



ABSTRACT

Iron deficiency anemia in a woman's life cycle and its impact

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According to WHO, iron deficiency anemia is a condition where the body lacks iron, which is proven by signs of iron deficiency in the tissues and insufficient iron reserves in the body, accompanied by a decrease in hemoglobin levels of >2 standard deviations from the reference value in the same population. Iron deficiency anemia is one of the most common micronutrient deficiencies that occurs in a woman's life cycle due to menstruation (blood loss), pregnancy (needs for the mother and fetus), and bleeding during childbirth.

Anemia in pregnancy is confirmed if the hemoglobin level in the 1st and 3rd trimesters is <11 g/dL, in the 2nd trimester <10.5 g/dL and postpartum <10 g/dL. Based on 2018 Riskesdas data, anemia in pregnant women was found to be 48.9%. Iron deficiency anemia can be caused by inadequate nutritional intake, low absorption, and chronic bleeding. Conditions in pregnancy such as multiple pregnancies, gestational diabetes mellitus, and teenage pregnancy are risk factors for anemia.

Symptoms of anemia that can be found are fatigue, headache, difficulty focusing, palpitations, shortness of breath, restless leg syndrome, koilonychia, angular stomatitis, glossitis, hair loss, and paleness.

Iron deficiency anemia can affect various body functions, such as decreased mental and physical performance, increased cardiovascular stress, disruption of enzyme function, thermoregulation, muscular function, neurological function and immune response which causes an increased risk of infection. Maternal anemia is associated with preeclampsia, preterm birth, antepartum hemorrhage, hemorrhage and postpartum infection. Iron deficiency anemia during pregnancy can increase the risk of stunted fetal growth, low birth weight, preterm birth, and suboptimal development of fetal organs including brain development. One of the long-term effects on babies of mothers who experience anemia during pregnancy is impaired language skills, motor movements and social dysfunction. The risk of obesity, diabetes and cardiovascular disease also increases.

Prevention of iron deficiency anemia is by providing education and consuming foods containing iron. Food sources containing iron consist of non-heme iron (vegetables and fruit) and heme iron (poultry, meat, seafood). Heme iron has 2-3x greater absorption than non-heme iron. WHO recommends supplementation during pregnancy up to 3 months postpartum with 60 mg of elemental iron to meet requirements during pregnancy. If a pregnant woman has iron deficiency anemia, she is given oral iron therapy at a dose of 100-200 mg/day, and a hemoglobin examination is evaluated 2-4 weeks after therapy. If a pregnant woman does not respond to oral iron administration or iron deficiency anemia occurs in the third trimester of pregnancy, intravenous iron therapy can be given.

Keywords: anemia, iron deficiency, pregnancy

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