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Health and Hygiene

DIAGNOSIS OF TOXOPLASMIC LYMPHADENOPATHY. A COMPARISON OF SEROLOGY AND HISTOLOGY

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Toxoplasma gondii is an intracellular opportunistic protozoan and infection caused by this parasite both in humans and in animals is widespread in most countries. Felines, being the definitive hosts, pass the oocysts in their faeces and the intermediate hosts can harbor infective tissue cysts. Humans acquire the infection by ingesting food and water contaminated with oocysts, and tissue cysts in undercooked meat. In healthy humans, *T. gondii* infection is generally asymptomatic or mild. However, serious disease can occur in congenitally infected and immunocompromised patients. Symptomatic disease is a mild illness. Lymphadenopathy is the most common clinical presentation which may be accompanied by fever, malaise and myalgia. Lymphadenopathy is usually diagnosed by biopsy. The present study was carried out to determine the reliability of the histological findings in the diagnosis of toxoplasmosis.

Seventeen patients with a histological suspicion of *Toxoplasma* lymphadenitis and referred to the Department of Parasitology, faculty of Medicine Peradeniya for confirmation, were included in the study. *Toxoplasma* IgG Enzyme linked immunosorbent assay (ELISA) was carried out on serum samples from all 17. *Toxoplasma* IgG avidity ELISA was performed to identify the phase of infection (acute/chronic). PCR was performed on blood samples.

Of the 17 patients, 8 (47%) were positive for *Toxoplasma* IgG ELISA. Negative *Toxoplasma* IgG ELISA rules out the toxoplasmic aetiology of lymphadenopathy. None of the samples were positive for low avidity IgG ELSA and PCR, indicating chronic infection. The present study showed a considerably low sensitivity for the histological suspicion of *Toxoplasma* lymphadenopathy by having 53% of false positives, thus stressing the importance of detecting *Toxoplasma* antibodies in serum prior to lymph node biopsy in lymphadenopathy patients.

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