

PRELIMINARY REPORT ON THE RELATIONSHIP BETWEEN GIARDIASIS AND DISEASES OF THE GASTRO-INTESTINAL TRACT.*

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Introduction

Giardiasis causes a spectrum of disease states extending from the asymptomatic infection to the full-blown celiac syndrome; in between are all degrees of upper gastrointestinal signs and symptoms, rarely gallbladder and hepatic signs and symptoms occur.⁽¹⁾ The mechanisms of the host-parasite relationship in human giardiasis had been studied and reported in countries of all continents but no such reports from Thailand has ever been published. Six cases reported by Uthaichalerm⁽³⁾ and one by Munskul,⁽²⁾ both in 1962, were case reports. This paper describes an at-

tempt to find any relationship between *Giardia lamblia* infection and the diseases of the gastro-intestinal tract from a small number of cases.

Description of the study

Stool specimens were collected from 495 patients with symptoms of diseases of the gastro-intestinal tract. They are in-patients of Chulalongkorn Hospital and out-patients of Bangkok 1st Class Health Center. Direct examination of fecal films in normal saline and iodine solution was used to discover the trophozoite or cyst of *Giardia lamblia* and the specific diagnosis of Giardiasis were made in 26 cases.

Results

Among a total number of 495 patient with GI diseases, there were 232 males and 214 females. (Number of cases with Giardiasis 26 (5.2%); 14 male, 12 female).

<u>Age group</u>	<u>No. of patient</u>	<u>No. of cases</u>	<u>Per cent</u>
Under 1 yr.	117	1	0.8
1 - 10 yr.	251	17	6.7
11 - 20 yr.	35	2	5.7
21 - 30 yr.	34	5	14.7
Over 30 yr.	59	1	1.7

(Youngest 25 days : Oldest 45 years)

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<u>Symptoms</u>		<u>Clinical Diagnosis</u>	
Diarrhea	18 cases	Diarrhea	10 cases
Flatulence	10 cases	Pneumonia	5 cases
Nausea and Vomiting	7 cases	Flatulence	4 cases
Constipation	7 cases	Acute gastro-enteritis	1 case
Loss of wt. & malnutrition	3 cases	Dysentery	1 case
Urticaria	1 case	Peptic ulcer	1 case
Maculo-papular rash	1 case	Indigestion	1 case
(17 cases have more than one symptoms)		Acute lymphatic leukemia	1 case
		T.B. meningitis	1 case
		Ca. head of pancreas	1 case

Consistency of the stools and form of G. lamblia found

Formed stools (5 cases)	- Cyst form
Semiformed stools (16 cases : 4 cases with mucus)	- Cyst form
Diarrheic stools (5 cases : all with mucus)	
3 cases who passed 1 - 4 times/day	- Cyst form
1 case who passed 7 - 8 times/day	- Cyst and Trophozoite
1 case who passed 9 - 10 times/day	- Trophozoite
No blood found in all 26 cases.	

Discussion and Summary

This study was begun with a particular interest in the relationship between the incidence of Giardia lamblia infection and the diseases of the gastro-intestinal tract. As the study went on we realized that more accuracy and many more aspects of the relationship will be gained if we add some more methods of study such as the concentration technics for stool examinations, the eradication of the flagellate by specific drugs to show its causal relationship to the symptoms of the diseases etc. This paper is a preliminary report because it is solely concerned with the early stage of the study, of which the result is inadequate to establish any

specific relationship between the infection and the diseases of the G-I tract. For example, the incidence for each age group cannot be compared because the number of patients in each age group is not the same. However some figures point to the same direction with text book description. The obvious one is the symptom of diarrhea which appears in 18 cases, one of which had stool positive culture for S. worthington and eventhough only 7 cases had been given Metronidazole, their stools were negative for the Giardia after the diarrhea had stopped. Another example is the consistency of the stools and forms of the flagellate found, the result shows that only the cyst form had been found in

formed and semi-formed stools and even in diarrheic stools the trophozoites had been found when the patient passed more than 7 times per days.

So far we can only summarize that the number of cases in this series is too small for establishing any significant relationship between the *Giardia lamblia* infection and the diseases of the gastrointestinal tract, but some figures of our re-

sults point to the same direction with textbook description of Giardiasis.

References

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 2. Munskul, N. : Vejsara 11 : 321, 1962.
 3. Uthaichalerm, V. : J. Med. Ass. Thailand 45 : 278, 1962.
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