outlines, sometimes irregular thickening. Amielin nerve fibers are distinguished by the presence of a large number of varicosities.

**Conclusion.** In conclusion, we can mention that, by studying the nervous structure of the brain's vascular system in the conditions of chronic and acute vascular pathology, changes were detected, which in fact denotes the presence of the reactive and destructive phenomena of the related nerve fibers. The reversible changes are also noted by the receiver in the reflexogenic areas of the vessels.

Key words: nervous system, blood vessels

### 281. GENETIC ASPECTS IN PARKINSON'S DISEASE

#### Author: Dina Goras

Scientific adviser: Svetlana Capcelea, MD, PhD, Associate professor, Department of Molecular Biology and Human Genetics

Nicolae Testemitanu State University of Medicine and Pharmacy of the Republic of Moldova

**Introduction.** Parkinson disease is a progressive disorder of the nervous system. The disorder affects several regions of the brain, especially an area called the substantia nigra that controls balance and movement. Although the etiology of Parkinson disease is still unclear, most cases are hypothesized to be due to a combination of genetic- 10% and environmental factors.

**Aim of the study.** Evaluation of the genetic and environmental factors in etiopathogenesis of Parkinson's disease. Study of the molecular mechanisms involved in the etiology of PD; Evaluation of the major genes for higher risk of PD; Estimating the role of environmental and genetic factors in the onset, development and prognosis PD; Prospects survey prevention and treatment of PD.

Materials and methods. Scientific articles review.

**Results.** A total of 18 loci in various genes have now been proposed for PD. Mutations within 6 of these loci (SNCA, LRRK2, PRKN, DJ1, PINK1, and ATP 13A2) are well-validated causes of familial parkinsonism. Inheritance is autosomal dominant for SNCA and LRRK2. Inheritance is autosomal recessive for PRKN, DJ1, PINK1, and ATP13A2. Stem cell therapy for Parkinson's disease (Embryonic Stem Cells/ induced Pluripotent Stem Cells (iPSCs) that are adult cells (e.g. skin cells)) is a potential treatment for PD, because the most significant neuronal degeneration is site and type specific (ie, dopaminergic); the target area is well defined (ie, striatum); postsynaptic receptors are relatively intact. Gene therapy has distinct theoretical advantages over conventional treatment for Parkinson's disease as it might preserve or restore dopaminergic neurons through the use of growth factors or alternatively increase the availability of enzymes required for dopamine synthesis.

**Conclusions.** Neurodegeneration in PD is due to three interrelated molecular mechanisms: changes oxiative, mitochondrial dysfunction and degradation of proteins affected. Major genes are involved in Parkinson disease: SNCA, LRRK2, PRKN, DJ1, PINK1, ATP13A2, GBA. Environmental and genetic factors play an important role in the onset, development and prognosis BP, and they can vary from one patient to another and will depend on the root cause. Perspentivele in prevention and treatment of PD are presimptomatic screening and gene therapy. **Key words:** Parkinson's disease(PD), genetic factors, environment factors, stem cell therapy, gene therapy

## DEPARTMENT OF MANAGEMENT AND PSYCHOLOGY

## 282. THE IMPACT OF IMPLEMENTATION OF MEDICAL INSURANCE ON HEALTH INDICATORS OF POPULATION IN THE REPUBLIC OF MOLDOVA

#### Author: Nicolae Bobescu

Scientific adviser: Larisa Spinei, MD, PhD, Professor, Department of Management and Psychology

Nicolae Testemitanu State University of Medicine and Pharmacy of the Republic of Moldova

**Introduction.** Medical insurance is a form of health care based on principles of solidarity, constituted by pre-established payments with the purpose of covering the treatment costs of insured events. By estimating the total risk of a group of people, an insurer can develop a stable funding structure, based on annual/ monthly contributions that will form a budget. It's administered by an organization, such as a government agency, a private business, or a nonprofit organization. Health care has a major relationship with the economic activity of a state. It provides directly healthy workforce and social welfare, depending on the attention given to it. Following the evolution of the insurance system in a state, we can assume how the healthcare reforms will be developed in future. Medicine has a direct influence on the social and economic activity of the Republic of Moldova (RM), which requires a thorough analysis of the evolution of the health system in order to realize once again what stage we are and what should be done.

**Aim of the study.** To determine the impact of implementation of medical insurance on health indicators of population in the Republic of Moldova.

**Materials and methods.** We evaluated the evolution of health indicators in RM before and after implementation of medical insurance and reported them to other countries by making a comparative and descriptive analysis.

**Results.** Before adopting the medical insurance, healthcare budget was totally dependent on the state budget. The last one was weakened because of the instability of economic relations with other states, the closure of factories, migration of population. Under these conditions, the budget allocated to health decreased between 1996-1999 by 31%, per capita being allocated below 10\$. Healthcare expenditure of GDP experienced a surprising drop from 6,69\$ in 1996 to 2,9% in 1999. Following the implementation of health insurance, the medical system raised. RM invested 10% of GDP for health in 2015, even over some European countries. The total health expenditures were 12.36 billion lei, and the total income in the insurance funds was 5.1 billion lei, compared to 361 million lei in 1999.<br/>by /> However, the economic crisis caused the massive devaluation of the national currency in 2015 reduced total health spending in dollars by 17.67%. All this happened despite the fact that the budget in national currency has increased.

**Conclusions**. The health system after the implementation of the medical insurance has made a significant progress but has always been negatively influenced by the low economic development of the country. What again emphasizes the interdependence between economic, social and medical factors.Positive evolution of health budget should always be reported to an international currency, in order to avoid mistakes of interpretation due to fluctuations of the local economy.

Key words: Health insurance, health indicators, budget evolution

#### DENTAL MEDICINE

DEPARTMENT OF ORAL AND MAXILLO-FACIAL SURGERY AND ORAL IMPLANTOLOGY ARSENIE GUŢAN

# 283. INFLAMMATORY ODONTOGENIC CYSTS: ETIOLOGY, DIAGNOSIS AND TREATMENT

Author: Stela Sircu

Scientific adviser: Dabija Ion, MD, University assistant, Department of Oral and Maxillofacial Surgery and Oral Implantology *Arsenie Guțan*