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Abstract: Nagwa Eid Ahmed, Lubna, M. El-Akabawy, Ramadan M.Y. and Radwan, A.M.M. Dept of Parasitology, Fac. Vet. Med. Benha University Necropsy of 65 donkeys in abattoir of Fac. of Vet. Med. Moshtohor and of Giza Zoo during the period from Feb. 2007 to Jan. 2008 revealed the presence of 22 helminthes with infection rate (98.45%). The collected worms were Fasciola hepatica, Anoplocephala perfoliata, Hydatid cyst, Parascaris equorum, large Strongylids, small Strongylids, Habronema muscae, H. megastoma, H. microstoma, Setaria equina, Oxyuris equi. Large Strongylids in the present study were identified as Strongylus vulgaris, Strongylus edentatus and Triodontophorus serratus, while small Strongylids were Cylicodontophorus mettami, Cylicostaphanus longibursatus, Cylicostaphanus goldi, Cylicocyclus auriculatus, Cylicocyclus brevicapsulatus, Cylicocyclus insignis, Cylicocyclus labratus, Cyathostomum labiatum, Cyathostomum tetracanthum, Cyathostomum coronatum and Cyathostomum pateratum. All infected donkeys by Fasciola hepatica, hydatid cyst, Parascaris equorum, Setaria equina and Oxyuris equi showed low parasite burden (1-100 worm/animal). Anoplocephala perfoliata in 60% of infected donkeys of low parasites burden per animals, also 61.11%, 75% and 73.33% of infected donkeys by large Strongylids, small Strongylids and Habronema spp. were found in moderate worm burden (100-500 worm/animal), respectively. While 86.21% of infected donkeys by Gastrophilus spp. larvae had low burden per animal. Adult ages of autopsied donkeys harbored most of detected parasites except for Habronema spp. which found in older ages. The present data revealed that male donkeys were more susceptible to infection with Fasciola hepatica than females whenever females were more susceptible to hydatid cyst, small Strongylids, Habronema spp., Oxyuris equi and Gastrophilus spp. infection.

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Abstract The present study aimed to investigate the in vivo effect of albendazole, ivermectin and UV irradiation on subsequent embryonation and infectivity of Toxocara canis eggs. For this propose, nine naturally infected puppies with Toxocara canis of two months old from the same environmental condition were allocated into three equal groups in separate cages. Group I was received albendazole orally at a dose of 100 mg/kg b.w.; group II was s/c injected with ivermectin at a dose of 0.3mg/kg. Group III was kept without treatment as control. Faecal samples were collected 3 times daily for 7 days post-treatment and the expelled T. canis worms were collected. At 7th day post-treatment, necropsy of all puppies was carried out and the adult T. canis worms were collected from their intestine, coecum and colon. The collected female worms from puppies groups I and II were dissected for preparation of eggs for embryonation. Eggs from worms of the third group (control group) were divided into 3 groups; one group (subgroup III a) was exposed to UV irradiation for 30 minutes before incubation, while the other two subgroups (subgroup IIIb & subgroup IIIc) were incubated till embryonation. After embryonation, (subgroup III b) was exposed to irradiation for 30 minutes while the other group (subgroup IIIc) was kept without irradiation as a control non treated and non irradiated group. Embryonation was evaluated micro-scopically at 20th day. The infectivity of embryonated T. canis eggs was tested by mouse. The present data showed a rapid expulsion of worms in ivermectin treated puppies (48-120 hr. post- treatment) compared to (48-160 hr post-treatment) in puppies treated by albendazole. The lowest percentage of embryonation (35%) was recorded in albendazole treated group followed by (42%) in irradiated fertilized eggs (subgroup IIIa) as 65% and 58% of eggs cultures respectively were arrested at one cell stage, irregular cell division and a typical blastomeres and gastrulae. Normal embryonation was recorded in (subgroups III b, c) and ivermectin treated groups. Comparatively lower mortalities were recorded in mice group inoculated with irradiated eggs containing second larval stage (subgroup III b). Lower number of larvae was detected from the liver of mice groups inoculated with irradiated larvae. Stained tissue section slides revealed that 20-25 cross section of encapsulated T. canis larvae in mice belonged to group IV at 80th day post inoculation compared to 2-3 cross section of T. canis larvae in mice belonged to other mice groups. It was concluded that albendazole and UV irradiation showed an ovicidal effect against T. canis eggs and consequently reduce the occurrence of infective eggs in the environment. UV irradiation of embryonated eggs resulted in lower infectivity and mortality in inoculated mice compared to other groups. Key words : Toxocara canis, embryonation, infectivity, treatment, irradiation.

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