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**A MODERN VIEW ON RESEARCH METHODS AND SOCIAL CAUSES OF ANEMIA DURING
PREGNANCY*****Kamolova F. E.****Kiut-Kimyo International University in Tashkent, Uzbekistan*

ABOUT ARTICLE**Key words:** Anemia, pregnancy, iron deficiency anemia, hemoglobin, gestation.**Received:** 17.03.2024**Accepted:** 22.03.2024**Published:** 27.03.2024**Abstract:** This article presents many methods for studying the causes of anemia in pregnant women and reviews analyzes based on modern technologies. Data from research literature in Russian was processed and analyzed in electronic search systems cyberleninka.ru, eLIBRARY in international databases Scopus for the period 2017-2024.

INTRODUCTION

Anemia is one of the global problems of modern healthcare, in particular obstetrics. Anemia in pregnant women consistently ranks first among extragenital pathologies in pregnant women.

According to WHO, iron deficiency anemia (IDA) affects more than 2 billion people (more than 30% of the population) worldwide, most of them women and children [1-3].

The urgency of improving treatment methods for pregnant women with iron deficiency anemia is due to the increasing incidence of the disease and its adverse effect on the course and outcome of the gestational process.

Iron deficiency anemia in pregnancy is a condition caused by a decrease in iron content in blood serum, bone marrow and depot due to an increase in circulating blood volume and the need for the trace element, a decrease in its deposition, high growth rate of the fetal body, which leads to impaired hemoglobin formation, hemic hypoxia with the subsequent development of secondary metabolic disorders [4].

The prevalence of anemia in developed countries is 8-20%, in underdeveloped countries it reaches 80% [5]. In 90% of cases, anemia in pregnant women is iron deficiency [10].

According to modern data, iron deficiency at the end of the gestational process develops in all pregnant women either in latent or manifest form [8, 9]. This is due to the fact that pregnancy is accompanied by additional iron loss (about 1200 mg) [10].

The Purpose of The Study

Analyze and review the causes of anemia in pregnant women.

METHODS

The diagnosis of anemia in pregnant women is made up of anamnesis, physical examination and clinical and laboratory parameters. Given the appearance of the clinical picture of anemia only in moderate and severe degrees of anemia, the leading role of evaluation of laboratory indicators of iron metabolism and hemogram for early screening of iron deficiency is unambiguous. Screening includes determination of hemoglobin concentration, hematocrit, erythrocyte count, serum ferritin concentration, transferrin, and color index.

The most important indicator of anemia is the hemoglobin level at which anemia should be diagnosed.

According to WHO,

- mild anemia is characterized by a decrease in hemoglobin level from 109 to 90 g / l;
- moderate anemia - 89 to 70 g/l;
- severe anemia - 70 g / l or less.

Serum iron concentration is subject to diurnal fluctuations: it decreases after 12.00 and is highest between 7.00 and 10.00 [11], and therefore serum iron concentration is not pathognomonic of anemia [12].

RESULTS AND DISCUSSION

Studies of certain scientists in the field of obstetrics and gynecology have shown that there are three stages of iron deficiency: pre-latent, latent and manifest. Pre-latent iron deficiency is characterized by a decrease in the reserves of the trace element without a decrease in iron consumption for

erythropoiesis. Latent iron deficiency is observed with a complete depletion of stores of the trace element in the depot, but there are no signs of anemia. Manifest iron deficiency, or IDA, occurs when the hemoglobin iron pool decreases and is manifested by symptoms of anemia and hyposiderosis [13, 14].

Causes of iron deficiency during gestation:

1. Increased body's need for iron.

During pregnancy, a woman's body expends more than 1000 mg of iron:

- About 300 mg is transferred to the fetus;
- 200 mg is required for the development of the placenta;
- 300-500 mg is spent to increase the mass of circulating red blood cells of the pregnant woman herself;
- 150-200 mg - for blood loss in childbirth (1 mg of iron per 2-2.5 ml of blood);
- six months of lactation require an additional 160-250 mg of iron.

Especially increases the need for iron from 16-20 weeks of pregnancy, when the fetus begins medullary hematopoiesis and there is an increase in the mass of circulating blood in the maternal body. In multiple pregnancies, a woman's need for iron increases. With food, the body receives an average of 5 to 15 mg of iron per day, of which no more than 20% is absorbed in the GI tract. So, if the limit of absorption of this trace element from food does not exceed 2-2.5 mg / day (in II-III trimesters, absorption increases to 3-4 mg / day), then with its increased need of iron begins to be extracted from the body's depot. In this case, the body does not compensate for the cost of this trace element for pregnancy and childbirth by the absence of menstruation. Therefore, a woman's need for iron during pregnancy can reach 15-18 mg/day, while outside pregnancy the daily requirement is about 2 mg [15].

2. The presence of a pathological background for the development of IDA in the pre-gravidar period [16]:

- endometriosis;
- uterine fibroids;
- the use of IUD (they increase menstrual blood loss);

- dysfunctional uterine bleeding;
- gynecological diseases accompanied by external or internal bleeding;
- copious and prolonged menstruation, disrupting the existing balance in the body between the intake and excretion of iron;
- hypothyroidism and thyroid dysfunction;
- pathology of the gastrointestinal tract (peptic ulcer of the stomach and duodenum, erosive gastritis, ulcerative colitis, etc.);
- diseases of the kidneys and urinary tract (chronic pyelonephritis, glomerulonephritis, etc.);
- multiple pregnancies and childbirth (more than three) with an interval of less than two years;
- multiple births;
- pregnancy that occurred during lactation;
- frequent abortions and spontaneous termination of pregnancy that preceded this pregnancy;
- extensive foci of chronic infection.

3. Impaired iron transport (the rarest cause of IDA):

- hypotransferrinemia;
- atransferrinemia.

4. Features of the course in the early stages of pregnancy:

- vomiting of pregnant women;
- bleeding.

5. The period of puberty and growth.

The development of anemia in pregnant women is due to an increased need for iron due to the intensive growth of organs and tissues, menarche and is often associated with poor nutrition when trying to lose

weight. Therefore, young first-time mothers should be under the close attention of obstetricians and gynecologists to prevent the development of this complication of pregnancy.

6. Resorption insufficiency of iron.

This type of anemia is caused by a decrease in the iron absorption zone in gastritis, duodenitis, enteritis, gastric resection and extensive areas of the small intestine.

7. Redistributive iron deficiency.

Redistributive iron deficiency develops in the presence of foci of infection, including in the female genital area, during the period of convalescence after infectious diseases, against the background of rapidly growing tumors. Anemia in chronic diseases has characteristic signs. It is always secondary, occurs against the background of a long-term inflammatory process or tumor, the severity of anemia depends on the size of the focus of inflammation or tumor, and is refractory to treatment with iron preparations [5].

CONCLUSION

Thus, timely identification of the cause of anemia contributes to high-quality treatment and improved outcomes for mother and child

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