

Health and development in infants after mefloquine antimalarial treatment during pregnancy

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Early development does not appear to be affected in children born to mothers who were treated with the antimalarial mefloquine (MQ) during pregnancy compared to children of mothers treated with sulfadoxine-pyrimethamine (SP), according to research appearing this week in *PLOS Medicine*. The cohort study, conducted by Clara Menéndez of the Universitat de Barcelona, Spain, and colleagues, followed children born to mothers who were included in a clinical trial that compared intermittent preventative treatment of malaria in pregnancy (IPTp) using either MQ or SP.

The study, conducted in Mozambique, Benin, Gabon, and Tanzania, includes 2,815 infants born to women who received MQ during pregnancy and 1,432 born to mothers who received SP. The children were assessed at 1, 9, and 12 months of age for growth and psychomotor development (language, hearing and social skills, and motor skills such as limb movement and grasping). Malaria, anemia, hospital admissions, and mortality were also monitored to 12 months of age. The researchers found no significant differences in length or weight between the two groups at any timepoint, and health and mortality were similar between the two groups. No significant differences were observed in the psychomotor development milestones at 1 month. While an increased risk of being unable to stand without help, walk without support, or bring food to the mouth was observed at 9 months among the children born to women who received MQ, no significant differences in any psychomotor



development milestones were observed at 12 months. It may be worth further investigation to determine if the differences at 9 months are a true association or a result of multiple testing. Taken as a whole, the findings suggest that IPTp with MQ was not associated with an increased risk of undernutrition, illness, or death among infants compared to IPTp with SP.

Data at 12 months of age was unavailable for 26% of the infants and may limit the accuracy of the findings. However, the authors note that the results "are of particular relevance considering that antimalarial drug combinations containing MQ are currently recommended for malaria treatment in pregnancy, and MQ alone is recommended for prophylaxis in pregnant women traveling to endemic countries."

More information: María Rupérez et al. Mortality, Morbidity, and Developmental Outcomes in Infants Born to Women Who Received Either Mefloquine or Sulfadoxine-Pyrimethamine as Intermittent Preventive Treatment of Malaria in Pregnancy: A Cohort Study, *PLOS Medicine* (2016). DOI: 10.1371/journal.pmed.1001964

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