the cornea in the children. However, new surgical methods are not available for the small pacients.
In 2007, Edward J. Holland, a professor at the Department of Ophthalmology, University of Cincinnati, USA, says that the children are difficult to investigated because they do not complain about their symptoms as an adult, and their immune system increases the chance of a transplant rejection. That's reason of the keratoplasty in the adults is in progress. He also mentions that the endothelial keratoplasty can be used whether the Descemets base layer is intact.
Currently, in the Republik of Moldova, from 2012, specialists prepare the various grafts in the Bank of Human Tissues, such as bone, tendon, skin, amniotic membrane, stem cells and cornea,. In 2013, the first transplant of the cornea was successful in the Municipal Clinical Hospital "H. Trinity". The most of the grafts of the cornea was transplanted in the adults using the transfexing and endothelial lamellar keratoplasty. The children are less likely to have surgery, the causes of which are the technical deficits. In the Medical Center "Ovisus" two children with the age over 11 years old were operated. The diagnoses was "Penetration of the cornea with the foreign bodies". The cornea were released from the Human Tissue Bank and had a number of over 2700 endothelial cells per mm2, useful for transfusion keratoplasty. The dynamic results of transplantation are positive with the restoration of the vision.
Conclusions. The development of the associations of eye banks enables us to promote new techniques of the sampling and preservation of the cornea, which allow us to maintain the quality of the graft, and the pediatric ophthalmology will increase the spectrum of the surgical interventions.

270. THE ROLE OF TISULAR REGENERATION GUIDED IN PROPROTETIC TREATMENT

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Introduction. Guided tissue regeneration aims to replace soft or hard tissues with biocompatible materials in order to complete bone defect and stimulate tissue repair.
Aim of the study. Bringing to the forefront, surgical interventions that aim to replace soft or tough lost tissues, with biocompatible materials that complement the bone defect and stimulate tissue repair.
Materials and methods. A study was conducted considering the paraclinical records / examinations of patients who have presented themselves at a private clinic during a period of 2 years and have received bone additions for proprotetic purposes. The patients were treated between March 2015 and April 2017. The results were statistically processed using the Microsoft Office Excel program and Quattro Pro ($p<0,05$).
Results. The study group consisted of 22 patients aged between 35 and 70 years old. Distribution by sex was predominantly male, with 72.7% (16 men, 6 women).
Conclusions. It was found that allograft showed better integration, the resorbtion rate being lower than in the case of using xenografts. Good integration of bone additions has been achieved, indicating the utility of these types of therapeutic maneuvers in proprotetic treatment.
Key words: tissue regeneration, biocompatibles, bone defect

271. BLOOD VESSEL DECELLULARIZATION – CHALLENGES AND PERSPECTIVES.

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Introduction. Cardiovascular disease is a general term for conditions affecting the heart and circulation. It is the number one cause of death globally. It is predicted that the annual incidence of cardiovascular disease - related mortalities will rise to 23,3 million globally by 2030. Developed disorders are often associated with the narrowing or blockage of the luminal diameter leading to inhibited blood flow through the affected vessels and tissue damage due to inadequate nutrient supply. The treatment options depend on the type of condition the person has and may range from dietary and lifestyle modification to pharmaceutical therapies and endovascular or surgical interventions.
Despite advantages and increased popularity of endovascular surgery, the preferred treatment for the long term revascularization is surgery utilizing vascular grafts. Currently available conduits for vascular grafting do not satisfy completely surgeons' requirements due to poor clinical efficacy, especially in small diameter vessels applications (< 6 mm). Therefore, tissue-engineered materials are the only alternative solution through the generation of biologically based functional vessels.
Aim of the study. To provide an overview of decellularization techniques employed current to produce a clinically viable tissue-engineered vascular grafts; to highlight both benefits and drawbacks of each strategy.
Materials and methods. Articles containing the keywords: Cardiovascular disease; Tissue-engineered vascular grafts (TEVG); Vessel decellularization; Decellularization reagents; Mechanical properties of vessel substitutes were selected from the PubMed and Springer Link databases.
Results. The use of biological scaffolds composed by extracellular matrix (ECM) as a strategy for tissue or organ replacement has increased. One technique that has shown good results in several tissue engineering applications, including blood vessels, is the use of decellularized scaffolds. Decellularization is the complete removal of all cellular and nuclear matters from a tissue while preserving ECM, and can be done by using detergents, enzymatic digestion, or mechanical stimulation. Decelullarization process induces the loos of the major histocompatibility complex while avoiding any adverse immunological reactions by the host. It allows the use of decellularized biological tissue not only as autografts but also as allografts and xenografts.
Conclusions. It is confirmed that the decellularization process is suitable for the generation of acellular scaffolds for vascular tissue engineering applications. However, the best technique that allows the preservation physicochemical properties similar to fresh vessels is yet to be determined. Researches and clinical trials should be continued in this field.
Key words: cardiovascular disease; Tissue-engineered vascular grafts (TEVG); Vessel decellularization; Decellularization reagents

DEPARTMENT OF MOLECULAR BIOLOGY AND HUMAN GENETICS

272. GENETIC ASPECTS OF HIRSUTISM

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