CLINICAL AND DIAGNOSTIC EFFECTS OF CHEMICAL ELEMENTS ON BLOOD RHEOLOGY

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Abstract . Anemia is a very common pediatric problem. WHO data show that more than 47% of preschool children and more than 25% of school-age children suffer from anemia. Anemia in children develops for a variety of reasons, and predisposes to this rapid growth of the body. In children, erythropoiesis (the formation of red blood cells) is accelerated, the number of cells and the volume of circulating blood must constantly increase in order to keep up with growth. This process is often disrupted due to age-related immaturity of hematopoiesis.

Keywords. Anemia, Bukhara region, Teenage girls, organism, irregular nutrition, deficiency anemia.

Relevance: Adolescence or puberty is one of the critical periods of ontogeny. By this time, rapid growth and rapid development of the organism increase the demand for the hematopoietic system.

According to Mosyagina E.M., the need for iron in adolescents is 2 times higher than in adults. Under such conditions, incomplete and irregular nutrition or the influence of other adverse factors quickly leads to a decrease in hemoglobin and iron deficiency (2).

Currently, 2 types of iron deficiency are recognized: iron deficiency anemia (ICD) and latent iron deficiency (IRT).

Purpose: To study the clinical semiotics of iron deficiency anemia in adolescent girls living in rural areas of Bukhara region.

Material of the work and methods of investigation: Clinical semiotics of the disease was studied by questionnaire in 9-10 grades. The questionnaire consisted of 36 questions on the clinical semiotics of the disease. Questionnaires were distributed to 270 students from Bukhara, Peshku, Shafirkan and Vobkent districts.

Results: The results of the analysis of questionnaires and peripheral erythron indicators showed anemic syndrome in 144 (60.5%) girls, iron deficiency was registered in 86 (59.7%) girls based on the results of iron metabolism analysis. Of these, YaTT 62 (72.1%), TTK-24 (27.9%). During our studies, physical development was found to be moderate in 64.5% of schoolgirls with YTT, below average in 25%, and above average in 9.6. 60.1% of the TTK observed corresponded to the age of physical development in schoolgirls.

The complete clinical semiotics of YaTT and TTK are given in Table 1.

Clinical semiotics of YTT and TTK in adolescent schoolgirls

Symptoms	ЯТТ (п=62)		ТТК (п=24)		
	n	M+m	n	M+m	p
Headache	16	25,8+3,4	8	33,3+4,2	
Dizziness	15	24,1+3,1	6	25,0+3,8	
Fatigue and rapid fatigue	48	77,4+6,3	20	83,3+4,9	
Feeling bad in a stuffy room	7	11,2+2,8	4	16,5+3,9	
Decreased appetite	10	16,1+3,4	5	20,8+4,2	
Whitening of the skin and mucous membranes (Color)	34	54,8+6,7	17	70,8+7,3	
A change in taste	5	8,1+1,0	7	29,1+4,1	
Dry skin	13	20,9+3,7	8	33,3+3,6	
Hair loss	18	29,0+1,9	7	29,2+2,6	
Koylonixiya	27	43,5+4,2	14	58,3+5,3	
Sighing in physical exertion	25	40,3+3,8	11	45,8+4,2	

It can be seen from the table that all clinical symptoms in school students who were diagnosed with YTT occurred in those with TTK. It can be seen that most of the reported symptoms were also detected in healthy girls at different frequencies, and it was acknowledged that the main symptoms were added.

In TTK, increased taste and odor perception of Pica Chilorotica (liking the smell of kerosene, gasoline, acetone, naphthalene), eating soil, toothpaste, and dry tea occurred 3–6 times more frequently. Examination reveals dryness of the skin, hair and nails, dysphagia, stomatitis, flattening of the tongue, and in some cases a bluish color in the sclera of the eye.

In girls with YTT and TTK, most of the symptoms analyzed were clearly expressed and the main ones were combined. Epithelial symptoms were detected in 39.5% of children in 3-4 cases of YTT, and in 18.4% of children in the group of healthy children. In the group of healthy children (6.5%) were found to be associated with changes in the appearance of the skin nails (20.9% and 33.3%), respectively.

Changes in malnutrition and malnutrition in both forms (21.5% and 16.4%) are more pronounced in the group of healthy children (14.1%).

In children with YTT and TTK, asthenovegetative disorders occur in manifest

vasombinated (combination of 2-3 and more symptoms). In both cases, there is a high incidence of the disease in healthy children. More than 40% of girls (270) reported poor self-esteem in air-conditioned rooms (buses, bathrooms).

When studying these girls individually, it was found that in the classrooms, in the classrooms, in the bathrooms, on the buses, there were cases of short-term fainting, and sometimes (in 10.5% of cases) there was a feeling of self-doubt in the girls for no apparent reason. Researchers have linked the occurrence of fainting in children to the development of paroxysms due to increased sensitivity, and even lower levels of emphysema in people with anxiety.

We focused on the onset, duration, and timing of menstruation in school-age children with iron deficiency. Detected data include: The average age of onset of menarche is 13 years and 6 months. The duration is 5 days in 77.9% of girls, 6-7 days in 21.9% of girls, and the average duration of menstruation is 6-7 days.

The beginning of menstruation in the uterus and uterus

хайзнинг характери	Healthy (n=94)		ЯТТ(n=62)		ТТК(n=24)	
	Abs	%	abs	%	Abs	%
11. The beginning						
13 years old	55	58,5	44	70,9	15	62,5
14 years old	23	24,4	14	22,5	4	16,6
15 years old	8	8,5	5	8	2	83
16 years old	2	2,1	-	-	1	4,1
2. Periodicity						
Every 3 weeks	4	4,2	24	38,7	13	54,1
Every 4 weeks	64	68	37	60	6	25
More than 4 weeks	20	20	1	1,6	3	12,5
3. Menstrual period						
-painful	27	28,7	38	61,2	11	45,8
-Painless	61	64,9	22	35,5	13	54,2
4. Duration						
2-3 days	24	25,5	18	29,1	4	16,7
4-5 days	62	66	38	61,3	5	20,8
6-7 days	2	2,1	4	6,4	15	62,5
5. not menstruating	6	6,4	2	3,2	-	-

The onset period of the menstrual process is 13 years and 6 months, and the menstrual process has been found to be disrupted mainly in YTT and TTK, i.e., the periodicity and duration are disturbed. We believe that menstrual girls who go with a lot of blood loss need iron supplements. Menstrual blood loss, which lasts more than 4 days and is accompanied by clot separation, cannot meet the needs of the body with

micronutrients that come down from food and are absorbed into the body. In such cases it is necessary to take iron supplements for 10 days after each menstruation.

In order to confirm the diagnosis of iron deficiency, 238 schoolgirls were examined by direct selection, of which 94 were healthy, 62 were YTT, and 24 girls were TTK. They determined the total amount of hemoglobin and erythrocytes, hematocrit, reticulocyte formula, the average amount and concentration of hemoglobin in erythrocytes. In order to determine the level of serum starvation, in addition to determining the amount of iron in the blood and the degree of saturation of the transfer, the indicators of the total iron-binding capacity of serum were determined. The latter indicator is in the range of 38 to 68.8 μmol / l in healthy schoolgirls, while the iron saturation rate of transferrin is 17-26%.

Conclusion:

1. Using the questionnaire test-questionnaire helps to quickly and accurately assess the clinical semiotics of iron deficiency in a mass mass.

2. Based on the results of a special questionnaire and red blood cell counts, the clinical features of latent and manifest forms of iron deficiency in adolescent schoolgirls living in rural areas are studied.

3. Objective examinations of peripheral erythron indicators According to the analysis of anemic syndrome and iron metabolism in 60.5% of girls, 59.7% of iron deficiency was noted.

4. Although a constant diet consisting mainly of carbohydrates and fats completely covers the caloric needs, it can lead to iron deficiency anemia in children, adolescents and pregnant women with a particularly high risk of blood loss.

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