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Abstract:

Various isolates of S. mansoni, originally showed marked diminished susceptibility to PZQ, were used in this work. These isolates were taken from patients not cured after two or three doses of the drug. They were passed in experimental mice and treated with sub-curative doses of PZQ to determine the effect of drug pressure on the offspring of these isolates. Upon treatment of the second generation of these isolates with curative doses of PZQ, they showed significant less response to the drug in terms of both the drug efficacy (percent of worm reduction), and the ED50 (the effective dose that kills 50% of worms). Also, stability test was performed on some S. mansoni isolates. This means repeated treatment of unsusceptible isolates that have been passed for several passages in the lab. and results compared to that of a control susceptible isolate (originally taken from a patient cured after a single dose of PZQ). The results showed that repeated passage of S. mansoni isolates in the lab. does not render them more susceptible to PZQ. Indeed, these resistant isolates showed less susceptibility to the drug than before, or at least they retain their original level of insusceptibility to PZQ.

Keywords:

Praziquantel, drug pressure, stability test

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