

m. to 0.1 – 0.5; from 0,06 to 0.1 – 0.7). Postoperative care included standard local and general therapy using corticosteroids during 6 months.

**Conclusions.** The open sky surgery is very dangerous for the future functions of the eye. This modification of PK allows us to avoid open sky movement during operation and to save the eye from the

development of dangerous complications of open sky eye surgery. According to our experience, this technique may be used as operation of choice in the microsurgical treatment of complicated cases of corneal diseases.

**Keywords:** keratoplasty, penetrating keratoplasty, open sky surgery

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## THE CLINICAL NEED FOR CORNEAL GRAFTS IN THE REPUBLIC OF MOLDOVA

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### **Rezumat**

#### ***Necesitatea clinică de grefe de cornee în Republica Moldova***

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*Patologia corneei reprezintă a treia cauză de orbire la nivel mondial, după cataractă și glaucom, cu afectarea a circa 10 milioane de persoane care suferă de cecitate bilaterală. Se estimează că 12 milioane de oameni sunt în așteptarea transplantului de cornee. Doar 50 de țări acoperă necesitatea proprie de servicii de transplantologie. Majoritatea pacienților din listele de așteptare sunt din țări unde lipsește banca de transplant sau nu au acces la țesuturi donate.*

**Cuvinte-cheie:** *greafa de cornee, transplant, patologia corneei*

**Introduction.** Corneal pathology is considered the third leading cause of blindness worldwide, after cataracts and glaucoma, with 10 million people with bilateral corneal blindness [1]. An estimated 12 million people are waiting for a corneal transplant. 50 countries are considered self-sufficient, almost self-sufficient or adequate for corneal transplantation [1]. Most patients on waiting lists live in countries without an eye bank or do not have routine access to donated tissues.

Global data from a 2012 study, in which the Republic of Moldova also participated, show that 184.576 corneal transplants were performed in 116 countries out of the 148 countries participating in the study [2]. According to this study, the United States had the highest transplant rate - 19.91 per 100,000 population, followed by Lebanon - 12.21 per 100,000 population and Canada - 11.7 per 100,000 population, while the median of the 116 countries analyzed was 1.91 per 100,000 population. The global study quantified the considerable deficiency of corneal graft, with only 1 cornea being available for 70 needed. As with organs, the global demand for corneal graft to be transplanted goes beyond the available supply.

**Materials and methods.** The research was conducted based on the information about the transplantation field of the health system, with reference to national and international data and sources. Underlying the research was the analysis of key elements in the activity of donation and

transplantation of human tissues during the years 2013 - 2019.

**Results.** In the Republic of Moldova, in the structure of ophthalmic morbidity, corneal pathology occupies a third place and constitutes 23% of the total number of ocular pathologies. Inflammatory processes that produce corneal ulcers, considered an ophthalmic emergency, account for 20% of cases [3].

The waiting list for corneal transplants is growing steadily, an average of  $27.25 \pm 9.9$  patients per year, or 7.8 patients per million population. The rate of patients who received corneal transplants compared to patients enrolled in the waiting list varied depending on the actual number of donors, and was the highest in 2013 and accounted for 77%, then decreased to 11.8% in 2015, and subsequently increased to 33.8% in 2019.

During the research period, the total annual number of corneal transplants in average was of 9.5 with 9.5 grafts per million population. The rate of transplanted patients compared to patients on the waiting list averaged  $36.1 \pm 11.7\%$  (10.3 patients per million population), that is, only 1 cornea available for almost 3 patients in need of a transplant. The Human Tissue Bank collected and processed an average of  $46.8 \pm 4.6$  corneas per year from  $23.2 \pm 2.4$  deceased donors, of which an average of  $11.2 \pm 3.3$  (23.9%) they were destroyed for various reasons. Thus, in order to achieve 100% coverage of corneal transplant services in relation to needs, it

would be necessary to perform  $\approx 26.3$  corneal grafting surgeries per million population annually.

The study carried out a comparative analysis of average data on tissue transplants in the EU countries for 2018, with data from the Republic of Moldova. At the level of the EU countries, in 2018, 26.5 ophthalmic tissue transplants were performed with 48.4 grafts per million population (data provided by 21 countries with 416 million population) [4]. Therefore, the estimated annual needs for the Republic of Moldova correspond to the number of corneal grafting surgeries performed in the EU countries.

**Conclusions.** The study revealed that annual assessment of the degree of assurance of the health system with corneal grafts and ensuring minimum stocks in the Human Tissue Bank will cover the needs of practical medicine. This requires a complex analysis of the donation and transplantation process at the national level, the activity of the Human Tissue Bank, the morbidity of the population through various diseases that require transplantation.

**Keywords:** corneal graft, transplantation, corneal pathology.

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## INTERVIU EFICIENT CU FAMILIA PENTRU DONAREA DE ORGANE ȘI ȚESUTURI: EXPERIENȚA DE 8 ANI

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#### Summary

#### **Efficient family interview for organ and tissue donation: 8 years of experience**

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*The objective of the study is the importance of interviewing the family for organ and tissue donation in the Republic of Moldova. Specialists must undoubtedly know the stages of the donation process and give maximum time to families. Our experience once again demonstrated the need for teamwork, respect for the family, determined by emotional support and the time given to it with the use of clear and simple language. Over the years, no family with an acceptance of organ and tissue donation has expressed any regrets, and 96% mentioned a positive impact by accepting the donation.*

**Keywords:** interview; family, tissue and organ donation

**Introducere.** Sistematizarea experienței noastre care poate sprijini crearea unor practici pentru dezvoltarea interviului cu familia pentru donarea de organe și țesuturi în Republica Moldova.

**Metode.** Studiul retrospectiv, realizat în IMSP SCM „Sf. Treime”, în perioada martie 2014 – septembrie 2021, a inclus revizuirea discuțiilor a 89 de familii care au experimentat un interviu pentru donarea de organe, ca urmare 61 și-au exprimat

acceptul. Pentru analiza datelor s-a folosit studiu tematic de conținut.

**Rezultate.** S-au identificat trei etape de interviu: I - anunțarea decesului, care arată necesitatea cunoașterii istoricului bolii și tratamentului pacienților decedați; II - etapa de suport emoțional pentru familia decedatului (emoții de doliu); III - informații despre donație cu solicitarea pentru donare de organe/țesuturi. Una dintre