

## Possibilities of Rehabilitation of Patients with Penetrating Wounds of the Eyeball

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**Relevance** The effectiveness of treating patients with penetrating wounds of the eyeball depends on the quality of specialized medical care. It includes a full scope of primary surgical treatment of the wound and adequate conservative, surgical treatment of post-traumatic inflammatory complications, professionally correct observation of patients with consequences of penetrating wounds of the eye. Outpatient observation of these patients is carried out mainly in polyclinics at the place of residence. Nevertheless, ophthalmologists of the polyclinic do not always have the opportunity (in terms of instrumental and laboratory equipment, availability of appropriate specialization) to competently assess the severity of the injury and the prognosis of the course of the post-traumatic period, and are not always competent in resolving issues of surgical rehabilitation of these patients.

The study of the treatment outcomes of penetrating wounds of the eyeball is of interest from the point of view of medical and social rehabilitation of this category of patients.

**The objective** is to study the outcomes of rehabilitation of patients with penetrating wounds of the eyeball in the conditions of an ophthalmological hospital and outpatient clinic in the Samarkand region of the Republic of Uzbekistan.

**Materials and methods of the study.** All patients underwent surgical treatment of eye wounds in a hospital setting, under local anesthesia and under the supervision of an anesthesiologist for the purpose of premedication and control arterial hypotension. An analysis of the results of complex treatment of 82 patients with penetrating wounds of the eyeball was conducted. The bulk of this category of patients were men. There were 80 men and 2 women. All patients were of working age: 24 (29.0%) were under 20 years old, 26 (31.6%) were 21-30 years old, 17 (20.6%) were 31-40 years old, 10 (12.0%) were 41-50 years old, and 5 (7.0%) were over 50 years old. In 53 (74.0%) patients, the injury was accompanied by the introduction of a foreign body into the eye. In 42 (79.1%) cases, the injury was accompanied by the presence of magnetic foreign body, and in 11 (20.9%) - amagnetic. The injury was industrial in 48 (58.5%) patients, domestic - in 33 (41.5%).

To clarify the localization of the eyeball injury, the prevalence of the process, the depth of the lesion, the presence and localization of a foreign body and to determine its nature, the following modern diagnostic methods were used: clinical complaints, collection of anamnesis, symptomatic signs; ophthalmological: the method of lateral illumination, biomicroscopy on the IIIJI 52 device (Ukraine), standard visometry according to the Golovin-Sivtsev and Orlov table, determination of intraocular pressure by palpation, examination in transmitted light, computer perimetry (control of the visual field), radiological: orbital radiography according to the Komberg-Baltin method, ultrasound: ultrasound of the eye on the "Sanomed" device (USA), instrumental: computed tomography of the brain to exclude damage to the orbital bones.

Studies have revealed extreme variability in the severity of traumatic eye injury, making it extremely difficult to group patients into homogeneous groups.

**Results of the study.** In this regard, the scope of treatment measures carried out on this patient was also varied.

In 78 cases (95.1%) of injuries, primary surgical treatment of the wound was performed using microsurgical needles, of which 44 (56.4%) patients did it on the first day after the injury, and 34 (43.6%) patients did it after 24 hours. The operations were performed under a microscope. For the prevention of intraocular infection, a solution of fortum and dexamethasone in standard doses was administered intravitreally through the pars plana of the ciliary body immediately after surgical treatment of the wounds. In case of partial hemophthalmos, a solution of hemaza was simultaneously administered intravitreally.

During the operation and in the postoperative period, broad-spectrum antibiotics, corticosteroids, desensitizing agents, enzyme therapy, tissue vitamin therapy and physiotherapeutic procedures were actively used. In particularly severe cases, if necessary, patients were sent for treatment to specialized microsurgical institutes in the central cities of our republic, in Tashkent.

As a result of the treatment, the following immediate outcomes were achieved: it was possible to save 76 eyes (92.7%), of which 15 eyes (19.7%) had visual acuity from 0.5 to 1.0, 11 eyes (14.4%) had visual acuity from 0.2 to 0.4, 22 eyes (28.9%) had visual acuity from 0.01 to 0.1, and 28 eyes (37%) had vision from zero to correct light perception.

The highest number of adverse outcomes was observed in the group of patients with intraocular foreign bodies, especially amagnetic ones.

An analysis of our materials allows us to note that penetrating wounds lead to varying degrees of severity of damage to the eyeball, which end, despite the use of modern diagnostic and treatment methods, with unfavorable outcomes leading to disability. The development of more effective methods for treating patients with penetrating wounds to the eyeball and their consequences is relevant.

**Conclusions:** timely hospitalization of patients with visual injury, professional medical care and surgical treatment of wounds in a hospital setting under a microscope and competent postoperative administration and treatment of these patients lead to a reduction in visual disability and rehabilitation of patients.

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