Supplementary approach to malaria

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Could a simple vitamin A and zinc supplement help protect young children from malaria? A randomized double blind trial reported in the open access publication, *Nutrition Journal*, would suggest the answer is yes.

Jean-Bosco Ouedraogo of the Institut de Recherche en Sciences de la Santé (IRSS) in Bobo Dioulasso, Burkina Faso, and colleagues explain that vitamin A and zinc play a critical role in the normal function of the immune system, and may even play a synergistic role for reducing the risk of infection including malaria caused by Plasmodium falciparum.

There are approximately 300 to 500 million new cases of malaria each year across the globe, primarily due to P. falciparum.,The vast majority of cases occur in sub-Saharan Africa and lead to the death o f about one million children each year. Emerging drug resistance and ineffective insecticides used in malaria control have hampered efforts to reduce these figures. Moreover, people living in malaria-endemic areas often suffer from malnutrition and deficiencies of micronutrients such as vitamin A and zinc, which have serious health consequences.

In order to understand how reducing micronutrient deficiencies might influence malaria incidence, the researchers undertook a trial with a single dose of 200,000 IU of vitamin A and daily 10 mg of zinc supplementation in children aged 6 to 72 months in the village of Sourkoudougou in Burkina Faso. Half were given placebo. They evaluated the children daily for signs of fever and analyzed blood samples for the presence of the malaria parasite in those children with

fever.

The researchers found a significant effect of vitamin A and zinc supplementation on malaria incidence. "At the end of the study we observed a significant decrease in the prevalence malaria in the supplemented group (34%) compared to the placebo group (3.5%)," they explained. Supplementation also increased the time to onset of malarial symptoms and reduced the frequency of episodes. "Supplementation thus may play a key role in malaria control strategies for children in Africa," they added.

Source: BioMed Central