EPIDEMIOLOGYCAL RESEARCH ON GIARDIOSIS AFFECTED HUMANS

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Abstract
Giardiasis is an intestinal parasitizes (parasite zoonozis) that affects humans and other vertebrates, produced by the flagellated protozoa Giardia spp. The disease has an ubicuitary (universal) distribution and can evolve in sporadic or epidemic focuses. Contamination is done mainly through feces or oral distribution, but contamination through water, food or zoonotic contaminations are also taken into consideration. On humans, Giardia infections can behave through total latency, acute short lasting diarrhea or chronicle syndrome, associated with nutritional dysfunctions, weight loss and growth stopping. In Romania, Giardiasis infestations on children can vary, mainly due to the environment from which the children come from, family or society, and also due to the children's age. In the current document , the objectives are to analyze the giardiasis spreading through across children and adult societies from Oradea from January to August. Studies have shown the following , occurred on patients signed in the Hospital of Infectious Diseases of Oradea: prevalence of Giardiasis has had the value of 2.45%, with monthly limits between 1.87 - 4.36%. Infection has had an increased spread on children between 5 to 10 years old(11.93%), on youths between 15 to 20 years old(15.28%) and on adults between 65 to 75 years old(19.67%). 42.85% of the positive diagnosed patients come from rural environment and 57.15% from urban environment. It has also been noticed frequent association of the giardia parasite with acute colecistitis, with alergodermia and with acute gastritis.
Through across children societies, giardia spreading has had a value of 8.93% , in a normal schedule kinder garden, on children of ages between 0 to 5 years, a value of 26.29% in a placement center for institutionalized children with psycho-motor handicap, and the absence of giardia upon the children with ages from 6 to 10 years in a normal schedule school.

Keywords*:* giardiosis, giardia, protozoa, parasite

INTRODUCTION, PURPOSE OF STUDY

In the present conditions when the incidence of parasitary zoonosis has a tendancy to grow, an aproach on giardiosis affected humans is opportune. Research undertaken seek to show the evolution of giardiosis within child and adult communities from Oradea, Bihor.

MATERIAL AND METHODS

Epidemiologycal research regarding the evolution of giardiosis have been done from the 1st January 2009 to the 30th August 2009 at the normal schedule Kindergarden nr.X and the General School nr.Y of Oradea, Bihor. Cases of giardiosis reported at the Infectious Diseases Clinic of Oradea have been investigated clinically and paraclinically. Clinically, the reasons of internment and symptomatology given by the parasitary infection have been tracked. Coproparasitologycal examination has been done using the Willis and modiffied Blagg method at the Faculty of Veterinary Medicine of Cluj-Napoca and within the laboratory of the Infectious Diseases Clinic of Oradea. Both laboratories have detected the

presence of Giardia on 69 patients out of the 2812 investigated from the 1st January 2009 to the 30th August 2009.

RESULTS AND DISCUTIONS

Out of the 2812 investigated from the 1st January 2009 to the 30th August 2009, 69 patients have been diagnosed with giardiosis, meaning a percent(PR) of 2.45%. Monthly PR of giardiosis varies between 1.87% and 4.36% the highest value reported in april.

Table 1

Prevalence and prevalence rate of giardiosis on patients interned at the Infectious Diseases Clinic of Oradea

MONTH	NR. OF INTERNED CASES	PREVALENCE	PREVALENCE RATE
JANUARY	149	6	4,03 %
FEBRUARY	256	8	3,13 %
MARCH	375	7	1,87 %
APRIL	459	20	4,36 %
MAY	422	6	1,42 %
JUNE	473	5	1,14%
JULY	346	10	2,89%
AUGUST	332	7	2,11%
TOTAL	2812	69	2,45 %

Epidemilogyc investigation results done in giardiosis on the children of the normal schedule Kindergarden nr.X and the General School nr.Y of Oradea, Bihor have shown Giardia Lamblia infection, examining 56 children out of which 29 children aged 0 to 5 and 27 children aged 5 to 10. Out of the total of examinated children only 5 children have shown giardiosis in the 0-5 years age group , which means a PR of 8,93% (Table 2), and in the second case no giardia or intestinal parasites have been detected on any of the children.

Table 2

Incindence of giardiosis on children from the normal schedule Kindergarden nr.X of Oradea

AGE	NR.OF EXAMINATED CHILDREN	NR. OF GIARDIOSIS CASES	PREVALENCE %
0-5 years	29	5	17,2 %
5-10 years	27	0	0

In the Placement Center Nr.Z of Oradea, Bihor incidence of giardiosis has been tracked on children with psicho-motory handicap institutionalised here. A group of 23 children aged 4 to 9 has been examinated, out of which 14 girls and 9 boys. Presence of giardia has been discovered on 6 children, which represents a PR of 26,29% (Table 3). Out of the 6 cases , 4 have been discovered on girls and 2 o boys.

Table 3

Incidence of giardiosis on children from the Placement center nr.Z of Oradea , Bihor

		PREVALENCE %
Nr.giardiosis cases	6	26,29%
Nr. of non infested cases	17	73,71 %
TOTAL OF EXAMINATED CASES	23	100 %

Analising these results a fact can be underlined: Lucian's statement (1971), according to which the incidence of giardiosis is much higher on children from collectivities than on those from family environment, is true. Depending on age, maximum incidence has been recorded in the next categories: 5-10 years, respectively 11.93%, 15-20 years – 15.28% , 45-55 and 65-75 – 19.67%; in the rest of the age categories incidence was under 10%, the lowest being 2.49% in the 20-25 age category. This data invalidates Gillon's statement(1984) regarding the maximum incidence of giardiosis on children aged 1 to 3; data collected have not shown a significant difference of the giardiosis PR on subjects from both urban and rural environment(according to Literat in 1972, quoted by Suteu in 1996, infestation sources are unequally spread in urban and rural environments).
According to Fazakaş in 1989, giardiosis is generally a disease with chronic evolution, sow, which depends on the actual state of immunity of the organism. Research carried out at the Infectious Diseases Clinic of Oradea have shown frequent association of giardiosis in adult cases with acute colcistitys, reactive alergodermia, acute gastritis and hypocalcaemia.

CONCLUSIONS

Epidemiologycal research regarding the evolution of giardiosis (lambliazis) in both adult and children communities from Oradea, between january and august 2009, have shown the following:

→ On 2812 patients interned in the Infectious Diseases Clinic of Oradea, prevalence rate has been 2.45% with monthly limits between 1.87% and 4.36%; the infection has had a high incidence on children aged 5 to 10 (11.93%), on youngsters aged 15 to 20 (15.28%) and on adults aged 45 to 55 and 65-75 (19.67%)

→ On children from the normal schedule Kindergarden nr.X, giardiosis has had a prevalence of 8.93%, and on those from the General school nr.Y, there has been no diagnose of the disease.

→ On children from the Placement center nr.Z, the disease has had a prevalence of 26.29%.

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