

Parasitic zoonoses in Sri Lanka: an update

Both predicted and unexpected infections are being reported

Since the last publications on parasitic zoonoses in Sri Lanka (1) several cases of such infections that had been predicted have been published. It is the purpose of this review to summarise the new reports and to add newer information on this topic.

Protozoa

Several cases of locally transmitted cutaneous leishmaniasis have been recorded (2,3) and recently reviewed (4). No other new infections have been reported but a case of infection with the coccidian *Cyclospora* was seen in a foreign visitor about two years back. It is possible that cases of *Cyclospora* are missed as measurements of oocysts and sporulation are not routinely done.

Cestodes

Since 1993 (1) several cases of sparganosis caused probably by *Spirometra* sp. have been observed. (5,6 and Samarasinghe S, personal communication). *Bertiella studeri*, an anoplocephalid tapeworm, is now recognised as a parasite acquired in areas where monkey reservoir hosts abound (7). As summarised by the present author (8) this cestode (Weerasooriya MV, Edirisinghe JS, personal communications), *Taenia solium*, *Hymenolepis diminuta* (Weerasooriya MV, personal communication) and hydatid cysts of *Echinococcus granulosus* are seen by clinicians and parasitologists, but not reported. An unusual infection, probably a spurious one, of *Taenia taeniaeformis* of the cat has recently been reported in a child (9).

Nematodes

Although a few cases of infection have been reported they are based only on serological tests and parasite larvae have not been seen in visceral larva migrans cases in Sri Lanka. A recent case of a child with hepatomegaly, high eosinophilia, raised ESR, and serologically positive for *T canis* was most probably an example of this infection; but serial sections of liver biopsies failed to reveal any parasite (Weerasooriya MV, personal communication). In a field study of children in Hindagala, Kandy, a high infection rate has been observed, using a *T canis* specific ELISA technique (D Iddawela, personal communication).

A case of human infection of the vitreous of the eye caused by the cat hookworm, probably *Ancylostoma tubaeforme*, leading to loss of vision was also reported (10). The dog filarial worm *Dirofilaria repens* is now frequently seen in Sri Lanka and over 170 cases are on record (11, 12, 13, 14, 15, 16). It is interesting to note that corresponding to population and surface area Sri Lanka has more cases than Italy which has a record of many more cases (16). A filarial worm of animal origin that has been identified as *Brugia ceylonensis* of cats has been added to this list of zoonoses (17).

Parastrongylus (Angiostrongylus), a rodent lung-worm found mostly in bandicoots in Sri Lanka, was predicted to be a possible zoonotic parasite (1). It has now been reported on three occasions (18, 19, 20). These have all been ocular infections, and it is of interest that of a total

of 16 authentic ocular infections worldwide three have been from Sri Lanka.

Quite unexpectedly, two cases of a nematode infection with *Gnathostoma* sp, probably *G. spinigerum*, have been recorded (S Samarasinghe, BJC Perera and Ratnasena BGN, personal communication). This is surprising in a country like Sri Lanka where uncooked or undercooked invertebrate or vertebrate intermediate hosts or paratenic hosts are rarely, if ever, eaten. However, in both cases there was a suggestion that undercooked freshwater fish have been consumed.

It is necessary to emphasise that some of these infections may not necessarily be acquired by eating raw or undercooked intermediate or paratenic hosts but rather by contamination of food with the infective larval stages of these parasites in uncooked vegetables eg. lettuce and *Centella* ("Gotukola") as suggested for *Parastrongylus* infections (18,19,20). In the case of *Gnathostoma*, ingestion of the infective larva in the crustacean *Cyclops* is also a possible cause of infection.

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