Comment

This issue of the "Progress in Medicine" has been entirely devoted to pediatric oncology and hematology. It is also addressed to 50 anniversary of institutional pediatric oncology in Poland since initiated by Professor Józef Bożek in 1962 the specialized ward was established in the Institute of Mother and Child in Warsaw.

An editorial by Professor Michał Matysiak presents the history of pediatric hematology wards in Warsaw where children with leukemia and other disorders of hematopoietic system were treated. It was due to Professor Maria Ochocka and Professor Roma Rokicka-Milewska high activity and determination that successful therapy of childhood leukemia and diagnostics and treatment of bleeding disorders and different types of inborn anemias.

Acute lymphoblastic leukemia (ALL) diagnosed in the first year of life is a rare disease, but it causes several therapeutic problems, and, in contrary to ALL in children older than 1 year, the cure rate in neonates is still rather low. In the paper presented multicenter results of clinical, immunophenotypic and genetic characteristic of 36 infants with ALL treated in the hemato-oncologic centers in Poland. Infant ALL is characterized by more severe presentation as compared to ALL in older children. This is reflected by significantly higher initial leukocytosis, more frequent hepatosplenomegaly and central nervous system involvement. *MLL* gene aberrations are hallmark of infant ALL and are associated with pro-B-ALL immunophenotype. Infant ALL is characterized by significantly worse response to treatment as compared to ALL in older children.

Professor Jan Styczyński with his team has analysed 241 of hematopoietic stem cell transplantations in children performed in the Bydgoszcz center. Among auto-HSCT patients 28.5% has died and among allo-HSCT patients 41.2% has died due to disease relapse/progression or transplant-related complications. Na podstawie analizy autorzy stwierdzają, że najczęstszymi przyczynami niepowodzeń po przeszczepieniu komórek krwiotwórczych są nawroty choroby nowotworowej i powikłania infekcyjne. The authors concluded that disease relapse and infectious complications are the main cause of stem cell transplant failure.

The other article from the Bydgoszcz center presents the analysis of 79 consecutive patients undergoing allogeneic stem cell transplantation and treated with palifermin, a recombinant human keratinocyte growth factor used in adults to prevent oral mucositis following allogeneic stem cell transplantation. The authors were able to confirm that palifermin is a safe drug when used in children and adolescents undergoing allogeneic stem cell transplantation. The use of this drug leads to significant decrease of mucosal toxicity and frequency of acute and chronic GVHD.

Two subsequent original papers are presented by authors from Lublin center and are dealing with different of neuropsychological aspects in children treated for cancer. The first publication presents two cases of psychic disorders observed at adolescent boys treated for ALL are a study of steroids-induced disorders' image, as well as treatment attempts. Moreover, the study is the introduction to stating procedure standards for psychic disorders during children's cancer treatment in Polish conditions. The objective of the other was to analyze how parents employ coping strategies in order to participate effectively in the treatment process of a child with cancer. The authors concluded that psychosocial functioning of parents of child with cancer is associated with seeking and modifying strategies determined by the preferred style of coping in a difficult situation as well as by the level of state and trait anxiety. Additional determinants of functioning of a family system are its cohesion, adaptability and communication.

In the next paper a case of a newborn boy with transient myeloproliferative disorder was presented. This syndrome occurs frequently in infants with trisomy 21 but only single cases were described in children with normal phenotype. The child presented in this paper was without phenotypic and genetic features of Down syndrome. Follow-up studies showed resolution of hepatomegaly and elevated WBC and diagnosis of transient myeloproliferative disorder was confirmed. It is of importance to remember that this syndrome can occur also in newborns with normal karyotype to avoid misdiagnosis of inborn leukemia.

Subsequent two papers concern issues which are related to treatment of the most frequent pediatric malignancy – acute lymphoblastic leukemia. First of it presents the results of analysis of prognostic factors in 395 patients treated for ALL in bydgosko-kujawski region in 1976-2010. In recent protocols immunophenotype, initial white blood cell count, BCR-ABL rearrangement, and response to therapy are independent prognostic factor. These factors are used for stratification to treatment groups, and stem cell transplantation. It is worthy to emphasize that prognostic factors in childhood ALL have been changing over time: some of them have lost their significance, while new factors have appeared.

The another paper is focused on the problems related to catheter related infections in children with acute lymphoblastic leukemia. These events are responsible for up to 44% of episodes of bacteremia in children with acute lymphoblastic leukemia. Based on the analysis of 51 febrile episodes in 23 children with acute lymphoblastic leu-

kemia and implanted central venous catheter the authors stated that white blood count, C-Reactive Protein (CRP) and procalcitonin when used together are useful indicators in predicting the course of infection in febrile patients. They also allow to select patients at high risk of bacteremia.

Important problem of the correct diagnosis of congenital spherocytosis is a topic of the next paper. Given that clinical course of spherocytosis may often be not characteristic, which is especially evident for infants, there are still cases misdiagnosed and qualified for splenectomy. Diagnostic algorithm and author's experience with erythropoietin therapy in patients with congenital spherocytosis to avoid the need for transfusion are presented in the paper.

The last article deals with the difficult problem of thrombosis which occurs much less frequently in children than in adults. The authors from the Warsaw centre has analysed 70 cases of children referred due to thrombosis. Based on the cohort results the authors stated that the most common location of thrombosis in children was in deep veins of the limbs. The most common causes of thrombosis in this age group are: inherited thrombophilia, infection and surgery. Thus they postulate to perform diagnostic tests for congenital thrombophilia in all pediatric patients with thrombosis.

This issue of the "Progress in Medicine" comprises papers presenting a huge progress in diagnostics and therapy of childhood cancer and hematopoietic system as well as articles with practical proposals for management of these disorders. I hope it should be of interest of all doctors dealing with pediatric patients.

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