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The intermediate host of *Angiostrongylus costaricensis* in Honduras

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Resumen: Se colectaron babosas (Veronicellidae) en el Departamento de Morazán, Honduras. La digestión con jugo gástrico artificial mostró la presencia de larvas de tercer estadio morfológicamente semejantes a *Angiostrongylus costaricensis.* Se les inoculó en ratas *(Sigmodon hispidus)* con sonda gástrica. Cincuenta días después se obtuvieron los nemátodos adultos y se confirmó el diagnóstico. A pesar de que se han encontrado casos humanos de angiostrongiliasis abdominal en Honduras, nunca se había encontrado el parásito en su huésped intermediario.

Abdominal angiostrongyliasis, caused by *Angiostrongylus costaricensis* Morera and Céspedes, 1971 [= *Morerastrongylus costaricensis* (Chabaud, 1972] was found for the first time in Costa Rica. Subsequently, the disease was reported from Honduras, but neither the definitive nor the intermediate host had been found naturally infected.

In Honduras, as well as in other Central America countries, veronicellid slugs are agricultural pests of great economic importance. Among others, these molluscs feed on small bean plants, sometimes causing complete destruction of this important part of the Central American diet; thus veronicellid slugs have both economic and public health importance. Slugs were collected in bean (*Phaseolus vulgaris*) plantations in the Morazán Department, by personnel of the Project 'Integrated Pest Management in Honduras", Pan American Agricultural School. This material was intended to carry out research on the chemical and biological control of this plague. However, a small sample of these veronicellids was examined by digesting its tissues with a solution that contains pepsin and hidrochloric acid. Since third-stage larvae similar to those of *Angiostrongylus costaricensis* were found, 26 live slugs were brought to Costa Rica for further study. Here, the molluscs were digested with the same solution and placed in Baermann funnels for concentration. After sedimentation, the larvae obtained were inoculated by stomach tube into 2-month-old laboratory-bred cotton rats (*Sigmodon hispidus*). Fifty days later, the rats were sacrificed and adult worms were recovered and fixed in 70% alcohol with 5% glycerin.

Nine of the slugs were found to bear third-stage metastrogyle larvae, morphologicaly similar to *A. costaricensis*. The rats infected with these larvae began to shed first-stage larvae 24 to 25 days after inoculation. Adult nematodes were recovered from the ileocecocolic brances of the posterior mesenteric artery of the rats, 50 days after infection. The morphological features of the worms (Morera 1973) corroborated that they were *A. costaricensis*.

Human cases of abdominal angiostrongyliasis have been found in most countries of the American Continent (Morera 1987) and the first human African case of the disease has been recently reported (Baird *et al.* 1987), in addition, marmosets (*Saguinus mystax*) from the Peruvian Amazon basin (Sly *et al.* 1982), and one carnivore (the coati mundi *Nasua narica*) from Costa Rica (Monge *et al.* 1978) have been also found naturally infected.

The first human case of this parasitic disease recognized outside Costa Rica, was found in Honduras (Sierra and Morera 1972). Eleven years later, a new series of cases was reported by Zúñiga *et al.* (1983). However, neither the definitive nor the intermediate host were previously found naturally infected.

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