

**PROBLEMS OF LEUKEMIA IN CHILDREN**<sup>1</sup>R. A. Amanov, <sup>2</sup>L. X. Sharipova and <sup>3</sup>D. R. Aslonova<sup>1</sup>Ph.D., Department of Pediatrics, Bukhara State Medical Institute.<sup>2</sup>Senior Lecturer, Department of Pediatrics, Bukhara State Medical Institute.<sup>3</sup>Student of the Bukhara State Medical Institute.**\*Corresponding Author: Dr. R. A. Amanov**

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**ANNOTATION**

The article covers issues on acute leukemia in children in the hospital of the Bukhara regional children's multidisciplinary medical center. The aim of the study was to study the lifestyle of a family of sick children with acute leukemia with a retrospective analysis method. Under supervision were 75 children aged 1 to 15 years who are in the Bukhara regional children's medical multidisciplinary center from 2012 to 2015. The authors concluded that the mothers of children with leukemia during pregnancy were more likely to suffer from anemia, infectious and other diseases, in children with artificial feeding, the incidence of acute leukemia was higher, the mortality of children from acute leukemia at 1 year of age and at the age of 2-7 years was higher, in relation to other ages, the harmful habits of parents in the form of smoking and drinking alcohol increases the risk of developing leukemia in young children, the early use of PCT increases the life expectancy of children.

**KEYWORDS:** Leukemia, artificial feeding, infectious diseases, smoking.**Relevance of the topic**

The peak incidence of leukemia in children occurs at the age of 2-4 years. In connection with the tendency towards an increase in the incidence of leukemia and the continuing high mortality rate observed in recent decades, the problem of leukemia in children has become especially relevant for practical public health.

Acute leukemia is a heterogeneous group of clonal tumor diseases of the hematopoietic tissue, characterized by: uncontrolled proliferation, impaired differentiation, accumulation of immature hematopoietic cells in the bone marrow and peripheral blood.

Acute leukemia isolated in a separate nosology in the mid-19th century.

Myeloblast was described in 1900 Nageli, he also divided leukemia into myeloid and lymphoid.

Acute monocytic leukemia was described in 1913 by Reshad.

Acute promyelocytic leukemia in 1957 by Hilstad.

Acute leukemia ends fatally without treatment in 100%.

Before the era of chemotherapy, all patients died within 3 months from infections or hemorrhages.

Over 50 years, great success has been achieved in the treatment of leukemia - 5 survival rate - 70%, and in some cases recovery.

Polychemotherapy, bone marrow transplantation and targeted drugs.

**Etiology of leukemia**

*Chromosomal changes are found in approximately 60-70% of patients.*

They arise under the influence of adverse environmental factors: ionizing radiation, electromagnetic fields, chemicals, benzene, and medicines.

Particularly sensitive to the effects of electromagnetic radiation are school-age children whose body has not yet formed: even just a few hours a week spent near a computer are dangerous to their health. In 2001, in the United States published data on the increase in the number of diseases of children with leukemia, which played more than 2 hours a day on a computer and video games.

According to world statistics, 3.3-4.7 out of 100 thousand children develop leukemia under the age of 15 years. About 40-46% of cases occur in children 2-6 years old.

**EPIDEMIOLOGY**

Acute leukemia accounts for 3% of all malignant diseases.

Incidence of 5 cases per 100,000.

75% of cases are diagnosed in adults, the ratio of myeloid and lymphoid in adults is 6: 1.

In children, 80-90% of all leukemia are lymphoid, the average age is about 10 years.

Acute myeloid leukemia disease of the elderly, the average age of 60-65 years.

**Incidence**

In different regions, it ranges from 4 to 5 per 100,000 children up to 15 years old, with a peak at the age of 3.5 - 4 years. Of these, 80-90% - acute lymphoblastic leukemia, 10 - 15% - acute non-lymphoblastic leukemia, 1 - 3% with chronic myeloid leukemia, The remaining unidentified variants of acute leukemia.

**Purpose of the study**

Study of the lifestyle of a family of sick children with acute leukemia using a retrospective analysis method.

**Research objectives**

To reveal the dependence of the prognosis of leukemia on the state of the lifestyle of parents and their material condition.

**MATERIALS AND RESEARCH METHODS**

A specially designed map was compiled - a questionnaire for patients with leukemia.

The questionnaire contains information about the state of health of parents, their social status, the presence of occupational hazards, bad habits. Attention is also paid to the state of health of the mother during pregnancy, the nature of feeding the baby. The material support of the family and a number of other factors are also taken into account.

When filling out the card, the following medical documentation was used — the history of the disease (form No. 3), the child's development history (form No. 112), a dispensary registration card (form No. 3) and an oral survey of mothers was conducted.

**RESEARCH RESULTS**

Under the supervision were 75 children aged 1 to 15 years, located in the Bukhara Regional Children's Medical Multidisciplinary Center from 2012 to 2015.

Children in the urban population were - (18) 24%, children from rural areas - (57) 76%, boys- (45) 60%, girls - (30) 40%.

The age of children from 0 to 2 years old is 12%, from 2 to 7 years old - 53.3%, from 7 to 10 years old - 13.3%, age 10-15 years old 21.3%,

When analyzing the condition of women during pregnancy, they were: children from the first pregnancy - 34 (45.3%), children from the second pregnancy - 7 (9.3%), children from the third pregnancy - 30 (42.8%), children from fourth pregnancy - 4 (5.3%).

Studying the health conditions of parents, we found that mothers of children with acute leukemia were more likely to suffer from varying degrees of anemia - 75 (%) in the first trimester of pregnancy. 35% of them had a threat of termination of pregnancy in various periods. Also, 42% of them in the first trimester had diseases of the upper respiratory tract, CVS, digestive organs, kidneys, etc. Almost 75% of them suffered from toxicosis of the first and second half of pregnancy, only 25% did not suffer from any diseases.

Among complications in childbirth, births of children with asphyxia were more often observed - 17.9%, with birth trauma - 7.7%, mother received treatment during pregnancy with antibiotics and other medicines - 65%.

When analyzing the nature of feeding children under 1 year of age, the following was revealed: they fed the child only breast milk up to 1 year - 12.5%, fed the child breast milk up to 6 months - 25.5%, fed the child with artificial mixtures and cow milk up to 1 year - 46, 6%, were on mixed feeding up to 6 months - 15.4%.

Inquiring about the harmful habits of parents, it was also found that there were no cases of alcohol and smoking abuse among mothers, the number of fathers - smokers was 76.8%, alcohol abuse among fathers was - 12.5%.

Studying the material condition of the parents, children who did not receive polychemotherapy lived in poor housing conditions, which amounted to almost 87% mortality (27) in the first half of the year after acute leukemia.

Under good material and living conditions, when it was possible to obtain PCT according to the Moscow-Berlin scheme, 91% lived up to 1 year or more Remission lasted more than 3 years, in 58.6% (44) of children with OL.

Mortality of children - 31 (41.3%) From birth to 1 year - 5 children died within 2 to 3 months after the detection of leukemia, and 1 of them showed a disease immediately after birth on day 2, which had a fatal outcome during 3 days, the mortality rate for children aged 1-2 years old is 45%, 2-7 years old is 18%, 10-15 years old is 37%.

The most common clinical signs of leukemia in children were fever - 61%, hemorrhage - 48%, bone pain - 24%, lymphadenopathy - 65% (severe lymphadenopathy -

lymph nodes more than 3 cm in 16.5% of children), splenomegaly - 58%, hepatomegaly - 62%, anemia - 80% moderate and severe, CNS damage in the form of neuroleukemia in 3%.

Primary blood tests revealed: anemia - 80%, thrombocytopenia - below 20,000 in  $\mu\text{l}$  - in 28%, from 20 - 100,000 in  $\mu\text{l}$  in 47%, more than 100 thousand in  $\mu\text{l}$  - 25%, white blood cells less than 10,000 in  $\mu\text{l}$  - 51%, 10 - 50 thousand per  $\mu\text{l}$  - 30%, more than 50,000 - 19%, the presence of undifferentiated blast cells - 85%.

### **Conclusion of the results of the study**

1. Mothers of children with leukemia during pregnancy often suffered from anemia, infectious and other diseases.
2. In children who are breast-fed, the incidence of acute leukemia was higher.
3. The mortality rate of children from acute leukemia at 1 year of age and at the age of 2-7 years is higher in relation to other ages.
4. Parents' bad habits of smoking and drinking increase the risk of developing leukemia in young children.
5. Early use of PCT increases the life expectancy of children.

### **CONCLUSION**

Thus, the study made it possible to establish the influence on the occurrence and prognosis of acute leukemia of the following factors: the complicated course of pregnancy of mothers, irrational artificial nutrition of the child, bad habits and material and social situation of parents.

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