ABSTRACT

THE STUDY ON THE CONTAMINATION OF METACECARIAE OF LIVER FLUKE IN FERMENTED FISH

Fermented fish is an important food in Northeast Thailan. It was hypothesized to be the food which spreads the metacercariae of Opisthorchis viverrini. The objectives of the study were to find the rate of contamination of metacercariae in fermented fish in villages in which there is an epidemic of Opisthorchiasis, the composition of the fermented fish, the survivalship of metacercaria and the methods of preparing fish which may not be well cooked and be infected by metacercariae of

It was found that in the three villages which were studied in Prayoon district of Khon Kaen province, where there is a prevalence of O.viverrini of 30-40%, that there is a 37.9% rate of contamination of O.viverrini from the 132 samples of fermented fish However, the metacercariae all degenerated and died. They cannot infect humans anymore, even if the fish is fermented for only 24 hours. Fermented fish is usually prepared from many kinds of pla khao (*Cyclocheilicthys sp*). i.e., (in Thai) pla khao, pla khao suit, pla khao-na, pla khao-noan, pla khao-mon, pla-sew, pla-kradi, pla-moa, pla-chon (snake-head fish), pla-ka, pla-tong, pla-duk, pla-nin, small shrimps and crabs. Fermented fish is usually made in a 3:1 ratio of fish to salt. Rice bran and ground roasted rice can also be mixed. One who eats raw fermented fish

or the liquid from the fermented fish may not have a risk of being infected by O.viverrini, even though it fermented for only 1-2 days. But the raw fish may be contaminated by bacteria, aflatoxin, and nitrosamine instead. There is also transaminase in raw fish. It has been found that people may not cook fish adequately. Other kinds of raw fish preparation, like koy pla, som pla, mum pla and pla jom, which are prepared from pla khao, carry a high risk of O.viverini infection.

One major problem is that traditional Thai methods for food preparation may indicate that a food has been "cooked" though it has not been heated uniformely to a certain minimum temperature. Therefore, effective means must be found to induce villagers to prepare their fish adequately.