

BÀI BÁO KHOA HỌC ĐÃ CÔNG BỐ
ĐƠN VỊ: BỘ MÔN KỸ SINH Y HỌC
THỜI GIAN: 2021 - 2022

CLINICAL AND LABORATORY FINDINGS AMONG PATIENTS WITH TOXOCARIASIS IN MEDIC MEDICAL CENTER, HO CHI MINH CITY, VIETNAM IN 2017-2019

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ABSTRACT

Background: Human toxocariasis is prevalent in many countries but this disease has been rarely reported from Vietnam. We aimed to investigate the clinical and laboratory findings and assess possible association between these findings in patients with toxocariasis in Vietnam.

Methods: A prospectively study, between October 2017 and June 2019 was performed involving 120 toxocariasis patients at Medic Medical Center, Ho Chi Minh City, Vietnam. The diagnosis of toxocariasis was established based on clinical, laboratory (eosinophilia, raised IgE concentration) and serological (positive *Toxocara* IgG ELISA test) evaluation as well as the exclusion of other helminthic coinfection.

Results: The most frequently reported manifestation was of skin (n = 93, 77.5%), including urticarial (n=69, 57.5%) followed by neurologic, gastrointestinal and pulmonary signs/symptoms. Hepatic involvement occurred in 8.3% of the patients. No significant relationship between clinical findings and laboratory parameters was found except the higher values of eosinophil count and IgE concentration among patients with liver involvement. There was a significant relationship between eosinophil count and IgE concentration ($r=0.389$, $P<0.001$). Serological findings did not show a correlation with clinical and other laboratory findings.

Conclusion: Our data revealed a wide range of clinical symptoms/signs and a high incidence of skin manifestations in patients with toxocariasis. Eosinophil count and IgE concentration are valuable markers for the evaluation of the disease

THE KINETIC PROFILE OF CLINICAL AND LABORATORY FINDINGS AND TREATMENT OUTCOME OF PATIENTS WITH TOXOCARIASIS

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Objectives: Human toxocariasis is a widespread zoonosis for which a chemotherapy decision and therapy effectiveness are difficult to determine. We aimed to investigate the kinetic profile of clinical and laboratory findings and treatment outcome of patients with toxocariasis in Vietnam.

Methods: The prospective study was conducted between October 2017 and June 2019. The diagnosis of toxocariasis was established based on clinical, laboratory (eosinophilia, raised IgE concentration) and serological (positive *Toxocara* IgG ELISA) evaluation as well as the exclusion of another helminthic co-infection. The patients were followed up after seven days, then one, three and six months after chemotherapy by thiabendazole.

Results: The study involved 80 patients with a mean age of 41.6 ± 15.2 years of whom 58.8% were female. At three and six months after chemotherapy, most patients demonstrated resolution of clinical signs and symptoms, eosinophil count and IgE concentration but not in the proportion of IgG seropositivity. Skin lesions and eosinophilia resolved earlier than the other symptoms (one month after treatment). About four-fifths of the patients were “cured” after three and six months of follow-up; 33.8% showed side effects to thiabendazole therapy but no severe events were reported. The most common adverse reaction was neurologic symptoms followed by gastrointestinal or skin manifestations which lasted as long as 4 days.

Conclusions: In toxocariasis patients, cutaneous manifestations and eosinophilia resolve more rapidly than other clinical and laboratory findings while IgG titre has a very slow kinetic after therapy. Thiabendazole seems to be a potential alternative for the treatment of human toxocariasis.

**NHIỄM GIUN LƯỜN VÀ MỘT SỐ YẾU TỐ LIÊN QUAN Ở BỆNH NHÂN ĐIỀU TRỊ NỘI TRÚ TẠI KHOA NỘI
TỔNG QUÁT, BỆNH VIỆN ĐA KHOA KHU VỰC CỬ CHI, 2021**

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**THE PREVALENCE OF *Strongyloides stercoralis* INFECTION AND RELATED FACTORS IN INPATIENTS AT THE
GENERAL INTERNAL DEPARTMENT, CU CHI REGIONAL GENERAL HOSPITAL, 2021**

ABSTRACT

Human strongyloidiasis – the disease is caused by *Strongyloides stercoralis* infection, is one of the neglected parasitic diseases, but is an important health problem in immunodepression patients due to its autoinfection cycle and lead to hyperinfection. In currently, there were not many adequate studies on this major in patients who were treated inside hospital. A cross-sectional descriptive study and convenient sampling of all patients being treated as inpatients at the hospital. Stool samples were collected and tested for *Strongyloides stercoralis* infection by direct smear and modified Harada Mori culture. Study of 330 cases of inpatients treated at the general internal medicine department of Cu Chi general hospital showed that: the prevalence of *Strongyloides* spp infection was 8.5%. In which, direct smear technique only detected 7.0%, lower than the culture technique. Patients over 60 years old, prolonged use of corticosteroids, farmer and frequent contact with soil directly increased *Strongyloides* spp infection risk 4.1; 3.0; 4.5 and 5.1 times in order. Sex, education level, unhygienic latrines using, and the percentage of eosinophils were not related with *Strongyloides* spp infection.

Key words: *Strongyloides* spp infection, Harada - Mori technique, Cu Chi Regional General Hospital

**TỶ LỆ NHIỄM GIUN MÓC/MỎ VÀ MỘT SỐ YẾU TỐ LIÊN QUAN Ở NGƯỜI DÂN
XÃ THANH BÌNH, HUYỆN TÂN BIÊN, TỈNH TÂY NINH NĂM 2022**

Trần Trinh Vương, Huỳnh Thị Thảo, Lê Đức Vinh, Đỗ Hải Anh

**THE PREVALENCE OF HOOKWORM INFECTION AND RELATED FACTORS IN HUMAN AT THANH BINH
COMMUNE, TAN BIEN DISTRICT, TAY NINH PROVINCE, 2022**

ABSTRACT

Hookworm is a human parasite causes anemia. Although hookworm infection tended to decrease in both rate and intensity, it was still one of the health problems of the community. This study was conducted from April 2022 to August 2022 to determine the prevalence of hookworm infection and related factors in human at Thanh Binh commune, Tan Bien district, Tay Ninh province. A total of 680 villagers were examined with stools by direct smear technique, and Harada – Mori culture technique to diagnose of hookworm infection, along with interviewed to determine related factors. The prevalence of hookworm infection in the commune was 12.5%. Farmer, working age, old, the use of unsanitary latrines, and poor economic status was related to hookworm infection. Harada Mori culture technique capable of detecting hookworm infection was 81.2%, higher than the stool direct smear technique.

Key words: Hookworm infection; stool culture; Tan Bien district, Tay Ninh

**TỶ LỆ NHIỄM GIUN LƯƠN *Strongyloides stercoralis* VÀ MỘT SỐ YẾU TỐ LIÊN QUAN Ở NGƯỜI DÂN
XÃ TÂN PHONG, HUYỆN TÂN BIÊN, TỈNH TÂY NINH NĂM 2022**

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**PREVALENCE OF *Strongyloides stercoralis* INFECTION AND RELATED FACTORS
IN HUMAN AT TAN PHONG COMMUNE, TAN BIEN DISTRICT, TAY NINH PROVINCE, 2022**

ABSTRACT

Human strongyloidiasis – caused by *Strongyloides stercoralis*, has been increasing in the Southern provinces recently. A cross-sectional study was conducted from March 2022 to August 2022 to determine the prevalence of *S. stercoralis* infection, and related factors in human at Tan Phong commune, Tan Bien district, Tay Ninh province. A total of 430 people were examined stool tests by using direct smear combined with modified Sasa culture technique to diagnose strongyloidiasis. The composition of *Strongyloides* species was determined from larval samples by real-time PCR. The prevalence of *Strongyloides* spp infection was 4.88%, highest in Cau and lowest in San Bay hamlet (7.02% and 1.64%). Male and the poor of economic condition group are 2.81 and 9.4 times at risk to be infected with strongyloidiasis than other groups respectively; Age group, farmer, using of unhygienic latrines and barefoot habit were not related with strongyloidiasis infection. The Sasa modified culture technique had the ability to detect strongyloidiasis was 90.5%, higher than the stool direct smear technique of 76.2%. All larval samples were determined to *S.stercoralis* (21/21).

Key words: *Strongyloides stercoralis*, Sasa culture, realtime PCR

