

EPIDEMIOLOGY OF INTESTINAL PROTOZOA IN  
AMOUI VILLAGE, KAZERUN AREA - IRAN

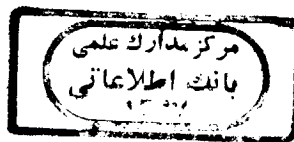
by

Husni Abed Elrahman Momani

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Thesis Committee

Dr. Fatemeh Sheiban, Associate Professor, Chairperson  
Dr. Mehdi Ghorbani, Associate Professor  
Dr. Jaafar Massoud, Associate Professor  
Dr. Kiumarss Nasser, Assistant Professor  
Dr. Abbas Sanati, Professor



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Autobiography

Name: : Husni Abed Elrahman Alsaid Al-Momani

Date and place of birth: 3-2-1939. - Ibbin - Jordan

Academic degree: Diploma of Medicine 1963. Cracow.  
(Poland)

The present Governmental  
status: : Mafraq Medical Officer, Jordan

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TABLE OF CONTENTS

	page No.
AUTOBIOGRAPHY .....	ii
ACKNOWLEDGEMENT.....	iii
LIST OF TABLES .....	vi
LIST OF ILLUSTRATIONS.....	viii
LIST OF APPENDICES.....	ix
CHAPTER ONE .....	1
Introduction.	
Definitions.	
CHAPTER TWO .....	6
Review of literature.	
Environmental sanitation.	
Host characteristics and the prevalence of infection.	
CHAPTER THREE .....	16
Material and methods.	
A-Description of the study area.	
B-Field and Labortary work.	
CHAPTER FOUR .....	25
Results.	
The prevalence rate and Host characteristics.	
The prevalence rate and sanitation.	
The correlation between E.histolytica; and G. lamblia.	
CHAPTER FIVE.....	48
Discussions.	

The prevalence rate and Host  
characteristics.

The prevalence rate and sanitation.

RECOMMENDATIONS.....	59
SUMMARY .....	60
PERSIAN SUMMARY .....	63
REFERENCES .....	66

List of Tables

	page No.
Table 1. Age and sex distribution of the population in Amoui Village, Kazerun - Iran.	19
Table 2. The prevalence rate of intestinal protozoa according to age in 435 examined stools in Village Amoui - Kazerun - Iran.	26
Table 3. Single and multiple infection of intestinal protozoa.	31
Table 4. The prevalence rate of intestinal protozoa by age and sex in 435 examined stool in Amoui Village - Kazerun.	33
Table 5. The prevalence rate of intestinal protozoa in relation to occupation.	36
Table 6. The prevalence rate of intestinal protozoa in relation to literacy in 435 persons in Amoui Village - Kazerun - Iran.	38
Table 7. The prevalence rate of intestinal protozoa in relation to symptoms in 435 persons in Amoui Village, Kazerun - Iran.	41
Table 8. The prevalence rate of intestinal protozoa in relation to sanitary conditions in Amoui Village, Kazerun - Iran.	44
Table 9. The correlation between <i>E. histolytica</i> and <i>G. lamblia</i> in various age groups.	46
Table 10. The correlation between <i>G. lamblia</i> and <i>E. histolytica</i> by age and sex.	46

Table 11. The correlation between *D. histolytica* and  
*G. lamblia* in relation to symptoms. 47

List of Illustrations

page No.

Map of Amoui Village - Kazerun area - Iran.	12
Graph 1. The prevalence rate of E. histolytica, G. lamblia and E. coli: in relation to age.	27
Graph 2. The prevalence rate of intestinal protozoa found in 435 examined stool in Amoui Village, Kazerun - Iran.	28
Graph 3. The prevalence rate of intestinal protozoa in various age groups in 435 persons in Amoui Village - Kazerun - Iran.	29
Graph 4. The prevalence rate of intestinal protozoa in males and females in 435 examined stool specimens in Amoui Village, Kazerun - Iran.	34
Graph 5. The prevalence rate of intestinal protozoa in relation to occupation.	37
Graph 6. The prevalence rate of intestinal protozoa in relation to literacy in 435 persons in Amoui Village, Kazerun - Iran.	39
Graph 7. The prevalence rate of intestinal protozoa in relation to symptoms.	42
Graph 8. The prevalence rate of E. histolytica, E. Coli, G. lamblia and any type of protozoal infection in relation to sanitary conditions.	45



List of Appendices

		page No.
Appendix I.	Family form	69
Appendix II.	Individual form	70
Appendix III.	Laboratory form	71

## Chapter One

### Introduction

Manwell as quoted by Craige and Faust's (1974)(1) stated that "The protozoa rival anything in the animal kingdom for uniqueness and novetly, some protozoa manage to capture and swallow animals larger than themselves, others are cannibals. Many are unconsciously greedy gorging themselves twenty four hours a day." This shows the importance of protozoa including intestinal protozoa whose importance lies not only because of its pathogenicity and harm caused to man but also because it spreads directly concerned with man himself, his way of living, habits, custom and diet.

The impact of any disease lies on the host, agent and environment. Thanks to the new techniques and enlightenment as regards various disciplines in medical science, the agent is now well known, what remains is the knowledge about the host and environment,

Negham 1961 as quoted by Faust's (1) stated that "The parasitic disease is an indication of environmental conditions. A high index of intestinal parasitoses reveals deficiencies in sanitation in the standard of living and habits of cleanliness" from both host and environment distribution.

I was encouraged by the fact that no similar studies have been done in my country, so that I can follow these steps in implementing it upon my return to Jordan. Especially now that recent reports show that the impact of intestinal protozoa is very high rate, and plans to control are under study. As Buck et al (2) said "in any planning it becomes more and more important to distinguish between historical assumption as to the epidemiology of the disease and the realities of their occurrence and transmission."

Amoui Village - Humeh district - Kazerun Area - Iran was selected as the site of this study because the protozoal infection is expected to be high and no previous study had been done on it, and this village is representative of all the villages in that area.

The aims and objectives of this study are:

A. Immediate objectives:

- 1- To detect the prevalence of intestinal protozoa in the area and compare it with the prevalence of other areas.
2. To determine if the environmental factors effect the prevalence of the disease and to find if there is any relation between them.
3. To describe the epidemiological characteristics of intestinal protozoa infection in given area.

B Ultimate Objectives: Is to find out effective control measures to be implemented in control program.

### Definitions

**Poor Sanitation:** The house is built of mud or a hut, the rooms are not ventilated, animals live in courtyard and the general personal hygiene is not satisfactory, with unclean general appearance of the house and flies are in abundant

**Fair Sanitation:**

The house is built of bricks or cement, the animals separated in stables, but the personal hygiene and general cleanliness of the house is not satisfactory flies are in abundant

**Good sanitation:**

Brick or cement houses, personal hygiene and the general uncleanliness of the houses is good, animals are separated in stables, flies are present but not too much.

**Workers:** Any person working in any job except farming.

**Household:** Includes housewives, small children in the preschool age and very old persons.

**Positive cases:**

Those persons whose stools were examined microscopically by direct and Merthiolate-Iodin-Formaldehyde (MIF)- concentration methods, show at least one cyst or one trophozoite of any intestinal protozoa.

Negative cases: Those persons whose stools were examined microscopically by the direct and concentration method, did not show any cyst or trophozoite of any intestinal protozoa.

## Chapter Two

### Review of literature:

The awareness of protozoa can be traced as early as 1681 when Leenwenhoek, who used a simple microscope, discovered in his own stool the flagellate. It was first recognisably described by Lamble 1859 who gave it the name Giardia intestinalis, which was later named by Stiles 1915 Giardia lamblia. Craige & Faus'ts 1974"1".

Since then and due to the new techniques and disciplines in medical science, we are able to discover much about these organism. The protozoal diseases are studied and are well known in various parts of the world. Thus it is known that protozoal diseases are a public health problem of international importance.

A. The prevelance rate of infection: Amoebiasis is known to occur in every part of the world and is estimated to effect 10% of the world's population (W.H.O. 1969) "3". The prevalence and severity differ from area to area, in special circumstances, for example in Alaska and Canada, the rate of Entamoeba histolytica was 1% and in U.S.A. population the rate was less than 5% as compared with previous rates of 10 - 20% in U.S.A. The big difference between the two rates was due to the fact that the previous estimates were only done in a group expected to show high prevalence (R.B.Burrow. 1961) "4".