

Prevention of Anemia in Pregnant Women after Periodic Deworming with Albendazol and Praziquantel (Review)

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Original Article

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Abstract:

The Aim of this research was to assess the effect of preventive administration of anti-parasitic drug against anemia during pregnancy in Kenyan pregnant women in St. Lesley Clinic in Eldoret, within 10 years

after introducing the strategy of two administration of albendazole and praziquantel during their pregnancy check up in the beginning of 2nd and 3rd trimester.

Introduction

Anaemia is the leading cause of maternal mortality after delivery in Sub-Saharan Africa and is responsible for majority of maternal and neonatal deaths.(1) The Aim of this research was to assess the effect of preventive administration of anti-parasitic drugs against anemia in pregnancy in Kenyan pregnant women in St. Lesley Clinic in Eldoret, within 10 years after introducing the strategy of two administration of albendazole and praziquantel during their pregnancy check up in the beginning of 2nd and 3rd trimester. Several studies have been published on the positive effect of IPT with sulfadoxine-pyrimethamine against malaria related anemia (1,2) but not on PT.

Major Causes of Maternal Anemia in Developing Countries

Malnutrition

Malnutrition is the major cause of anemia both in mothers and children in Sub-Saharan Africa caused by reduced uptake of elements, which are mandatory for *erythropoiesis* (folic acid, iron, cobalt, vitamin B6, B12, etc.). Therefore to combat malnutrition and anemia is one of the millennium development goals and 2030 agenda by WHO.

Dietary customs

Vegetarians are especially common in several South Asia countries (India, etc.) Reduced in-take of meat proteins may cause vitamin B12 and iron mild to severe anemia

especially when combined with malnutrition and malaria. Affordability of proteins is questionable in Sub-Saharan Africa too, especially in countries with famine, such as South Sudan.

Malaria

In Sub-Saharan Africa malaria is the leading cause of both mother and child anemia is due to one or more hemolytic effects.

AIDS and Chronic ID (TBC)

Consumption of elements and blood cells by ARV or other drugs for chronic infections as well as bone marrow suppression during antiretroviral chemotherapy for HIV/AIDS may contribute to anemia. Prophylactic *co-trimoxazole* and AZT in ART may cause severe anemia and thrombocytopenia.

Geohelminth Parasites

Consuming B12 (Hookworm – *A. duodenale*) and proteins (*Ascaris*, *Trichuris*, *Taenia* spp.) infection with *geohelminths* may contribute, especially in malaria endemic countries, to severe anemia. Therefore, an administration 2x in pregnancy during regular check up (2nd and 3rd trimester) combination of albendazole and praziquantel.

Conclusion

Periodic deworming, food programs where needed and anti-parasitics administration decrease significantly anemia in pregnancy.

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