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Title	:	The anthelmintic efficacy of natural plant cysteine proteinases against Hymenolepis microstoma in vivo
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Abstract	:	Little is known about the efficacy of cysteine proteinases (CP) as anthelmintics for cestode infections in vivo. Hymenolepis microstoma is a natural parasite of house mice, and provides a convenient model system for the assessment of novel drugs for anthelmintic activity against cestodes. The experiments described in this paper indicate that treatment of H. microstoma infections in mice with the supernatant of papaya latex (PLS), containing active cysteine proteinases, is only minimally efficacious. The statistically significant effects seen on worm burden and biomass showed little evidence of dose dependency, were temporary and the role of cysteine proteinases as the active principles in PLS was not confirmed by specific inhibition with E-64. Worm fecundity was not affected by treatment at the doses used. We conclude also that this in vivo host-parasite system is not sensitive enough to be used reliably for the detection of cestocidal activity of compounds being screened as potential, novel anthelmintics.
Subject	:	anthelmintic agent; cysteine proteinase; animal experiment; animal model; anthelmintic activity; Article; autopsy; biomass; cestodiasis; controlled study; cysticercoid; enzyme isolation; feces analysis; hymenolepiasis; Hymenolepis; Hymenolepis microstoma; Hymenolepis microstoma infection; Hymenolepis microstoma infection; in vitro study; in vivo study; mouse; nonhuman; papaya; parasite load; scanning electron microscopy; stocking density; Carica papaya; Cestoda; Mus; Mus musculus; Rodentolepis microstoma
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