

SEATO MEDICAL RESEARCH STUDIES ON GNATHOSTOMIASIS IN THAILAND

Coordinator: Professor Svasti Daengsvang, Med.D., Dr. P.H.
Special Consultant to the Director

Principal Investigator: Professor Svasti Daengsvang, Med.D., Dr. P.H.

Assistant Investigators: Boonsiri Sermswatsri
Pichit Youngyi, B.Sc.
Dhawe Guname, B.Sc.

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GENERAL INFORMATION

Human and animal gnathostomiasis caused by Gnathostoma spinigerum is highly endemic in Thailand and it seems to be gradually increasing. Recently fatal human cases with CNS damage due to a single adult worm, as well as eosinophilic meningo—encephalitis cases suspected of being caused by the gnathostome were reported in this country. After World War II many hundreds of human gnathostomiasis cases were found in the Prefectures of Kyushu, Hanshu and Shikoku and the disease in man seems to be extending gradually in this country. Human gnathostomiasis has been reported and occasionally is still reported from many countries in Asia due to infection with adults and larvae of G. spinigerum. However, one case each from Japan and Canton and probably two cases from India were infected with G. hispidum. Some aspects of the epidemiology and diagnosis of the disease in man, including the pathological changes of the infected organs, individual and community preventive measures, and chemotherapy of the disease remained still to be fully studied.

Recently, domestic pigs slaughtered at slaughter houses in different areas of Thailand were found to harbor G. hispidum and G. doloresi in their stomachs. Additional study is therefore being initiated concerning the possibility that higher vertebrates or man may be infected with these worms. The transmission of these species to the definitive host (pig) was reported by Golovin (1956) in Russia to be experimentally possible either by drinking water contaminated with infected cyclops or by eating reservoir hosts (fish, amphibians, reptiles etc.). Moreover G. vietnamicum, first discovered and described as a new species of Gnathostoma from the kidneys of otters in South Vietnam in 1965 was last year (January 1968) discovered by us in this country from the kidneys, ureters and bladders of river otters obtained from southern Thailand. The worm is now being studied in regard to its significant identification characters, life cycle, and development as well as the pathological changes of the infected organs. In this connection it is also of great interest to know that in 1948 Efimov in Russia reported the occurrence of Gnathostoma spinigerum in Lutreola lutreola (river otter).