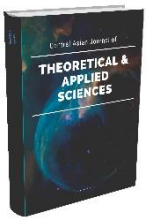

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The Need for New Approaches in Diagnosis Anemic Syndrome in the Elderly

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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. 1083 hospital records of patients with iron deficiency anemia aged 60 to 74 years were examined. 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.*

Keywords: *anemia, iron, old age, ferritin.*

Introduction. Iron deficiency anemia (IDA) is hypochromic microcytic hyporegenerative anemia that occurs due to an absolute decrease in iron resources in the body (as a rule, with chronic blood loss or insufficient iron intake into the body).

Frequency. IDA is observed in 20-25% of the adult population. This is the most common form of anemia. It accounts for about 90% of all anemia. Women have IDA much more often than men. According to various estimates, about 20% of women suffer from IDA [1, 7, 9, and 10].

Etiology. Chronic blood loss is the main cause of IDA.

Uterine: pregnancy, menorrhagia and fibroids. In healthy women, blood loss during menstruation is 40-50 ml. With constant menstrual blood loss of more than 80 ml of blood, iron reserves are gradually depleted, which leads to the development of IDA. Fibroids, even in the absence of menstrual bleeding, can lead to iron deficiency [3, 5].

Gastrointestinal: gastroduodenal erosions and ulcers, hernia of the esophageal orifice of the diaphragm, portal hypertension with varicose veins of the esophagus and rectum, ulcerative colitis, tumors of the stomach and intestines, diverticula [4].

Donation with regular blood donation (5 or more times during the year). Bleeding from the kidneys and urinary tract, especially with hypernephroma, bladder cancer.

Hematological diseases: coagulopathies, thrombocytopenia, thrombocytopathies, Randu–Weber–Osler disease [7].

Vasculitis and collagenosis (especially Goodpasture syndrome).

Alimentary factors: vegetarianism, starvation, malnutrition, monotonous food. Violation of iron absorption in the gastrointestinal tract: complete gastrectomy, resection of the stomach and /or intestines, especially the duodenum, in which the most intensive process of iron absorption occurs (90%), atrophic gastritis, celiac disease [1].

An increase in the body's need for iron: in infants (all types of milk contain very little iron), during pregnancy, in adolescence (with accelerated growth, iron consumption is increased).

Other causes: paroxysmal nocturnal hemoglobinuria; isolated hemosiderosis of the lung; hemodialysis in 50% of cases leads to the development of IDA [11-18].

Results: Among the elderly, anemia is the most common hematological syndrome and occurs, according to various sources, in 10-25% of patients in this age group. In the United States, the annual incidence of anemia in men and women over 65 years of age is 90 and 65 per 1000, respectively, with an increase in the incidence of anemia with increasing age. In most cases (75%), anemia in the elderly is detected during hospitalization for various diseases, while anemic syndrome itself is the cause of hospitalization much less frequently (9%). In order to identify the proportion of anemic conditions (taking into account polydeficient conditions) among the elderly, 1083 inpatient records of elderly patients who were treated for various forms of anemia at the clinic of the Research Institute of Hematology and Blood Transfusion in 1999-2005 were retrospectively analyzed. The age of the examined is 60-74 years. In 615 (57%) examined patients, iron deficiency anemia was diagnosed, in 196 (18%) - vitamin B12 folic deficiency, in 172 (16%) - mixed forms of anemia. In 71 (6.5%) - hemolytic, in 29 (2.7%) - aplastic. The most frequently noted combination of iron deficiency anemia with a deficiency of vitamin B12 - folic acid, mainly (according to the anamnesis) of alimentary origin. Also, 325 elderly people were prospectively examined (the age of the examined was 60-74 years). Of these, 205 are women and 120 are men permanently residing in the Bukhara region of the Republic of Uzbekistan. The content of serum iron in the examined elderly people averaged 18.1±0.69 μmol/l, serum copper averaged 15.7±0.74 μmol/l. The zinc level is 19.9±0.89 μmol/l. In general, in the structure of anemic conditions in the examined elderly men, classical iron deficiency anemia quantitatively prevails, accounting for 33.3% of all forms of anemia, vitamin deficiency anemia due to a combined deficiency of hematopoietic vitamins - B12 and folic acid amounted to 30.8%. Anemia caused by a combined nutritional deficiency of such hematopoietic factors as trace elements (iron, copper, zinc) and vitamins (B12 and folic acid) also makes up a rather high percentage - 28.4%. An examination of older men revealed an interesting fact - the presence of the phenomenon of so-called polydeficiency anemia, in them, i.e. anemia caused by a combined deficiency in the body of all hematopoietic factors, namely iron and other hematopoietic trace elements - copper and zinc, hematopoietic vitamins - B12 and folic acid and protein. This form of anemia in the elderly men we examined was 7.5% of the entire population.

Conclusions: Consequently, with age, especially in senile age, the formation of combined nutritional deficiencies, deficiencies of various hematopoietic factors - microelements, vitamins and protein is characteristic, which obviously requires the development of specific approaches to diagnosis, therapy, and prevention of such forms of anemia.

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