Safety of ivermectin during pregnancy

Patricia Nicolas and colleagues (January, 2020),[1] in their systematic review on the safety of ivermectin treatment in pregnant women, conclude that ivermectin treatment during pregnancy cannot be considered safe. They propose additional animal toxicology studies and open data repositories of inadvertent exposure during pregnancy as the first step in the further evaluation of ivermectin safety.[1] In an accompanying Comment, Christopher King[2] suggests that a randomised trial to administer ivermectin to pregnant women is nevertheless justified on the basis of available data.

We agree that such a trial should be done, not only because untreated infected pregnant women constitute a parasitic reservoir, but also because treating these pregnant women could be beneficial for their children. In an 18-year follow-up study of about 4000 families in west Africa, maternal *Onchocerca volvulus* infection was associated with a four times increased risk of infection in children. Moreover, children born to mothers infected with *O volvulus* had a higher microfilarial load, suggestive of a priming of the neonate's immune system to the parasite.[3] Children weighing less than 15 kg with high microfilarial loads are currently not eligible for ivermectin treatment and are therefore at risk of developing onchocerciasis-associated epilepsy.[4] Moreover, we have documented the onset of onchocerciasis-associated epilepsy in children as young as 3 years.[5] Taking these new findings into consideration, we believe that a large randomised clinical trial evaluating the safety of ivermectin treatment in pregnant women infected with *O volvulus* and the potential benefits for their children would be ethically acceptable and needs to be done.

We declare no competing interests.

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1 Nicolas P, Maia MF, Bassat Q, et al. Safety of oral ivermectin during pregnancy: a systematic review and meta-analysis. *Lancet Glob Health* 2020; **8:** e92–100.

2 King CL. Is ivermectin safe in pregnancy? *Lancet Glob Health* 2020; **8:** e12–13.

3 Kirch AK, Duerr HP, Boatin B, et al. Impact of parental onchocerciasis and intensity of transmission on development and persistence of *Onchocerca volvulus* infection in offspring: an 18 year follow-up study. *Parasitology* 2003; **127:** 327–35.

4 Chesnais CB, Nana-Djeunga HC, Njamnshi AK, et al. The temporal relationship between onchocerciasis and epilepsy: a population-based cohort study. *Lancet Infect Dis* 2018; **18:** 1278–86.

5 Colebunders R, Abd-Elfarag G, Carter JY, et al. Clinical characteristics of onchocerciasis-associated epilepsy in villages in Maridi County, Republic of South Sudan. *Seizure* 2018; **62:** 108–15.