Moxidectin versus ivermectin for strongyloidiasis control

In *The Lancet Infectious Diseases*, Viviane Sprecher and colleagues[1] reported a non-inferiority clinical trial to investigate the efficacy and safety of moxidectin compared with ivermectin against *Strongyloides stercoralis*. This trial provides invaluable information on the use of moxidectin in strongyloidiasis therapy and sets the basis for the future incorporation of moxidectin in *S stercoralis* control programmes. However, some aspects of this study concerning the extensive use of moxidectin in preventive chemotherapy as an alternative to ivermectin deserve discussion.

Sprecher and colleagues suggested that moxidectin has the potential to be effective against ivermectin-resistant strains. Previous experience in veterinary medicine entails a credible risk for the development of moxidectin or ivermectin resistance in *S stercoralis*.[2] In Sprecher's work, although the non-inferiority of moxidectin was apparent in the Laotian group, it was less evident in the Cambodian group and ivermectin was highly effective in both locations. Reasons that could drive the site-dependent variability in efficacy include differences in the diagnostic performance (eg, sample processing), the baseline intensity of infection, or the proportion of hookworm co-infections. However, the authors suggested that the efficacy of moxidectin could be also variable for different strains of the parasite. These results indirectly suggest that moxidectin could contribute to the selection of resistance strains of *S stercoralis*.

According to the authors, one of the key advantages of moxidectin over ivermectin is that moxidectin is administered as a fixed dose, whereas ivermectin dosage is weight-dependent. During the past decade, new substantial evidence has shown that higher doses of ivermectin than the standard dose are safe. For example, the good safety profile of three consecutive daily doses of 600 µg/kg of ivermectin was shown in a clinical trial.[3] Furthermore, the evidence in the literature on safety of ivermectin doses of more than 400 µg/kg was thoroughly evaluated in a systematic review and meta-analysis, with good tolerability.[4] This evidence suggests that ivermectin could be administered at a fixed dose without safety concerns, thus contributing to its implementation in preventive chemotherapy for strongyloidiasis.

Finally, the use of ivermectin in preventive chemotherapy for *S stercoralis* allows its integration with other control strategies, particularly for soil-transmitted helminths, for which the efficacy of the combination of moxidectin and albendazole was inferior to ivermectin and albendazole.[5] Shared logistics, planning and training, and co-administration of drugs are key components of the integration of control programmes that offer substantial programmatic benefits. In addition, there are two generic ivermectin products that have been pre-qualified by WHO, making access to the drug easy and affordable.

We declare no competing interests.

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