Iron-Deficiency Anaemia In Pregnant Women In Developing Countries

Anaemia is the lack of quality hemoglobin in blood caused mainly by the lack of enough Iron in the body. Iron is a very important mineral content contained in foods that aids in the formation of hemoglobin amongst other purposes. Haemoglobin is contained in the Red blood cells. It is worth to note that Iron Deficiency. Anaemia is the most common form of Anaemia the world over according to the World Health Organization (World HealthOrganisation, n.d).

Haemoglobin aids in the transportation of oxygen in the body. Oxygen is very important for the functionality of muscles and body organs. Once Iron supplementation goes below the required levels in the body, the body uses up the stored reserves to produce more hemoglobin. By using the reservoir Irons the body is likely to produce low quality hemoglobin or few hemoglobin. This complete use of the irons leads to the onset of Iron deficient Anaemia. Through studies done over the years, it has been established that newborn babies, children under five, school going children, pregnant women, vegetarians, and athletes are the most susceptible to this condition. The prevalence is higher in developing countries located mainly in Asia and Africa. Africa accounts for 51% of pregnant women with anemia while Asia and East Mediterranean accounts for 75% and 55% of the women affected by the condition respectively (World HealthOrganisation, n.d). IDA can be classified as severe, mild, normal and moderate. In developing countries, it is highly categorized as severe. Iron Deficiency Anaemia is, therefore, a matter of health concern for the governments and health stakeholders in these regions.

So what are the causes of Iron Deficiency Anaemia in pregnant women and children?

Inadequate Iron intake

Lack of Iron in the body is the highest cause of IDA and is the main cause of 50% of the cases reported (World HealthOrganisation, n.d). Iron deficiency is caused by either low intake of iron sufficient foods or high intake of Iron absorption inhibiting foods.

The diet in most developing countries is mainly carbohydrates consisting of rice, maize, meat, and legumes. The foods contain low amounts of Irons or Irons that are very hard to absorb in the body. Tea and coffee are cash crops easily accessible in developing countries, the two are iron inhibiting with a cup of tea accounting to the reduction of Iron intake by 11%.

A study done by the WHO in Bangladesh revealed that pregnant women were feeding on a low-heme iron diet and foods full of phytate and polyphenols which reduced iron absorption in the women. A similar look in Tanzania revealed high intake of cereals and vegetables with low absorption irons.

Blood loss

Another known cause of Iron deficiency Anaemia is loss of blood. In women, this is mainly during menstruation and childbirth. In developing countries, women give birth at close intervals which doesn't give enough time for the body to replenish Iron lost in previous pregnancies. The Iron requirement in women also rises during pregnancy, which creates pressure on available Irons in pregnant women. Blood lost during pregnancy is also one of the areas where iron is lost from the body.

In Nigeria, blood loss due to traditional births was recorded as one of the causes of anemia in pregnant women. Traditional health givers had no proper methods to

reduce blood loss or supplement iron lost during pregnancy and childbirth (Isah A, 2013).

Parasitic infections

Due to the low levels of sanitation worm infections are prevalent in developing countries. Children who crawl and eat from unsensitised sources or uncooked foods are the most affected from this causative (Isah A, 2013). Worms like Luke worms, hookworms and schistosomes are the most common indicators of Iron Deficiency Anaemia. The worms cause a significant amount of blood loss in their hosts leading to iron deficiency.

A world health organization in Nepal found out that as cases of hookworm infection increased so did cases of Anaemia.

Chronic infections and pregnancy

Chronic infections and pregnancy increase the body's requirement for iron. Due to their long periods of infection, the body needs more hemoglobin to transport oxygen to increase the energy requirement to fight the disease for survival of the human carrier. This increased requirement combined with malnutrition increases the chances of contracting Anaemia. In Tanzania, for example, anaemic prevalence of 83% was related to pregnant women with HIV/AIDS. Other diseases like malaria also increase chances of anaemic infections.

Malaria is common in Africa and is the highest killer of mothers and their children. Malaria infections increases destruction of red blood cells increasing chances of anaemia in pregnant women and children.

Effects of Anaemia

On infection, Anaemia affects patients in different ways, they include;

Reduced productivity

The body draws energy from circulation of oxygen throughout the body by the haemoglobin carrying Red blood cells. Through anaemia, the production of these important carriers is reduced, which increases the rate of fatigue reducing the ability of people to work (World HealthOrganisation, n.d). Reduced productivity, in turn increases poverty levels increasing the severity of anaemic infections since the infected cannot be able to acquire balanced dieted foods to increase iron supplementation (Derbyshire, 2010).

In developing countries, where productivity is determined by the physical capability, anaemia reduces the working capacity of the pregnant women. The effects continue even after birth, reducing their role in economic development. It increases the level of dependency in the country which means few working to feed a majority. Anaemia therefore makes least developing countries operate under capacity due to an ailing population.

Heart problems

Loss of iron as a result of blood loss, parasitic infections or unbalanced diet leads to low volumes of oxygen in blood. This makes the heart work harder, trying to pump more blood into the body to compensate for the shortage. With the heart working at a higher capacity than it should, its muscles enlarge leading which predisposes pregnant women and children born of anaemic mothers to the risk of heart problems.

Complications during pregnancy

Research has shown a clear relationship between anaemia and birth complications. Mothers suffering from anaemia have given birth to under-weight children and premature deliveries. Children born of anaemic mothers are also born with low iron levels increasing their chances of suffering from Iron Deficiency Anaemia. Anaemia has been associated with postnatal depression and deaths of many mothers. An approximate 67500 to 111000 mothers die each year from anaemia in developing

countries. In Africa alone, it is responsible for 20% of all maternal deaths (World HealthOrganisation, n.d).

Child development problems

In children, anaemia commonly resulting from parasitic infections and unbalanced diet has been associated with slow growth, low immunity and slow development in cognitive skills. This increases their chances of acquiring infections had they been born with enough iron in their body. (World HealthOrganisation, n.d)

Children need enough iron for brain development. This requirement is high during growth. Having been born of anaemic mums, the iron levels are low and their food supplementation low in iron reducing their full growth.

In conclusion, anaemia is mostly caused by iron deficiency and can be prevented through proper diet, iron supplementation and treating causes of bleeding. Anaemia therefore should be dealt with to increase productivity in developing countries which are the most affected by the condition.

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