TOXOPLASMOSIS AND NEOSPOROSIS AMONG BEEF CATTLE SLAUGHTERED FOR FOOD IN WESTERN THAILAND

Jitbanjong Wiengcharoen¹, Chowalit Nakhthong², Jumlong Mitchaothai³, Ruenruthai Udonson⁴ and Yaowalark Sukthana⁴

¹Department of Parasitology, ³Department of Clinic for Swines, Faculty of Veterinary Medicine, Mahanakorn University of Technology, Bangkok; ²Faculty of Veterinary Sciences, Mahidol University, Nakhon Pathom; ⁴Department of Protozoology, Faculty of Tropical Medicine, Mahidol University, Bangkok, Thailand

Abstract. Beef is a main type of meat consumed by Thais. The prevalences of anti-Toxoplasma gondii and anti-Neospora caninum antibodies were investigated among beef cattle slaughtered for food in western Thailand. A total of 389 blood samples obtained from beef cattle from 24 herds were collected at 3 slaughterhouses in 3 western provinces of Thailand: Kanchanaburi, Ratchaburi and Nakhon Pathom. An indirect immunofluorescent antibody test (IFAT) was performed using cut-off values of 1:128 for T. gondii and 1:200 for N. caninum. The antibodies to T. gondii were found in 100 samples (25.7%) and antibodies to N. caninum were found in 23 samples (5.9%) a significant difference (p<0.001) in prevalences, indicating the cattle tested had a greater exposure to T. gondii than N. caninum, and they should be regarded as a potential source of T. gondii infection to humans. The low prevalence of neosporosis in this study is still a risk for morbidity among cattle, including abortions. This is the first study in Thailand finding both T. gondii and N. caninum antibodies among beef cattle.

Keywords: Neospora caninum, Toxoplasma gondii, beef cattle, slaughter, Thailand

Correspondence: Jitbanjong Wiengcharoen, Department of Parasitology, Faculty of Veterinary Medicine, Mahanakorn University of Technology, Bangkok 10530, Thailand.
Tel: +66 (0) 2988 3655 ext 5200; Fax: +66 (0) 2988 3655 ext 5201
E-mail: jitbanjo@yahoo.com.