

110 - IDENTIFICATION AND TREATMENT OF ENDOPARASITOSIS IN THIRD AGE PATIENTS

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1 INTRODUCTION

The intestinal endoparasitosis are of great importance for the world, they are constituted in a serious problem of public health and they contribute to problems economical, social and medical, above all in the countries of the third world. The parasitic diseases are important for the resulting mortality and for the frequency with that produce organic deficits, being one of the main debilitating factors of the population, associating to pictures of chronic diarrhea and of malnutrition, committing like this, the physical and intellectual development, particularly of the age groups more youths of the population (PEDRAZZANI et al., 1989).

Studies approaching the occurrence of intestinal parasites in the senior population is scarce. In spite of it is known that the enteroparasites contribute in the compromising of the nutritional state of this population segment and of its health as a completely.

The helminthes frequently found in the seniors are: *A. lumbricoides*, *T. trichiura*, *A. duodenale* and *S. stercoralis*. among the protozoa of larger incidence in that age group is had: *E. coli*, *G. lamblia* and *E. histolytica* (PESSÔA; MARTINS, 1988).

The intestinal parasitoses are frequent in places where low socioeconomic conditions exist. The diversity of clinical manifestations and of lesions that can happen it is related to the biological characteristics of the parasites in the treatment gastrointestinal, invasion capacity, migration and consumption of nutrients and of blood and the conditions of the host (nutrition, immunological competence and associated diseases) (PERREIRA; DIAS; NUCCI, 1995). According to the same authors the manifestations more common gastric intestinal are alterations of the intestinal habit and of the appetite, nausea, vomit and abdominal pain. The diarrhea can happen in the giardiasis, in the amebiasis and in the strongiloidiasis, as well as the anemia in the ancylostomiasis and bad absorption in the giardiasis and in the strongiloidiasis.

Knowing that the infections for helminthes and enteroprotzoaries are most of the time without symptoms or they present discreet symptomology and without specification, and in several cases they are not habitual causes of medical aid search and of investigation diagnose, it is necessary to evidence them, because a lot of times result in consequences serious and even fatal. Therefore to identify and to treat the endoparasitosis in the third age is one more challenge and a contribution to guarantee a better life quality.

2 METHODOLOGY

The study was of the traverse and analytical type with quantitative and descriptive approach, approved for the Committee of Ethics and Research with Human beings of UEPB under the n°. 3336.0.000.133-07. the participants' selection happened in the Municipal Service of Health (SMS), in Campina Grande-PB and the exams coproparasitologics in the Laboratory of Parasitology of the Center of Biological Sciences and of the Health of the Universidade Estadual da Paraíba (UEPB), in the period of March to August of 2008. The sample was composed by all the patients bearers of Arterial Hypertension and/or Diabetes Mellitus (HIPERDIA), that participate in the Program of Pharmaceutical Attention (PROATENFAR) of UEPB.

The seniors that presented enteroparasitosis were treated in agreement with the normative recommendations of the institution or of the research in process. The results were typed in software, like Excel (2003) and treaties in Epi-info 3.5.1 and SPSS version 16.0 for Windows and described in absolute and percentile numbers.

3 RESULTS

Participated in the research 107 people and all the socioeconomic and demographic data are registered in Table 1.

TABLE 1: Socioeconomic and demographic indicators of the sample (n = 107).

INDICATIVE	n	%
Gender		
Feminine	78	73
Masculine	29	27
Type of chronic disease no transmissible (DCNT)		
Systemic Arterial hypertension (HAS)	71	66
HAS and Diabetes Mellitus (DM)	36	34
Pay family (Wages - minima)		
0 --- 1	06	06
1 --- 2	85	79
2 --- 3	09	08
3 --- 4	03	03
4 --- +	04	04
Occupation		
Active	24	22
Inactive	83	78
Presence of garbage collection		
Yes	100	100
No	-	-
Presence of net of channeled water		
Yes	100	100
No	-	-
Presence of net of sanitary exhaustion		
Yes	98	92
No	09	08

n=number; % = percentile.

In referred study, the largest frequency corresponded to the feminine gender. One cannot affirm that the parasitosis is

more present in the women, the reason of the present always in larger percentile it can be related to the averse behavior on the part of the men in relation to the solemnity-care in the subjects of health.

Regarding the sponged seniors' age group, the largest frequency was registered in the interval of 60 - 69 years. Studies as the one of Ludwig et al., (1999) and Guerreiro, Alencar and Guerreiro (2005) affirmed that with the progress of the years, there is a tendency for the decrease in the incidence taxes and of endoparasitoses prevalence in adults, resulting from the change of habits and of the development of the progressive immunity of long duration against the parasites.

Most of the seniors belonged to the population economically inactive, they were retired and attended by the National Institute of Social Sureness (INSS), insured right for the Brazilian constitution (BRAZIL, 1988). The monthly family income revealed corresponded to the stratum from 1 to 2 minimum wages, given verified also in other analyses that, as smaller the larger income the infestation probability for parasites. According to Ferreira, Ferreira and Monteiro (2000), besides the income, the education, the feeding type and the presence of basic sanitation are decisive factors for the endoparasitoses appearance.

In the evaluation of the basic sanitation, the garbage collection and the systems of water were considered and of sewer. Soares, Bernardes and Cordeiro Netto (2002) they considered system of basic sanitation as a group formed by the infrastructure of water supply and of sanitary exhaustion, it collects and disposition of solid residues, urban drainage and control of vectors. Frei, Juncansen and Paes (2008) explained that improvements in the conditions of basic sanitation of a place, reduce the number of diseases and of possible internments.

In the studied sample the parasitosis index corresponded to 32%. the endoparasitosis occurrence in the present study corresponded to works similar to the accomplished by Guerreiro, Alencar and Guerreiro (2005). Ludwig et al., (1999) it explained that the progressive decrease in the prevalence of protozoa and of helminths it was evidenced starting from 1991.

The Table 2 makes reference to the isolated parasitosis that were presented by the patients deserving prominence to *E. histolytica* with 46% for the masculine gender and 64% for the feminine.

TABLE 2: Isolated Endoparasitosis for gender.

PARASITES	MASCULINE		FEMININE	
	N	%	N	%
<i>E. histolytica</i>	05	46	09	64
<i>E. coli</i>	-	-	03	21
<i>E. nana</i>	-	-	02	15
<i>G.lambliia</i>	01	27	-	-
<i>S.stercoralis</i>	01	27	-	-
TOTAL	07	100	14	100

The presence of the first mentioned parasite is configured in risk for the studied population, once she is pathogenic and invasive, it is also justified for the tropical climate of the city, what can favor the appearance. In agreement with Alves et al., (2003), this parasitosis type is cause of the forms amebiasis invasive and it is responsible for 10% of the 500 million people infected by amebas in the world.

The *E. coli* it is a parasite of the intestinal cavity, where it is nurtured of bacteria and alimentary debris. In spite of to be considered communal and not to present pathogenic to the human being should be studied by the fact of having transmission mechanism similar to the of the protozoa pathogenic (REY, 2001; NEVES et al., 2005). Knaipe and Tanus (1992) and Guerreiro, Alencar and Guerreiro (2005) explained that this parasite is pointed as an indicator of consumption of water and of polluted foods for fecal material.

The *E. nana* lives in the colic segments of the human intestine, without causing any badly. Her presence is justified by the literature in the way similar to the of the *E. coli*.

The giardiasis is more frequent in the childhood; in the adult population her smallest incidence elapses of the acquired immunity after exhibitions precocious resultants of infections without symptoms. The *G. lamblia* responsible for the transmission can produce several damage degrees to the mucous membrane and at the same time to propitiate conditions in the intestinal light that can harm the digestion and the absorption of nutrients (MOTTA; SILVA, 2002).

The ascariasis has prevalence in the world, attacking about 30% of the population; their symptoms usually happen when there are a more numerous infection of worms or larval. The agent transmitter separately can unchain a severe picture practice medicine, acted, mainly, for bad digestion, nauseas, appetite loss, weigh loss, sensation of nasal irritation, irritability and insomnia (REY, 2001; MELO et al., 2004). The families of low income and malnourished they are the more exposed to the risk of this infection, being able to this parasite to contribute to weaken still more the nutritional state (FERREIRA; FERREIRA; MONTEIRO, 2000).

The strongiloidiasis has high incidence in areas of tropical climate or with precarious basic sanitation (NEVES et al., 2005). The bearer of this helminthes lived in a street that has basic sanitation, however, it is without net of sanitary exhaustion, what facilitates the exhibition of residues and the appearance of responsible vectors for the transmission.

The endoparasitosis association was also evidenced, being the biparasitism acted in the majority by *E. histolytica* and *E. coli*, with 36% for the masculine gender and 64% for the feminine and the multipleparasitism for *E. coli* + *E. histolytica* + *G. lamblia* (TABLE 3).

TABLE 3: Endoparasitosis association for gender.

GENDER	BIPARASITISM				MULTIPLEPARASITISM	
	<i>E. Nana</i> + <i>A. Lumbricoides</i>		<i>E.histolytica</i> + <i>E. coli</i>		<i>E. coli</i> + <i>E. Histolytica</i> + <i>G. lamblia</i>	
	N	%	n	%	n	%
Masculine	-	-	04	36	-	-
Feminine	01	100	07	64	01	100
TOTAL	01	100	11	100	01	100

The feeding is one of the important factors in the evaluation of the parasitosis presence. In the studied sample the preference was for fruits (100%) (TABLE 4).

TABLE 4: Foods consumed by the endoparasitosis bearers.

Food	YES		NO	
	n	%	n	%
Fruits	34	100	-	-
Bean	31	91	03	9
Green Vegetables	25	74	09	26
Derived of Corn	21	62	13	38

Nóbrega (2002) explained that during the planting of fruits, green vegetables and vegetables the irrigation is accomplished with water without treatment, could result in the contamination for cysts and eggs of parasites, given important that can justify the parasitosis presence in the worked sample.

The treatment of the protozooses and of the helminthoses in the studied patients was accomplished respectively orally by the administration of the metronidazol in the dosage of 250mg, 3 times a day, for 7 days or for 10 days and albendazol in the dosage of 400mg, orally, in only dose.

Evaluating the treatment with the number of parasites, it was verified that there was a total improvement of 64% of the sample. All of the helminthes were eradicated, the only parasite that was detected so much in the first as in the second exam it was to *E. histolytica* (TABLE 5).

TABLE 5: Comparison between the parasitosis frequencies before and after treatment.

TYPE OF PARASITES	BEFORE TREATMENT		AFTER TREATMENT	
	N	%	n	%
<i>E. histolytica</i>	26	76	12	46
<i>E. nana</i>	03	09	-	-
<i>G. lamblia</i>	02	06	-	-
<i>A. lumbricóides</i>	01	03	-	-
<i>S. stercoralis</i>	01	03	-	-
TOTAL	33	100	12	36

6 CONCLUSION

The endoparasitosis presence evidenced in the geriatric population can be related to the acquired immunity with the progress of the age or for the favorable conditions offered by the municipal district. Therefore, public politics of health should be intensified, to assure the improvement and the good to be of the population, favoring the increase of the life expectation, contributing like this to a healthier longevity.

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IDENTIFICATION AND TREATMENT OF ENDOPARASITOSIS IN THIRD AGE PATIENTS SUMMARY

The intestinal parasitosis or endoparasitosis, associated with protozoa and / or helminthes, represent a serious problem of public health, particularly in the underdeveloped countries, where they are highly disseminated and prevalent due to the poor life conditions of the more lacking population layers. The most important factors that influence this situation are: absent or deficient environmental sanitation, inadequate hygiene practices and precarious conditions where millions of people live.

The objective of this work was to identify and to treat endoparasitosis in third age patients. The study was of a longitudinal and analytical type with quantitative and descriptive approach. The participants' selection occurred in the Municipal Service of Health (MSH) in Campina Grande-PB and the exams were made in the Parasitology Laboratory of the Biological Sciences Center of Health of the Universidade Estadual de Paraíba (UEPB), in the period of March to August of 2007. The results were collected in Excel (2003) software and Epi-info 3.5.1 for Windows and described in absolute and percentile numbers. Of the 107 participants, 32% had parasites. Most were women among 60 - 69 years, they had a monthly income of 1-2 minimum wages, were retired and beneficiary through the services of garbage collection and the net of channeled water. The detected endoparasitosis were: monoparasitism with to *E. histolytica* and the *S. stercoralis*; biparasitism with *E. histolytica*/*E.coli* and *E. nana*/*A.lumbricoides* and in the multiple parasitism, *E. histolytica*/*E. coli*/*G. lamblia*. The pharmacotherapy for helminthiasis was accomplished through the Albendazol 400mg and the Metronidazol 250mg in the cases of protozoa. Studies of this type should be accomplished frequently to contribute with the improvement in the quality of the elderly life, which in Brazil and the world are presenting an increase in the longevity, demanding new ways of caring from the health professionals.

WORDS - KEY: Endoparasitosis; treatment; senior.

IDENTIFICATION ET TRAITEMENT D'ENDOPARASITOSIS DANS MALADES DU TROISIÈME ÂGE RÉSUMÉ

Le parasitosis intestinal ou endoparasitosis, courant de protozoaires et/ou les helminthes représentent en particulier un problème sérieux de santé publique dans les pays sous-développés où ils viennent complètement disséminés et avec haute prédominance, dû aux mauvaises conditions de vie des plus manquant couches de la population. Plusieurs facteurs influencent dans le sens que cette situation existe: système sanitaire absent de l'environnement ou l'hygiène défectueuse, inadéquate pratique et les conditions précaires dans lesquelles millions de gens vivent constituent le plus important. L'objectif de ce travail était identifier et traiter endoparasitosis dans malades du troisième âge. L'étude était de la traverse et type analytique avec approche quantitative et descriptive. La sélection des participants s'est passée dans le Service Municipal de Santé (SMS), dans Campina Grande-PB et les examens a été fait dans le Laboratoire de Parasitology du Centre de Sciences Biologiques et de la Santé de l'Universidade da Estadual Paraíba (UEPB), dans la période de mars à août de 2008. Les résultats ont été écrits à la machine dans logiciel, comme Excel (2003) et traité dans Epi Info 3.5.1 pour Windows et a décrit dans absolu et nombres du centile. Des 107 participants, 32% trouvés avec de parasite. La plupart était du genre féminin, avec âge parmi 60 - 69 années, ils avaient du revenu mensuel de 1-2 salaires minimum, il s'est été retiré et bénéficiaire à travers les services de traitement des ordures et un système d'égout. Les endoparasitosis détectés étaient: monoparasitism avec à *histolytica E.* et le *stercoralis S.*; biparasitism avec *E. histolytica*/*E.coli* et *E. nana*/*A.lumbricoides* et dans le multipleparasitism l'*histolytica*/*E. coli* a été trouvé. *coli*/*G. lamblia*. Le farmacoterapia pour helminthiasis a été accompli à travers l'albendazol 400mg et le metronidazol 250mg dans les cas de protozooses. Les études de ce type devraient accompli fréquemment pour contribuer avec l'amélioration dans la qualité de la vie des personnes âgées qui dans notre pays et dans le monde ils présentent une augmentation dans la longévité, demander une nouvelle façon de faire attention de la part des professionnels de santé.

MOTS - CLEF: Endoparasitosis; traitement; aîné.

IDENTIFICACION Y TRATAMIENTO DE ENDOPARASITOS EN LOS PACIENTES DE LA TERCERA EDAD EL RESUMEN

La parasitosis intestinal o endoparasitosis, actual de protozoarios y/o helmintos representa un problema serio de salud pública particularmente en los países subdesarrollados donde ellos realmente vienen diseminados y con el predominio alto, debido a las condiciones malas de vida de las capas de la población más carentes. Muchos factores influyen en el sentido que exista esta situación: la higienización ausente medioambiental o la higiene deficiente, inadecuadas prácticas y condiciones inseguras en que millones de las personas viven constituyen los más importantes. El objetivo de este trabajo ha sido identificar y tratar la endoparasitosis en los pacientes de la tercera edad. El estudio era del tipo atravesado y analítico con el acercamiento cuantitativo y descriptivo. La selección de los participantes ocurrió en el Servicio Municipal de Salud (SMS), en Campina Grande-PB y los exámenes fueron hechos en el Laboratorio de Parasitología del Centro de Ciencias Biológicas y de la Salud del Universidad Estatal de Paraíba (UEPB), en el período de marzo a agosto de 2008. Los resultados se teclearon en el software, como Aventaje (2003) y tratado en Epi-info 3.5.1 para Windows y se describió en absoluto y números del porcentaje. De los 107 participantes, 32% estaban infectados con parásitos. La mayoría era del género femenino, con la edad entre 60 - 69 años, ellos tenían ingreso mensual de 1-2 salario mínimo, estaban jubilados y beneficiarios a través de los servicios de colección de basura y precio neto de agua encauzada. Los endoparásitos descubiertos eran: el monoparasitismo con el *E. histolytica* de *E. stercoralis* de el biparasitismo con *E. histolytica*/*E. coli* y *E. nana*/*A. lumbricoides* y en el poliparasitismo se encontró el *histolytica*/*E. coli*, el *E. coli* / *G.lambli*a. La farmacoterapia para el helmintos fue realizada através del Albendazol 400mg y el Metronidazol 250mg en los casos de protozooses.

Frecuentemente deben lograrse estudios de este tipo para contribuir con la mejora en la calidad de la vida de las personas mayores que en nuestro país y en el mundo ellos están presentando un aumento en la longevidad, exigiendo una nueva manera de tener el cuidado por parte de los profesionales de salud.

LAS PALABRAS - LA LLAVE: Endoparasitosis; el tratamiento; mayor.

**IDENTIFICAÇÃO E TRATAMENTO DE ENDOPARASITOSE EM PACIENTES DA TERCEIRA IDADE
RESUMO**

As parasitoses intestinais ou endoparasitoses, decorrentes de protozoários e/ou helmintos representam um grave problema de saúde pública particularmente nos países subdesenvolvidos, onde se apresentam bastante disseminadas e com alta prevalência, decorrente das más condições de vida das camadas populacionais mais carentes. Diversos fatores influenciam no sentido de que exista esta situação: saneamento ambiental ausente ou deficiente, práticas de higiene inadequadas e condições precárias nas quais vivem milhões de pessoas constituem os mais importantes. O objetivo deste trabalho foi identificar e tratar endoparasitoses em pacientes da terceira idade. O estudo foi do tipo transversal e analítico com abordagem quantitativa e descritiva. A seleção dos participantes aconteceu no Serviço Municipal de Saúde (SMS), em Campina Grande-PB e os exames laboratoriais no Laboratório de Parasitologia do Centro de Ciências Biológicas e da Saúde da Universidade Estadual da Paraíba (UEPB), no período de março a agosto de 2008. Os resultados foram digitados em software, como o Excel (2003) e tratado no Epi-info 3.5.1 para Windows e descritos em números absolutos e percentuais. Dos 107 participantes, 32% encontravam-se parasitados. A maioria era do gênero feminino, com idade entre 60 – 69 anos, tinha renda mensal de 1–2 salários mínimos, era aposentado e beneficiado através dos serviços de coleta de lixo e rede de água encanada. As endoparasitoses detectadas foram: monoparasitismo com a *E. histolytica* e o *S. stercoralis*; biparasitismo com *E. histolytica*/*E. coli* e *E. nana*/*A. lumbricoides* e no poliparasitismo encontramos *E. histolytica*/*E. coli*/*G. lamblia*. A farmacoterapia para helmintoses foi realizada através do albendazol 400mg e o metronidazol 250mg nos casos de protozooses. Estudos deste tipo deverão ser realizados com frequência para contribuir com a melhoria na qualidade de vida dos idosos, que em nosso país e no mundo estão apresentando um aumento na longevidade, exigindo uma nova maneira de cuidar por parte dos profissionais de saúde.

PALAVRAS – CHAVE: Endoparasitoses; tratamento; idosos.

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