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STUDY ON INTESTINAL PROTOZOA IN SEVEN VILLAGES OF BANDARABASS 1978

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ABSTRACT

A survey was carried out in seven villages around Bandarabass to determine the prevalence of the intestinal protozoa infections. Out of the 835 stool specimens examined, 676 samples were positive with single and multiple infections.

The most prevalent of intestinal protozoa in Bandarabass were *Entamoeba histolytica, Entamoeba coli, Giardia lambia* and *Iodamoeba butschlii.*

INTRODUCTION

Human infection with intestinal protozoa is rather high in some parts of Iran particularly in the south (1, 2, 3, 4, 5, 6, 7, 8, 9,).

The present study has been conducted to obtain information on the prevalence of the intestinal protozoa in the rural sectors of Bandarabass area.

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MATERIALS AND METHODS

Eight hundred and thirty five stool specimens were collected from the apparently healthy inhabitants of seven villages (Gishan-gharbi, Chahestan, Sar-Chahan, Takht, Godou, Jallabi and Hassan-langeh) around Bandarabass.

In order to collect the specimens each person was given a waxed paper cup with a tight lid for preparing the stool specimen. After carrying the samples to the laboratory they were examined with direct (saline and modified M.I.F. solutions) (10) and ether - formol concentration methods.

RESULTS

The prevalence of various intestinal protozoa in different sexes are shown in table 1.

The percentage of people infected with one or more species of intestinal protozoa are shown in table 2, demonstrating 32.85 percent single infection and 63.14 percent multiple infection.

The prevalence of the intestinal protozoa in the various villages are shown in table 4.

DISCUSSION

The present study showed a high prevalence of all intestinal protozoal infections in Bandarabass area (80.4 percent) which directly reflects the poor socio-economic conditions with low personal and family hygiene. The poor sanitation and dirty environment added with the abundant number of flies help to dissiminate the infection more wide spread.

As shown in table 3 the prevalence of infection with *E. histolytica* increases with the increasing of age, while the highest infection with *G. lamblia* is observed in then youngest age group (0-5 years). The lower rate of amoebiasis amongst the children is in accord to the general literature (Belding). (11) Similar findings have been also

reported by sherestha, Momani and Arifi in Kazeroon area of Iran. This lower incidence of amoebiasis in children as pointed out by Craig and Faust[12] may be due to a lesser chance of exposure to infection.

High prevalence of *G. lamblia* in the young age group and decreasing as the age increases indicates that the adults might be developing some degree of resistance against this parasite as mentioned by Faust et al.[12]

The difference of infections with *E. histolytica* and *G. lamblia* between males and females are statistically significant ($x^2 = 3.42$; $0.5 < P < 0.1$ and $x^2 = 3.19$; $0.5 < P < 0.1$, respectively).

The infection with *E. histolytica* in sar-chahan and Chahestan villages are higher than the other villages, while the highest prevalence of *G. lamblia* is observed in Hassan - langeh and Gishan-gharbi villages.

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Table,1

Showing prevalence of different protozoan infection in male and female

Sex	No Exam.	Percent infected with							
		E.hist	E.Coli	E.hart	E.nana	I.but.	G.lam.	T.hom	Ch.m.
M	525	36.9	61.1	12.9	3	12	26.4	10.8	11
F	310	30.6	56.7	8.7	2.5	10.3	32.2	10.3	7
Total	835	34.6	59.5	11.37	2.8	11.3	28.6	10.6	9.5

Table,2

Showing percentage of single and multiple protozoan infection in different villages.

Locality	Single infection	Multiple infection	Total
Gishan-gharbi	33	32	65
Chahestan	73	124	197
Sar-Chahan	16	34	50
Takht	61	126	187
Goduo	13	51	64
Jallabi	17	30	47
Hassan-langeh	17	45	62
	32.85	63.14	92

Table,3

Prevalence of different protozoan infection in different age groups

age groupe	No. Exam.	Percent infected with.							
		E.his.	E.Coli	E.hart.	E.nana	I.tut.	G.lam.	T.hom.	Ch.m.
0-5	49	26.5	44.8	4	0	2	48.9	16.3	0
6-10	280	28.2	55.7	10	2.8	10.3	28.2	9.6	7.1
11-15	206	28.1	57.7	9.2	2.9	9.7	27.6	8.7	13.5
16-20	43	39.5	60.4	11.62	6.9	25.5	25.5	6.9	4.6
21-40	155	42.5	61.9	13.5	3.2	12.9	30.3	13.5	9.6
41-60	87	54	77	13.3	2.2	13.7	21.8	9.1	12.6
61+ and over	15	60	73.3	53.3	0	13.3	13.3	26	26.6
Total	835	34.6	59.5	11.37	2.8	11.3	28.6	13.6	9.5

Table, 4

Prevalence of different protozoan infection in seven villages of Bandarabass area.

Locality	No Exam.	Percent infected with							
		E.hist.	E.Coli	E.hart.	E.nana	I.but.	G.lam.	T.hom.	Ch.m.
Gishan gharbi	74	32.4	54	18.9	2.7	12.1	45.9	1.3	12.1
Chahestan	249	39.7	59	10.8	4.8	4.	19.6	7.2	3.6
Sar-chahan	57	40.3	70.1	19.2	5.2	8.7	31.5	10.5	12.2
Takht	239	28.4	61.5	9.2	1.6	10.4	30.1	9.6	11.7
Goduo	79	37.9	60.7	10.12	2.5	8.8	24	36.7	15.1
Jallabi	59	37.2	59.3	13.5	1.6	20.3	18.6	11.8	13.5
Hassan langeh	78	29.4	51.2	6.4	-	28.2	46.1	6.4	16.6

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