hereditary (40% of cases), with an earlier medium age of diagnosis being 1 year. The disease is characterized by a variety of symptoms, among which the most important are the leykokoriya and strabismus. International common classification system of the severity of the disease allows the implementation of general procedures for the treatment of disorder according to the degree of its development. Current trends in the treatment are aimed at maximum preservation of the patients vision, and include techniques such as cryotherapy, laser and transpupillary thermotherapy treatment along with the standard radiation therapy. Genetic diagnosis methods include PCR analysis, DNA sequencing, Southern blot method, and allow to reveal the problem at an early stage of development. During the period from 1991 to 2004, in Moldova were registered 37 children with retinoblastoma, representing 1.26% of the total number of children with malignant tumors in a given time.

Conclusion: Retinoblastoma is the most common type of eye cancer in children. However, with early detection, sequential treatment and strict compliance with the doctor's recommendations, it is possible to preserve the vision in 75% of cases. The introduction into medical practice of genetic diagnosis and genetic counseling of families is appropriate, as this helps to reduce the mortality and morbidity in patients due to early detection of problems and their early treatment.

Keywords: Retinoblastoma, modern diagnostic methods, RB1.

294. COMPARATIVE GENETIC ANALYSIS OF CYSTIC FIBROSIS IN POPULATIONS OF THE REPUBLIC OF MOLDOVA AND INDIA

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Cystic Fibrosis is the most common and life shortening disease in Caucasians, and it is found commonly in Europe, Australia and United States of America. It is an autosomal recessive monogenetic disorder that affects several system, which is caused by mutations in the CFTR (Cystic Fibrosis Transmembrane Conductor Regulator) gene. This gene encodes for the transmembrane conductance regulator protein which responsible for the conductance of chloride ions across epithelial cells in different organs. This affects the transport of salt and water in different organs, which results in thick secretions.

Aim of the study*:* To study the genetic component and mutation of cystic fibrosis in different races especially in India and Moldova, to understand the pathogenesis of the genetic material that causes cystic fibrosis.

Material and methods. Analysis of latest articles and databases concerning Cystic fibrosis in both populations.

Conclusion. 1 in 2000 is the prevalence of Cystic fibrosis patient in Moldova whereas 1 in 40000 to 100000 is the prevalence in India.Recent statistics suggest that 1 in 25000 expatriates of India in United Kingdom and United States of America have Cystic fibrosis. However, the exact number of

Cystic Fibrosis patients in India are unknown compared to Moldova due to the lack of studies conducted in the Indian population and also non availability of screening or investigation methods. More than 1000 mutations have been identified in CFTR gene in different ways.ΔF508, which means deletion of phenylalanine at the 508 positon, is the most common mutation found. The most frequent mutations of the CFTR gene in Moldavian populations are ΔF508, G542X & W1282X, and in India ΔF508, -219insG & S169G.

Better understanding and screening of the population have increased the life expectancy of the cystic fibrosis patients. New screening methods need to be implemented into the health care systems as well as holding seminars for the health care professionals to improve the diagnosis and patient support. Early diagnosis will improve the life of patient and reduce mortality.

Key words: Cystic Fibrosis, CFTR, Genetic component, prevalence, ΔF508.

295. FACTORS INVOLVED IN MUSCULOSKELETAL PAIN IN ELEMENTARY SCHOOL STUDENTS

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Background: Musculoskeletal pain in elementary school students is a current issue. Known risk factors include: family history of back pain, time spent watching tv or sitting at the computer, gender – female, practicing high intensity performace sports, history of back injury, altered general state of health.

Objectives: This study aims to identify a correlation between the onset of back pain and individual risk factors, including family history, time spent in certain activities (prolonged sitting in front of the tv or computer), physical stresses during sports*,* and backpack weight.

Materials and methods: The study was done on a sample of 225 students of grades 1 to 4, aged between 7 and 11 years old. The data was gathered through a 32-item questionnaire, in the city of Targu Mures over the period of a week, with the teachers and parents consent.

Results: 65,3% of the students had relatives that weresuffering from back pain, 3,1% have had their back injured at some point, 56% spend between 1 and 2 hours in front of the tv/computer, 60% practiced some form of performance sport and for 30,6% of the students the length of the training session was about 1 hour. Most frequently, pain was localized in the back (16,8%) and shoulder (11,11%). For 85% of the students the weight of their backpack exceeded the limits stated in the current legislation. A relationship between musculoskeletal pain and risk factors -time spent in front of the tv/computer, practicing advanced sports-, was found.

Conclusions: A statistically significant relationship was found between musculoskeletal pain and the time spent in front of the tv/computer (for more than 2 hours a day), training in performance sports for more than one hour a day.

Keywords: Musculoskeletal pain, backpack weight, students.