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Giardia Lamblia: Two Methods of Study in Schoolchildren. Havana 2019

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Abstract

There were selected 180 schoolchildren in General Medicine consultation, and there were indicated to them three serial stool, the clinical manifestations were gathered as well as the nutritional status, with the objective to perform the screening of Giardia Lamblia. Children with symptoms or signs also had the duodenal intubation. The feces method was not effective for the diagnosis of Giardia Lamblia, while duodenal intubation contributed a positivity of 98.3%, with a single negative case, its etiology was bacterial. There were no complications during the procedure. The thin children, stationary weight and abdominal pain prevailed.

Keywords: Giardia Lamblia; Intestinal parasitosis epidemiology; Child

Introduction

In the world population there are millions of people infested by parasites of different types, mainly protozoa and within them the Giardia Lamblia, which affects about 60% of the population [1-8].

It is indisputable that in recent times the frequency of Giardia Lamblia infection has increased considerably [7]. Intestinal parasitosis is more frequent in children, due to having biological and physiological conditions, and a greater opportunity for contact with parasites, so that morbidity is higher in childhood with manifest or not symptoms, which may be mild to moderate fundamentally in the first ten years of life.

In Cuba, Giardia Lamblia is a frequent parasitosis, which has displaced intestinal worms from the first places [1,6,7]. Giardiasis constitutes a medical scientific concern and is also a socioeconomic health problem of interest, since it produces negative effects on the nutritional status, physical, psychological development and immunity of children [6,7].

It is alarming the tendency of the increase of the symptoms and signs of giardiasis and the negativity of the stool analysis, for this reason we set out to evaluate the effectiveness of the stool method that is considered simple and not bloody, with duodenal intubation considered by some authors as traumatic and also determine their complications.

Method

A descriptive study was carried out in the months of June-July 2019, where 180 schoolchildren who attended the General Medicine consultation were randomly selected, and three serial feces were indicated, 60 of these who presented positive clinical symptoms were also given indicated duodenal intubation. The positivity of Giardia Lamblia was taken as a diagnostic and comparative criterion of both methods. Each infant was filled in a form (annex 1) with the variables of the study and the nutritional status was found according to the current tables (weight - height weight - age, size - age). The results obtained were tabulated by the simple counting method and the percentage was used as a measure.

Results

When comparing the two methods, it was observed that duodenal intubation is more effective because a positivity of 98.3% was obtained, while in stool it was 1.7% (Table 1). Of the 62 children with Giardia Lamblia 77.4% affected their nutritional status, 61.3% thin and 16.1% malnourished (Table 2).

When the clinical picture was related to the positivity of the complementary patients, it was

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Table 1: Positivity of Giardia lamblia according to complementary.

Complementary	Positive		Negative		Total	
	No	%	No	%	No	%
Stool	3	1.7	177	98.3	180	100
Duodenal intubation	59	98.3	one	1.7	60	100

Table 2: Relationship of nutritional status with giardiasis.

Nutritional status	No.	%
Thin	38	61.3
Undernourished	10	16.1
Normal weight	14	22.6
Total	62	100

Table 3: Clinical picture and positivity of the complementary ones.

Clinical picture	No.	%
Stationary weight	48	77.4
Abdominal pain	3. 4	59.8
Skin lesions	28	45.2
Chronic diarrhea	15	24.2
Nausea and vomiting	11	17.7

observed that stationary weight (77.4%) and abdominal pain (59.8%) were the most frequently encountered symptoms (Table 3).

Discussion

These results allow us to consider that the stool method is of very low effectiveness in relation to duodenal intubation where positivity greater than 95% was achieved, only one negative case was found by this method and it is because the etiology of its weight stationary was bacterial. We believe that a review of the technique of performing stool and the conditions in the sampling should be performed.

Parasitological studies have a fundamental component in the laboratory; however, it is known that no technique is complete enough to be considered universal because they are not able to detect all parasitic forms, all types of parasites.

It is appreciated that Giardia Lamblia mostly affected the nutritional status of children and that this sign was the main reason for the indication of both methods. Some authors report an important association between intestinal parasitism and malnutrition. However, others found no relationship between malnutrition and giardiasis.

With respect to the clinical picture and the positivity of the complementary ones, stationary weight and abdominal pain prevailed, symptoms that are closely related to the duodenitis produced by this parasite [6]. Duodenal giardiasis is usually accompanied by symptoms or signs that can be very subtle, such as simple anorexia or stationary weight, to a chronic diarrhea picture. Some suggest that symptomatology is not a good index of the presence of parasitic diseases, since there are false positives and negatives [6,7].

Conclusions

1. Greater positivity was achieved with duodenal intubation.
2. Duodenal intubation was more effective for the diagnosis of Giardia Lamblia than the stool method.
3. Stationary weight was the main clinical finding found.
4. Giardia Lamblia affected the nutritional status of children.

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