

Safe Food, Fair Food for Cambodia

Prevalence of the zoonotic diseases cysticercosis and trichinellosis among pigs in rural Cambodia

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Introduction

Cysticercosis and trichinellosis are important parasitic zoonoses that are expected to be endemic among pigs in Southeast Asia. Both can lead to serious illnesses in humans. In Cambodia, the majority of pigs are raised extensively, a potential risk factor for both diseases. Pork is the most important source of meat and risky consumption habits may exist. While sporadic outbreaks in humans have been reported, data in pigs are scarce.

Objective: Assess the seroprevalence of porcine cysticercosis and trichinellosis in rural Cambodia, and identify possible risk factors for both diseases.

Methods

This study was conducted in 4 provinces in north-eastern Cambodia (Kampong Thom, Preah Vihear, Ratanakiri and Stung Treng)

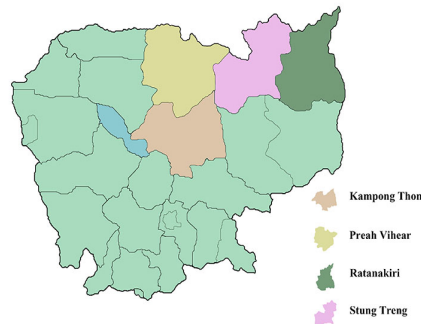
242 blood samples were collected from 139 households (less than 10 pigs) and one household member interviewed (pig raising, food safety and consumption habit).

Serum samples were analysed with ELISA for presence of antigens for cysticercosis or antibodies towards trichinellosis.

Positivity for porcine cysticercosis was 11.2% and varied by province being highest in Preah Vihear with about 1 in 3 pigs positive. Positivity for trichinellosis was lower with 2.5%.

Knowledge on cysticercosis was moderate but poor for trichinellosis.

Men were more aware of cysticercosis, and consuming undercooked pork to a greater extent.



Credit: R. Söderberg

Results

Both parasitic zoonoses are endemic in the surveyed areas with higher prevalence's for cysticercosis. Poor pig management and access to human feces increased the risk for porcine cysticercosis while feeding food waste those for trichinellosis.



Credit: R. Chea

Recommendations

The occurrence of both zoonoses, observed risk factors aligned with limited knowledge of interviewed household members indicates the need for targeted intervention in particular in the high-risk areas. This may include promoting deworming of pigs, capacity building in meat inspection and awareness campaigns in consumers.

Further studies in the rest of Cambodia would be of interest to get a better understanding of the distribution of both diseases.

Research gaps

As the specificity of commercially available cysticercosis ELISA tests is limited (cross-reactivity with other *taenia* spp.) future research for more specific test is suggested.