

# Bioassay of two pesticides on *Bulinus truncatus* snails with emphasis on some biological and histological parameters

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## Abstract

The present work was carried out to evaluate the molluscicidal activity of two pesticides (Chlorpyrifos and Profenophos) against *Bulinus truncatus* snails. Also, the effect of these pesticides on the survival rate, egg production, growth rate and hermaphrodite gland of *B. truncatus* snails was carried out. In addition, the effect of these pesticides on the infection of *B. truncatus* with *Schistosoma haematobium* as well as on free living stages of *S. haematobium* (miracidia and cercariae) was studied. Exposure of *B. truncatus* to these pesticides reduced ( $P < 0.001$ ) their survival rate, egg production and growth rate. This was confirmed by histological examination that showed a severe damage in the hermaphrodite gland cells of treated snails. The results obtained also showed that infection of *B. truncatus* with *S. haematobium* miracidia was greatly reduced by exposure to  $LC_{25}$  of these pesticides and also, the total number of shedding cercariae per snail and the period of cercarial shedding were decreased. The mortality rates of miracidia and cercariae were elevated gradually by increasing the concentration of the testes pesticides. It is concluded that Chlorpyrifos and Profenophos may be helpful in schistosomiasis control as they interfere with the snails' biology and their production of the infective stage (cercariae).

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