LATE EFFECTS OF THE TREATMENT FOR CHILDHOOD CANCER

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Major advances in the treatment of paediatric malignancies have resulted in significant and impressive results, with the overall 5-year survival rate exceeding 80%. Childhood cancer survivors (CCSs), though being cured of cancer, often experience late effects, both physical and psychological, secondary to their cancer or its treatment. Many survivors are unaware of their personal risk, and there is a general lack of information among healthcare providers about long-term treatment-related complications.

To address this, the PaCare network was created in 2008. PaCare is a pan-European multidisciplinary network of health professionals, survivors of childhood cancer and their families, collaborating to reduce the frequency, severity and impact of late side-effects of treatments, with the aim to ensure that every CCS receives an optimal long-term care. The Survivorship Passport (SurPass) has been developed by the ENCCA project with significant contributions from PaCare and SIPOE (The European Society for Paediatric Oncology), together with parents, patients, and survivors’ organisations within the European Union, to meet the needs of survivors. The SurPass provides a summary of each survivor’s clinical history, with detailed information about the cancer and treatments received, together with personalised follow-up and screening recommendations.

It is estimated that there are between 300,000 and 500,000 CCSs in Europe, with a median age between 25 and 29 years, and approximately 8000 to 10,000 new survivors are added every year. Two thirds of survivors have at least one chronic health problem and 30% have severe long-term sequels. The most significant late effects of childhood cancer include those that are neurocognitive and psychological, cardiopulmonary, endocrine including fertility and reproduction, musculoskeletal, and those related to second malignancies. The emergence of late effects depends on many factors, including age, exposures to chemotherapy and radiation, and the severity of the disease. The SurPass provides instant access to the medical history of patients, and includes recommendations for follow-up, depending on individual risk factors. Both survivors and health professionals have the possibility to access this information via a dedicated secured website.

It is of great importance that paediatric oncologists ensure that the national health systems implement services to carefully monitor survivors well beyond the paediatric age.

CHANGES IN RBC INDEXES IN CHILDREN WITH ASTHMA


Aim of this study was to determine changes in RBC indexes in children with asthma. The work started after receiving the consent of the patient and his parents to participate in the study in compliance with the provisions of the UN Convention on the Rights of the Child. Materials of the study do not deny the international Code of Medical Ethics (1983) and the laws of Ukraine correspond to the basic bioethical norms of the Helsinki Declaration, adopted by the General Assembly of the World Medical Association, the Council of Europe Convention on human Rights and Biomedicine (1977).

During the clinical study of blood determined the amount of hemoglobin in Sali, the red blood cell count (RBC) was performed, investigated their morphology, the rate of erythrocyte sedimentation (ESR) on the Panchenkov.

Analysis of the Morphological study of leukocytes with the counting of leukocyte formula, Platelets, were conducted with accepted methods. Results of Hemogram of patients with asthma were compared with results of study of peripheral blood indicators in 40 of almost healthy children of the same age.

We have examined 144 patients with asthma. CBC with morphometric parameters (MCV, MCH, MCHC, RBC, RDW, HCT) was performed with the help of Hematologic Analyzer Gobas Micros 18. Statistical methods (SPSS Statistic 20th edition).

The main RBC index we were interested was MCV. We found significant (p<0,01) difference in MCV between group of healthy children and patient with asthma. They were on 15,32% lower in asthmatic children group. But we didn’t find significant difference between girls and boys with asthma. In the distribution of children on the MCV level, depending on the age, it turned out that the reduction of the RBC MCV observed in all age groups and the most significant difference in the group of 12 – 17 years, by 15.67% lower compared with almost healthy children.

Depending on the indices of the MCV, microcytosis met at persistent severe asthma three times more frequently than normocytosis in relation to the group with persistent mild and moderate asthma (P < 0.05).

According to the control levels of the asthma, microcytosis when uncontrolled course met 2 times more. The presence of microcytosis leads to an increase in the risk of severe asthma in 1.4 times (OR = 1.345; 95% CI 1.241 – 2.822), and in 1.3 times the chances of an uncontrolled course of a (OR = 1.295; 95% CI 1.025 – 3.194) grow.