to the severity of the symptoms: compensation, subcompensation, and decompensation stages.

**Keywords:** asthenopia, classification of asthenopias, fatigue of eyes

## DISCUSSION

*Ovechkin I. G., Grishchenko I. V.*

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## CONTACT LENSES

*Papanyan S. S., Fedotova K., Grabovetsky V. P., Andriyenko G. V., Novikov C. A.*

**Experience in the use of rigid gas permeable scleral contact lenses in patients with low visual functions**

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Scientific research conducted in order of functional rehabilitation of patients with complex types of refractive error and corneal diseases led to the development of a fundamentally new type of vision correction which were unsuccessfully used in the past because of the lack of adequate instrumental support for dynamic monitoring of such patients. Rigid gas permeable scleral contact lenses offer new opportunities to improve visual acuity in patients with complex types of refractive error and corneal ectasia. The authors share their own experience of scleral lenses selection and functional rehabilitation of such patients.

**Keywords:** corneal ectasia, keratoconus, penetrating keratoplasty, rigid gas permeable contact lenses, scleral contact lenses

## SPECTACLES AND OPHTHALMIC LENSES

*Shcherbakova O. A.*

**Is it profitable to have in office edging?**

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Little by little the optical market is stabilizing and adapting to today's economic situation. While customers exhibit more rational approach to buying glasses, the optical companies review their cost of production. More and more CEOs are thinking about whether it is profitable or not to open a new workshop or to reorganize an existing one.

**Keywords:** finishing equipment, optical salon, optical workshop, spectacles manufacture

## DIAGNOSTICS, TREATMENT, PHARMACOLOGY, PHARMAGY

*Ovechkin I. G., Trubilin V. N., Grishchenko I. V., Malyshev A. V., Yudin V. Ye.*

**Scientific substantiation, development and assessment of the clinical efficacy of the procedure for the treatment of accommodative asthenopia in patients with hypermetropia**

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The authors have developed methods of combined use of bi-directional technology physical impact (a low-energy laser radiation, stimulation of accommodation, audio-visual relaxation), which provides effective correction of accommodative asthenopia in patients with hypermetropia, as evidenced by a pronounced, statistically significant positive dynamics of clinical and functional (accommodative), and subjective indicators of the visual system, as well as medical and psychological status of the patient after a course of rehabilitation activities.

**Keywords:** accommodation, visual work, hypermetropia

*Kovalskaya A. A., Koskin S. A.*

**Modern oculography in ophthalmology**

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Literature review is devoted to development of oculography as a method of eye movement investigation. Modern models of infrared oculographs are compared. The area of application of eye-trackers and diagnostic capabilities in ophthalmology are described.

**Keywords:** eye movement, eye-tracking, mobility of the eye prosthesis, visual acuity, optokinetic nystagmus, preferential looking, strabismus, video-oculography.

## EDUCATION

**XIX educational forum for opticians, optometrists and ophthalmologists in Saint-Petersburg**

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Educational forum in medical and technical college in Saint-Petersburg is traditional annual event, where eyecare professionals can engage in continuing education. The 19th forum was held on 14–16 April, here is our brief report.

## NEW PRODUCTS

*Schroth V., Prenat O., Vlasak N., Crelier R.*

**Hoya EyeGenius: new method for measuring and correcting fixation disparity**

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Hoya EyeGenius is a completely new system for full vision examination with a unique Hoya method for measuring and correcting fixation disparity. Based on an interactive test procedure, it involves the customer directly, offering maximum engagement and reliability. It is the fastest solution on the market today, delivering the ideal prismatic prescription in under ten minutes.