

14. STRESZCZENIE W JĘZYKU ANGIELSKIM.

Summary

Introduction:

One of the most common neurological problems that occurs among children is cerebral palsy. It is a permanent injury which affects the area of the intensively developing nervous system. It is estimated that about 17 million children suffer from MPD in the world. We are not certain how many children suffer from it in Poland. We do not know the number as there is no statistics available. There are a lot of such cases but in the situation when the border of premature born children survival is moved, it is believed that the number of them will increase.

According to the literature, cerebral palsy occurs from 1,0 to 3,0 children per 1000 live births. It means that cerebral palsy is the first cause of movement disability and second after intellectual disability cause of permanent neurodevelopment injuries among children.

Live organisms undergo seasonal fluctuations. It can be defined as “regularly repeated fluctuations” of different, biological values that occur in a certain unit of time, but these cycles might be yearly, monthly or even daily.

Itinerancy plays a key role in human biology and influence many morphological, physiological and behavioral features and its aspects and occurrences do not only constrain the ontogenetic development but they might also have evolutionary dimension for example changes of activity or parameters of many significant organ systems may cause changes in the organism ability to survive and to give birth and at the same time evolutionary adjustment.

Seasonal fluctuations weak an increase in the amount of certain diseases in the considered season of the year. The particular place is connected with etiology and risk factors.

Although there have been many epidemiological studies applied to cerebral palsy the itinerancy subject has not been analyzed enough yet.

The aim of research:

1. To establish the relation between the MDM's occurrence and the season of year (time of year, month, quarter).
2. To search for dependency between the occurrence of MDM and time of the day, day of the week, and the quarter Moon.
3. To analyse the risk factors of MDM

The research and its methods:

The retrospective research was conducted between February 2015 and August 2015 at the Department of Pediatric Neurology and Rehabilitation, Medical University of Białystok. The level of the risk to develop the cerebral palsy was established in two groups of children: the surveyed group (SG) and the controlled group (CG).

The characteristics of the surveyed group:

The research was conducted on 300 children, the group included 120 girls and 180 boys who were diagnosed with MPD - the patient of the Department of Pediatric Neurology and Rehabilitation, Medical University of Białystok.

The age of the patient was based on the date of birth and the diagnosis of MPD on the basis of the date of acceptance to the Department. The number of finished years and in the group of infants the number of months were considered. The surveyed group consisted of people who were born between 1st of January and 31st of December, aged 1-18 within years 1995-2012.

The information about MPD patients who inhabit the area of podlaski region was received from the disease history. They obtained full medical history which consisted of the interview with parents, neuropsychiatric and specialised examination in required cases.

The recognition of MPD was established according to the WHO definition. For the research only patients with MPD were qualified. The risk factors on these children were based on the interview with parents and health documents of the child. The prenatal, perinatal and postnatal factors were considered. The risk factors were divided and considered as well as motherly, fetal and neonatal.

The way how pregnancy was finished, how long it lasted, type of pregnancy, the miscarriages of the previous pregnancies were equally taken into consideration. The birth mass of the body and the lifespan of the newborn in the APGAR scale were analysed in the perinatal factors.

The surveyed group of children was also estimated according to the mental disability on different levels. The patients were also estimated according to the patients clinical conditions and MPD case.

The topography of central nervous system (CNS) was based on neuroimage examination such as tomography (CT) and MRI scan.

Thanks to the above mentioned information which was received from the interview and medical document, the base was completed and created for each child and the whole surveyed group.

The features of controlled group:

The controlled group was combined of 400 healthy children (180 girls and 220 boys) who attend ten kindergartens in Bialystok.

Results:

My conduct analysed the seasonal fluctuations in children's labour who were diagnosed with cerebral palsy and who come from podlaskie province.

Although the group was selected, we notice higher number of boys over girls which is characteristic for MPD.

The ratio of male sex to female sex equals 1,26 : 1 and this proportion is comparable (there is no statistics difference) to European epidemiological surveys (1,33 : 1 ; $p=0,49$) or Polish (1,22 : 1 ; $p=0,70$). In every group the number of boys overcomes the number of girls. The findings reveal uneven occurrence of MPD.

In different populations of pregnant women it has been observed the complex influence of living conditions of the mother on the development of the pregnancy. Factors such as place of living, parents age, marital status, education, professional career, material status and the way nutrition are the most common ones which appear in literature.

Pregnant woman should follow doctors advice and lead the most appropriate lifestyle. She should not use stimulants, should follow a balanced diet and activity appropriate for her health abilities.

One of the most significant and present problem of contemporary labour is connected with premature labours. The risk of prematurity, low birth mass and postponed intrauterine development is socially strongly differentiated.

It can be applied to mothers:

- who has not planned their pregnancies
- late and seldom male physicians appointments
- living in poor material status
- who smoke and drink alcohol

The less the pregnancy lasts, the higher danger of impairment of immature.

Planning pregnancy or expecting a baby, every future mother should undertake proper steps to provide healthy and right pregnancy period and deliver a full-term child as it means a lower possibility of MPD occurrence.

Every future mother must remember that appropriate physician care, prenatal examinations and healthy lifestyle increase chances for the birth of healthy newborns but also influence their further development.

Science enables many opportunities to avoid unnecessary complications and if we follow doctors advice is extremely simple and offers higher level of safety for every future mother.

The aim of provided research was to establish the number of seasonal fluctuations in the amount of children births with MPD between 1995 and 2012.

The findings of the analysis can be used to predict the number of births in particular months of the next years.

The differences in seasonal fluctuations of births including town- village, sex were also analysed.

To acknowledge the seasonal fluctuations of births in different scales might be a base to analyse the reasons for differentiation of birth numbers in certain months and to understand factors which determine birth process.

The statistics of my findings confirm that the season of year has had an effect according to number of children who are born. The highest number of children with MPD was born in spring and summer so it means the months from September to March.

