



LETTER TO EDITOR

CONSUMING IRON TABLETS IS NOT ENOUGH FOR PREGNANT WOMAN; A PERSPECTIVE FROM MIDWIFE

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Dear Editor,

Iron is a mineral that is needed by the body that serves to synthesis hemoglobin. Iron requirement during pregnancy as a result of increased maternal blood supply. During pregnancy, the volume of erythrocytes increases by 20-30%. Mothers should consume an additional 700 - 800 mg of iron during pregnancy to be used for hematopoiesis of 500 mg and fetal growth and placenta tissue 250 - 300 mg (da Silva Lopes et al., 2017).

Iron deficiency in the body will lead to anemia that lowers the maximum amount of oxygen that can be carried by the blood (Susanti et al., 2017). WHO defines anemia in pregnancy as a hemoglobin level of fewer than 11 grams/dl and is said to be severe anemia if the hemoglobin level is less than 70 g / dl. Iron deficiency anemia is defined as a hemoglobin level of less than 11gr / dl and at least one iron deficiency criterion (average cell volume, hemoglobin concentration, ferritin serum, protopyrin erythrocyte concentrations, etc.). Iron deficiency results in reduced iron supply to meet the needs of the mother, fetus, and placenta. The risk of premature infant and LBW and bleeding during labor and iron deficiency anemia postpartum will be experienced by pregnant women with anemia (Challa & Amirapu, 2016).

About 30% of the world's population is known to be anemic, especially iron deficiency anemia. Global estimates, 51 million pregnant women or about 41.8% of all pregnant women also experience anemia, mainly due to iron deficiency. Cases of iron deficiency anemia are more prevalent in developing countries, including Indonesia (Challa & Amirapu, 2016) Iron requirement during pregnancy increases 200-300% used for the formation of new cells and tissues. The number of needs that many cannot be fulfilled only through diet. Therefore, iron supplementation needs to be enforced. Every pregnant woman is recommended to consume iron as much as 30 mg per day. This dose will not be fulfilled only through food. Therefore supplements of 30-60 mg, starting at the 12th week of pregnancy are continued until three months postpartum, need to be given daily. The community still considers consuming Fe to be regularly in preparation during pregnancy and childbirth, so even though Fe coverage is high, it is not balanced with the decrease in the incidence of anemia in pregnant women. The pattern of consumption of pregnant women to Fe which is still limited to the importance of drinking and routine also affect the uptake of Fe during pregnancy. (Susanti et al., 2017)

The paradigm that has been circulating in a society that pregnant women need additional food more than before pregnancy. The view must be straightened out; pregnant women do not just get additional food that fills. Food diversity, how to prepare and serve food, adherence to consumption of Fe tablets, and increased iron absorption should also be considered to increase iron absorption during pregnancy (Peña-Rosas, De-Regil, Dowswell, & Viteri, 2012)

Proper iron consumption behavior will affect the levels of hemoglobin during pregnancy. From the literature, the study found six behavior of iron consumption in pregnant women. First Add the amount of food intake. Second Diversity of food intake. Third increase in iron absorption. The four serve the food appropriately. The five regularities of Fe tablet consumption. Last Drink the Fe tablet in the right way Increasing the amount of food intake means that pregnant women with inadequate dietary intake should increase the overall consumption of food giving some important micronutrients so that it simultaneously handles a combination of deficiency problems. Also, the physiological interactions between vitamins and minerals enhance the body's ability to absorb and utilize essential micronutrients (Lowensohn, Stadler, & Naze, 2016).

The diversity of food intake means that pregnant women do require additional nutrients during pregnancy, but not just satiety. Pregnant women should be careful in determining the food to be consumed that contain lots of micronutrients, especially iron. Haemoglobin is composed of heme and globin proteins, so pregnant women should consume

high-protein foods up to more than 150% of the common protein requirement or 45-55 g / day. Also, folic acid, vitamin B12, iron, and zinc are needed for the formation of DNA and new red blood cells (Origlia, Jevitt, Sayn-Wittgenstein, & Cignacco, 2017)

Increasing the absorption of iron means that Under normal conditions (not anemia) the rate of iron absorption of heme-derived from the animal reaches 25%. While the condition of anemia absorption rate more than 35%. Absorption of 1 - 5% absorption from vegetable food sources, so a larger vegetable suber is required, but in reality, this is very difficult to do. Absorption of non-heme iron can be improved. Therefore pregnant women need to know foods that can increase absorption and inhibition of iron absorption (Peña-Rosas et al., 2012)

Properly serving foods means that heme iron tends to be stable at cooking, but long burning and cooking at high temperatures lead to the change of heme iron to non-heme which can affect iron absorption. The results of the WHO study (Mwangi, Prentice, & Verhoef, 2017) showed that pregnant women who consume tablets added blood regularly can reduce the risk of infant death by 20%, and significant results in pregnant women who consume tablets plus blood more than 120 fruit can reduce death to 44%. This study shows the importance of regular consumption of the tablets during pregnancy (Ghembaza & Louinici, 2017)

Pregnant women should receive proper counseling on how to properly add blood tablets, as the absorption of tablets plus blood is affected by reinforcing and inhibiting

factors. Tablets added blood are easily absorbed if the acidic conditions are in the duodenum and jejunum. (Fallah, Pourabbas, Delpisheh, Veisani, & Shadnoush, 2013)

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