

## Gnathostomiasis.

Shawn Kruger\*

Editorial Office, Journal of Parasitic Diseases: Diagnosis and Therapy, London, United Kingdom

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### Editorial

Gnathostomiasis is a nematode illness caused by the worm *Gnathostoma spinigerum* that was once only found in Southeast Asia, notably Thailand and Japan, but has now spread to Central and South America and Mexico as a result of raw fish consumption in ceviche. Infection is obtained by consuming uncooked food contaminated with the larval third stage, which can be found in fish, shrimp, crab, crayfish, frog, or chicken. In endemic regions, cats and dogs serve as significant reservoirs. Because the larva cannot grow into the adult form in humans, it wanders through host tissues, generating an inflammatory response. Clinical symptoms include the skin and subcutaneous tissues, the eye, the viscera, and, in rare cases, the central nervous system. The most frequent skin symptoms are migratory subcutaneous swellings that last several days or, less commonly, cutaneous larva migrans. The latter is a pruritic, linear, serpiginous rash that develops inside the dermis and is less likely to be seen on the foot than dog or cat hookworm acquired *via* beach walking. Gnathostomiasis has a varied incubation time, although symptoms generally appear within a few months of consuming infected food. Depending on the geographic history, the primary differential diagnoses for gnathostomiasis include loiasis (*Loa loa*), fascioliasis, myiasis, and paragonimiasis, as well as strongyloidiasis and cutaneous larva migrans from dog or cat hookworms in the case of dermal involvement.

Eosinophilic myeloencephalitis is caused by gnathostomiasis, which is most often caused by the worm *Gnathostoma spinigerum*. The majority of incidents are linked to eating raw or undercooked fish, frogs, snakes, chickens, or ducks. In Southeast Asia, notably Thailand and Japan, the illness is well-established, and in Peru, Ecuador, and Mexico, it is growing as a public health issue. It might take several months from the

moment contaminated food is consumed to the beginning of symptoms. Infections are classified as cutaneous, visceral, or Central Nervous System (CNS) infections. Intermittent bouts of cutaneous larva migrans (creeping eruption) with localised pain and pruritus are common symptoms. For several years, these lesions may reoccur. If larvae move to deep tissues, they cause visceral discomfort. Gnathostomiasis is a disease that is difficult to diagnose. Because the bacterium may survive for years in human tissues, even remote exposure could be a valuable historical evidence. Eosinophilic pleocytosis (range 15%-90%) with increased protein and normal glucose levels is frequently seen in the CSF. Hemorrhage is discovered on CT scans. Angiostrongylosis is less noticeable than peripheral blood eosinophilia. Although ELISA and Western blot have been developed, they are difficult to get outside of endemic regions and have a lot of crossreactivity with other parasites. The recovery of the larva confirms the diagnosis chicken. Gnathostomiasis is a parasitic infection that predominantly affects the subcutaneous tissues. The illness can cause CNS involvement, which is an uncommon but serious consequence. *Gnathostoma spinigerum* has definitive hosts in dogs and cats, first intermediate hosts in Cyclops water fleas, and second intermediate hosts in a variety of animal species. Humans become infected by eating raw or undercooked fish or chicken that has been contaminated with this nematode's larvae.

### \*Correspondence to:

Shawn Kruger  
Editorial Office  
Journal of Parasitic Diseases: Diagnosis and Therapy  
London  
United Kingdom  
E-mail: [i\\_kruger51@gmail.com](mailto:i_kruger51@gmail.com)