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## Investigation on Subclinical Aspects Related to Intestinal Parasitic Infections Among Thai Laborers in Taipei

### Key Words

Foreign laborers  
Intestinal parasites  
Nutritional status  
Serum total IgE  
Eosinophilia

### ABSTRACT

The migration of foreign workers from developing regions to developed countries may potentially lead to transmission of intestinal parasitic infections. In order to determine the relationship between intestinal parasitic infections and the health status of foreign workers, 302 Thai laborers brought to Taiwan were examined in this study. Nine species of parasites were found in 64.9% of laborers; *Opisthorchis viverrini*, hookworm and *Strongyloides stercoralis* were the main ones found. A significant higher rate of *O. viverrini* infection was found among the lower income group and there was a significant association with consumption of *koipla* (a dish of raw fish). No significant differences were found in the body mass index or nutritional status between those laborers with and without parasites. However, a significant elevation of total IgE level was observed in those with parasitic infections. One hundred thirty-three laborers (44%) had a high level of eosinophils ( $> 400/\text{mm}^3$ ), but there was no significant difference between infected laborers and those without parasites. Results of post-treatment fecal examinations indicate that 2 or 3 repeated courses of treatment by pyrantel pamoate, mebendazole, praziquantel, or metronidazole were effective in eradicating parasites, with adverse side effects found in 29.7% of treated laborers.

### INTRODUCTION

A high prevalence of intestinal parasitic infections has been reported in foreign workers. Positive rates ranging between 18% and 74% have been found among Southeast Asian workers in Japan,<sup>1</sup> Taiwan,<sup>2</sup> Israel<sup>3</sup> and Saudi Arabia.<sup>4</sup> A recent long-term study reported that there has been a dramatic reduction in the prevalence of parasitic infections in Southeast Asian laborers in Taiwan.<sup>5</sup>

Most intestinal parasitic infections are asymptomatic. However, gastrointestinal complaints, anemia

and peripheral eosinophilia, as well as hypoalbuminemia have been reported to be associated with recognized *Strongyloides stercoralis* infection.

Moreover, there is evidence to suggest a relationship between *Clonorchis sinensis* or *Opisthorchis viverrini* and malignancies in the hepatobiliary system.<sup>6,7</sup> It has long been known that infection, nutrition, and immunity have causal relationships.<sup>8,9</sup> Intestinal parasites may cause disturbances in the nutritional status of their hosts by impairing food absorption, competing for nutrients, altering metabolic rates, and depressing their appetite. As a result of these influences

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