



IRON DEFICIENCY ANEMIA IN ELDERLY PATIENTS

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Annotation

Iron deficiency anemia (IDA) is a serious problem for both scientific medicine and practical health care. In a number of regions of Central Asia and, in particular, in Uzbekistan, this is the most common form of anemia among certain population groups - children, adolescents, women of childbearing age. . The aim of this study is to study iron metabolism in elderly patients suffering from iron deficiency anemia to determine the state of adaptive and adaptive reactions in this category of patients. We examined 25 patients with iron deficiency anemia aged 60 to 74 years. The diagnosis of iron deficiency anemia was verified on the basis of a comprehensive study of hemoglobin level, red blood cell count, color index, iron content, ferritin and transferritin in blood serum.

Key words: anemia, iron, old age, ferritin.

Аннотация

Железодефицитная анемия (ЖДА) представляет серьезную проблему как для научной медицины, так и для практического здравоохранения. В ряде регионов Средней Азии и, в частности, в Узбекистане это наиболее распространенная форма анемии среди отдельных групп населения - детей, подростков, женщин детородного возраста. . Целью данного исследования является изучение обмена железа у пожилых больных, страдающих железодефицитной анемией, для определения состояния адаптационных и приспособительных реакций у данной категории больных. Обследовано 25 больных железодефицитной анемией в возрасте от 60 до 74 лет. Диагноз железодефицитной анемии верифицирован на основании комплексного исследования уровня гемоглобина, количества эритроцитов, цветового показателя, содержания железа, ферритина и трансферритина в сыворотке крови.

Ключевые слова: анемия, железо, пожилой возраст, ферритин.





Annotatsiya

Temir tanqisligi anemiyasi ham ilmiy tibbiyot, ham amaliy sog'liqni saqlash uchun jiddiy muammo hisoblanadi. Markaziy Osiyoning bir qator hududlarida, xususan, O'zbekistonda aholining ayrim guruhlari – bolalar, o'smirlar, tug'ish yoshidagi ayollar orasida kamqonlikning eng keng tarqalgan shakli hisoblanadi. . Ushbu tadqiqotning maqsadi o'rganishdir temir tanqisligi kamqonligi bilan og'rigan keksa bemorlarda temir almashinuvi, bemorlarning ushbu toifasida adaptiv va adaptiv reaksiyalar holatini aniqlash. Biz 60 yoshdan 74 yoshgacha bo'lgan temir tanqisligi kamqonligi bilan og'rigan 25 nafar bemorni tekshirdik. Temir tanqisligi kamqonligi tashxisi gemoglobin darajasini, qizil qon tanachalari miqdorini, rang ko'rsatkichini, temir tarkibini, qon zardobidagi ferritin va transferritinni har tomonlama o'rganish asosida tasdiqlandi.

Kalit so'zlar: anemiya, temir, qarilik, ferritin.

The realization of the reference is to be based on the reference to the reference to the reference to the reference to the subtle iron absorption in the gastrointestinal tract caused by chronic blood loss in the soil of various destructive processes in the digester organs [1-6]. The iron deficiency that develops in old age causes certain changes in ferrokinetic indicators, which undoubtedly reflects on the plasma reserve fund of iron in the body. Purpose of the work: The purpose of this study is to study the faces advanced age, suffering from anemia with anemia Gland for elucidating the state of adaptive-adaptive reactions in This category of patients. Material and methods of research. We examined 25 patients with iron deficiency anemia at the age of 60 to 74 years. Diagnosis of iron deficiency Anemia was verified on the basis of a comprehensive study of the level hemoglobin, number of erythrocytes, color index, content of erythrocytes, ferritin and transferritin in blood serum. In order to compare the above parameters of the ferrokinetics, the analogous indicators were studied in 50 young adults with iron deficiency anemia, 25 primary donors of young age, and 26 elderly people without anemia (conditionally healthy) in Bukhara region. The blood of the sick iron deficiency anemia received in the hematology department of the multidisciplinary medical center, primary donors in the CPF, conditionally healthy elderly - in off-site conditions. The total hemoglobin of blood was determined in an automatic laboratory analyzer BC-36000 MINDRAY (CAN). Determination of the concentration of serum iron in automatic biochemical analyzer BS-200 MINDRAY (CUT). Serum total binding capacity (OHB) was determined magnesium carbonate method using the Vital kit "Vektor-Best". Quantitative determination of serum





transferrin immunological methods of radical immunodiffusion and immunoelectrophoresis [6-8]. Quantitative determination of serum ferritin was carried out immunoenzymatic method using Accu-BindElisa kits. Iron transfer coefficient (CT) was calculated using formula: $CT (\%) = (A \div 100) / (B \div 1.37 \times 0.18)$, where A is the concentration of serum iron in micromole / l, B - concentration of serum transferrin in mg / 100 ml

RESULTS AND DISCUSSION

The results of our research (Table 1) have shown that the plasma iron pool in older people is declining, averaging $8.89 \pm 0.55 \mu\text{mol/litre}$. Comparison of this indicator with indicators of the plasma fund of the iron in young age, suffering iron deficiency anemia, made it possible to establish that the elderly iron deficiency anemia with iron deficiency anemia. Here it is appropriate to note that the decrease in the level of the serum gland, as the organism ages, it was found and A. Tommaro et al. Based on the data of our studies, it was established that the elderly reserves of the bone marrow gland and reduced efficiency of turning on the iron in erythroid cells [9-15]. The concentration of immunoreactive transferrin in the blood serum of the examined persons of old age in the presence of concomitant Iron deficiency anemia ($4.47 \pm 0.12 \text{ g/l}$) was 1.6 times higher than the norm. analogous the picture is also established in young people with iron deficiency anemia, which indicates the existence in the above cases of a single compensatory mechanism. At the same time, it is interesting to note that elderly people the level of immunoreactive transferrin in the blood serum significantly lower than in the young ($4.47 \pm 0.12 \text{ l/l}$ and $4.95 \pm 0.11 \text{ l/l}$, respectively). This is explained by the very frequent functional violations and organic lesions of the liver, organ, responsible for biosynthesis of transferrin [4,9,14]. When it comes to the amount of free transferrin in whey blood with aging has discussion aspects, then age-related changes

The incidence of transferrin in iron in this category of persons with iron deficiency Anemia definitely. According to our data, the saturation of transferrin with iron in the older age group with iron deficiency anemia is clearly reduced, amounting to $8.15 \pm 0.66\%$. A comparative analysis of these indicators in people of more young age and Older age indicates that the saturation of transferrin with iron with the same degree of iron deficiency anemia, it is lower in elderly people ages than young people. This is explained in many smaller plasma iron fund for the elderly. The same is the same of the same as a matter of the following. Comparative analysis of the content of ferritin in the blood serum of the elderly and young people with iron deficiency anemia allows you to note what is old with iron deficiency anemia, the level of ferritin is significantly lower than in this case juvenile categories ($11.5 \pm 0.98 \text{ ng/ml}$ and $14.6 \pm 1.01 \text{ ng/ml}$, respectively). In this way, a comprehensive study of the state of iron





metabolism in the elderly age showed that the lower reserves of iron in the body are more depleted than young age people with the same severity of iron deficiency anemia.

Conclusions.

1. The study of indicators of ferrokinetics in conditionally healthy elderly people showed that these parameters are significantly lower than in healthy young people; the latter, apparently, is associated with a decrease with age the formation of transferrin in the liver and impaired absorption of iron in the intestine.
2. Quantitative analysis of transferrin and ferritin in blood serum made it possible to adequately assess the reserve fund of iron in the organization of the elderly with iron deficiency anemia, which turned out to be significantly lower than with iron deficiency anemia.
3. Based on the conducted research, the diagnostic proposal test program for iron deficiency anemia in the elderly, with the help of which you can ensure and control the effectiveness of ferrotherapy.

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