

Global Vaccines & Vaccination Summit & B2B

November 01-02, 2017 | Toronto, Canada

A potent candidate black water fever malaria vaccine in the offing, Ugandan case

Akusa Darlington

Arua Regional Referral Hospital, Uganda

Introduction: Black water fever malaria, an acute hemolytic disease syndrome, associated with *Plasmodium falciparum* infection, occurring only in non-immune children and adults could, be a disorder of the Zinc finger gene and tumor necrosis factor alfa. It is characterized by haemoglobinuria, fever, jaundice and anemia. We now report that their immunity can be boosted with a combination of antihistamine and Zinc Sulphate to the effect of preventing further malaria attack for over a year.

Case History: 120 children aged three months to twelve years, were followed for hemoglobinuria without a known haemoglobinopathy, with symptoms of fever, vomiting, abdominal pain, passage of dark red urine, and loose stools, epistaxis and body weakness, after treatment with chlorpheniramine and zinc sulphate in addition to anti malarials. There was a positive family history of leprosy one case and congenital malformations, ranging from cervico-facial-ano genital sinuses and tags, in 96 cases, polydactyly, in one case, to Einhoms disease, in one case and or dactylitis, in one case. All the 120 had consumed silver fish contaminated with organophosphate poison. Physical examination revealed fever, pallor, jaundice, dehydration, renal angle tenderness, hepatosplenomegaly and congestive cardiac failure in all of them.

Method: Blood and urine samples were taken for examination and abdominal ultrasonography was requested.

Result & Treatment: Full haemogramme showed low haemoglobin, suggestive of severe anaemia, monocytosis, high total white and low red blood cell counts; positive rapid test for *plasmodium falciparum* and unspecified mixed species of *plasmodium*, and random blood glucose of varying degrees of hypoglycaemia. Urinalysis report revealed a positive Haem-test without the presence of Red blood cells. Renal parenchymal disease was detected on Ultrasonography in all of them. Black water fever malaria with severe anaemia and congenital pre-auricular sinus with renal disorder was diagnosed. In addition to general and specific care, oral chlorpheniramine, 0.35 mg/kg/day in three divided doses for five days, and oral Zinkid (zincsulphate), 0.4mg/kg twice daily for 14 days, were administered. They were discharged between November 2012 and April 2013, and 114 of them have not had recurrence of the disease to date with exception of six, four of whom turned up at 8 months of follow up, nine at 9 months, and the other, at 10 months, with Black water Fever Malaria syndrome.

Conclusion: Black water fever Malaria syndrome patients developed ample immunity to the disease to the extent of protecting 95% of them for more than a year against Malaria.

e: shepherd_ad@yahoo.co.uk