

**EVALUATION OF THE WHO CLINICAL CRITERIA FOR  
DIAGNOSIS OF LEPTOSPIROSIS AMONG THAI PATIENTS  
IN KHONKAEN AND KALASIN PROVINCES, THAILAND**

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**ABSTRACT**

The purpose of this study was to evaluate the WHO clinical criteria for diagnosis of leptospirosis, describe the clinical manifestations of leptospirosis, and associated or pre-exposed factors among suspicious leptospirosis patients.

A prospective, descriptive study was carried out at the North-Eastern Regional Infectious hospital, Khon Kaen province, and Yangtalat hospital and Kamalasai hospital in Kalasin province during November 11, 2003 and January 6, 2003. Based on results of the IFA test for leptospirosis, the patients were divided into 2 groups; 11 cases in the confirmed group and 26 cases in the unconfirmed group.

The demographic information was not significantly different between the 2 groups. Clinical manifestations of leptospirosis among the confirmed group were non-specific. The major signs and symptoms found in this study, included acute febrile illness 11 (100%), headache 10 (90.9%), myalgia 9 (81.8%). Anemia was found in 54.5% of cases. Abnormal liver function tests and renal function tests were in the mild to normal range. Cast in urine was found in 54.5% of cases ( $P=0.037$ ) and could be considered for diagnosis of leptospirosis. Median of the WHO criteria score was 21 (14-24) and it was not statistically different between the 2 groups ( $P=0.314$ ). Sensitivity, specificity, positive predictive value, and negative predictive value of the WHO criteria score at cut-off score of 20 or over were 72.7%, 38.5%, 33.3%, 76.9%, respectively. Thus, the WHO criteria was not appropriate for diagnosis of leptospirosis initially in our study.

Further study is recommended in a large sample size for evaluation of the WHO criteria, clinical manifestations of leptospirosis, and also to identify the cause of anemia in leptospirosis is needed for better conclusions. Interval time in the convalescence phase should be studied to determine leptospira antibodies.

**KEY WORDS: WHO CLINICAL CRITERIA / LEPTOSPIROSIS**