

REVIEW

According to Order No. R-109-81/21.03.2024. of the Rector of MU-Varna

by Prof. Dr. Dimitrichka Duchevea Bliznakova, MD

Regarding the competition for the acquisition of the scientific degree "Doctor"

by Dr. Zhivka Emilova Chuperkova, MD

Dr. Zhivka Emilova Chuperkova was born on April 17, 1988 in the city of Petrich. She graduated from Peyo Kracholov Yavorov profiled high school in the city of Petrich in 2007. In 2013 she graduated in medicine from Medical University-Varna.

Professional Development:

- From 2013 to 2014, she was assigned as a doctor in an outpatient pediatric practice. From 2014 to 2018 she was a resident in the Department of Pediatrics at MU-Varna. She acquired the specialty "Pediatrics" in 2018. Since 2019, she has been appointed as a pediatrician.
- From 2018 to 2021 - specialist in child neurology. Acquired specialty in 2021.
- From 2020 to 2024 - doctoral student in pediatrics.

Academic Development:

- Appointed as assistant professor in pediatrics in 2018.

Publications:

- 6 full-text publications;
- 13 reports at scientific forums.

Participation in projects :

- "Feel 4 diabetes".

Membership in professional and scientific organizations:

- Bulgarian Pediatric Association;
- Bulgarian Society of Pediatric Neurology.

Professional and social skills:

- Computer literacy;
- Interests in the field of: pediatric neurology, epileptology and functional studies of the central nervous system (EEG)
- Possesses organizational and communication skills, teamwork skills.

Languages: Bulgarian, English and German.

Dr. Zhivka Emilova Chuperkova's thesis is on the topic of "Quality of life and comorbidity in children with epilepsy." It is presented on 198 pages. It contains 65 tables, 84

figures and 2 appendices. Cited references are 304, of which 17 are in Cyrillic and 287 are in Latin.

The work is constructed properly.

The literature review is detailed. It emphasizes epilepsy as a chronic disease of the CNS which encompasses different conditions and syndromes. Seizures are described in detail. They represent a transient manifestation of abnormal brain activity and present clinically with motor, sensory, autonomic, mental and/or behavioral manifestations, which in some cases can also occur with loss of consciousness. Emphasis is also placed on the fact that the highest incidence of epilepsy occurs in the first year of life and that some epileptic syndromes are unique to childhood.

The aim of the present work is to conduct a study of comorbidity in pediatric patients with epilepsy and to assess its impact on their quality of life.

The tasks are well formulated, as the 2nd, 4th and 5th tasks are related to drawing up a protocol for the relevant sample, analyzing and summarizing the data on available comorbidity and searching for correlations and causal relationships between the studied variables and the quality of life.

The working hypotheses are 4.

Material:

In the present study, 100 pediatric epilepsy patients and 100 parents were studied. The research was conducted in the period 2021-2023 with completion of a survey questionnaire (parents) and the KINDL^R quality of life questionnaire.

Methods:

- Survey method;
- Measurements;
- Statistical methods: descriptive and analytical.

Results

One hundred children with epilepsy and their parents were analyzed. Information was collected for each of the parents, regarding age, place of residence, mother language, marital status, education, as well as professional characteristics. Data on the pregnancy, birth and the neuropsychological development of the child were obtained. In 78 of the cases, the health status of the child was defined as good and in 22 cases – as bad.

Epilepsy was determined to be genetic in 52 cases, structural/metabolic in 34, immune – 1, with an unknown cause – 13. In the group with comorbidity, a lower age at the 1st attack and a higher monthly frequency of attacks were reported. Significant differences were reported between children with and without comorbidity regarding the type of seizures observed. There is a predominance of structural/metabolic epilepsy in patients with comorbidity.

Accompanying diseases were found in 60 of the patients in the sample. They are divided into three large groups - neurological, psychiatric and developmental disorders, and somatic. With additional questions in the survey, it is specified how many accompanying diseases there are in each patient, whether they were diagnosed before or after the onset of epilepsy, whether they are treated and monitored by a relevant specialist. Comorbidity was registered in 60 patients - 16 of them had one disease, 18 - two, and 26 - three or more. In 25 of the cases, the debut of accompanying diseases was before that of epilepsy, in 20 - after, and in 16 cases comorbidities were registered both before and after the onset of epilepsy.

The reliability of the Bulgarian version of KINDL^R questionnaire was determined

The questionnaire includes the following items: general quality of life, physical well-being, emotional well-being, self-esteem, family, friends, school, and chronic illness.

Discussion includes demographics, pregnancy and birth, neuropsychological development, epilepsy data, and comorbidity.

Analysis of the epilepsy data predictably showed the lowest age for the three measures considered – first seizure, diagnosis and last seizure – in the 4 to 6 year group and highest in the 14 to 17 year group. This also refers for the increase in age at the first recorded attack and at diagnosis in older age groups.

Comorbidity

The following comorbidity groups were analyzed: neurological, psychiatric and somatic. Of neurological diseases, the most common comorbidities were headache and sleep disorders. Psychiatric conditions and cognitive impairment have been reported. Somatic concomitant diseases were reported in 34 cases, of which - endocrine diseases - 17 children with obesity, 2 children with diabetes mellitus type 1, and 2 thyroid gland diseases. Gastrointestinal disease cases were registered in 10 cases, spinal distortions in 8, cardiovascular diseases in 5, onco-hematological – in 4 cases. Diseases of the genitourinary system were also reported, though only in 3 cases, as an important element in the structure of comorbidity.

The results and discussion confirm the working hypotheses of the study. There are accompanying diseases in the studied sample. Comorbidity has a negative impact on the patients' quality of life, and in the studied patients it was found that mental and neurological diseases had the most pronounced impact.

Seven conclusions were drawn. All of them have a certain value and confirm the results of scientific work. The 2nd conclusion related to the development of a specialized protocol is extremely important. Comorbidity was found in 60 of the patients from the studied sample. Also extremely important is the 7th conclusion which shows that a greater number of comorbidities has a negative impact, as determined by the KINDL^R questionnaire. This was concluded according to both children's and parents' responses.

There are contributions of theoretical and applied nature.

- Among the theoretical contributions, the high reliability of all used versions of the KINDL^R questionnaire in Bulgarian should be underlined.
- Among the contributions of applied nature, a scientific proof can be considered the successful application of the KINDL^R questionnaire, translated and adapted with the leading participation of the doctoral student in its versions for children in different age groups and their parents.

Dr. Zhivka Chuperkova 's dissertation "Quality of life and comorbidity in children with epilepsy" examines epilepsy, one of the most severe diseases of the CNS in children. The doctoral student has set an ambitious goal to determine the quality of life and comorbidity of these children. The aim and tasks have been completed successfully. Since the years when the term "epilepsy" was first used by Aristotle to define convulsive states, millennia have passed. The analysis of historical data shows that different definitions were given and many studies were done on what provoked the disease, whether it was genetic, and the term "epilepsy" meaning "to seize" sounded scary. Today, in the XXI century, the fight against this dramatic disease continues, new medications have been introduced. But at the same time, the presented thesis analyzes an extremely important topic, as is the quality of life and comorbidity in children with epilepsy. Dr. Chuperkova's thesis is a message for children with epilepsy, their parents, as well as for child neurologists and general practitioners. And once again, the key to success for children with epilepsy is to give them the chance to grow up without deficits, and that depends on parents, doctors and society.

I propose to the respected scientific jury to award the educational and scientific degree "Doctor" in the scientific specialty of Pediatrics to Dr. Zhivka Emilova Chuperkova.

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Varna

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/Prof. Dr. D. Bliznakova, MD/