

Prevalence Of Intestinal Parasites Among School Children In Mubi North Local Government Adamawa State, Nigeria

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Abstract: *The prevalence of intestinal parasites among primary school pupils age between 0-15 years in Mubi north local government Adamawa state was investigated. The formalin ether concentration technique was used to examine the stool samples of 300 school children. Out of the 300 stool samples examined Ascaris lumbricoides had an overall prevalence of 237 (79%) Hookworm 245 (81%) Trichuris trichura 7 (2.3%) and entamoeba species 165 (55%). Male pupils were more affected than the female. Children between the ages of 6 and 10 years were the most infected by A. lumbricoides while those between the ages of 11 and 15 years were most infected by hookworm, Trichuris trichuria and Entamoeba species. There was a high prevalence of intestinal parasites infestation among the children examined in their study and this calls for urgent need to improve on good personal hygiene and environmental sanitation among school children in the study area, and improvement in treatment strategies.*

Keywords: *Instinal parasites, Ascari Lumbricoids, Trichuris trichuria, Entamoeba species, Mubi.*

I. INTRODUCTION

Intestinal parasites infection are serious public health problem which are usually associated with complications such as anaemia, growth retardation and other physical and mental health problems in children (WHO 2002). Majority of the world population affected by this infection are children especially those residing in the subtropical and tropical region with warm climatic conditions (khsraw, *et al* 2011) intestinal parasite infection are still serious public health problems amongst children in cosmopolitan, subtropical and tropical regions with warm climate like Nigeria. Various epidemiological studies showed that intestinal parasitic inflections among primary school children are more in the subtropics and tropic than temperate region and these is certainly due to environmental condition like poor personal hygiene, fiscal contamination of soil water, food, vegetable and presence of vector: in addition to temperature and moisture of the environmental that encourage the transmission of parasites among people in the community (Cheesbrough, 2004). (Uwaezuoke, *et al.*, 2006) (Bamaba, *et al* 2011) Although significant epidemiological studies has been carried

out on the prevalence of intestinal parasites among school children and adult globally including Nigeria, not much has been reported about most rural communities in Nigeria. This paper reported the prevalence of intestinal parasite. among primary school children in Mubi north local government area Nigeria.

II. METHODOLOGY

DESCRIPTION OF STUDY AREA AND STUDY POPULATION

Mubi metropolis is located between latitude $10^{\circ} 05^1$ and $10^{\circ} 30^1$ N of the equator and between longitude $13^{\circ} 12^1$ and $13^{\circ} 19^1$ E of the Greenwich meridian. It consist of two local government areas which occupy a land area of 192,307KM² and support a total population 260,009 people (national population census 2006).

COLLECTION AND EXAMINATION OF STOOL SAMPLE

Pupils were instructed on how to collect their stool with the help of their parents into clean sterile sample bottles and when they returned the bottles their gender and age was recorded on the sample bottle sample were examined by saline wet mount using formalin ether concentration method (Cheesbrough, 2004)

III. RESULTS

The result of this study showed that out of 300 pupils examined 262 had worm infection two hundred and thirty seven 237 (79%) had *Ascaris lumbricoides*, 245 (81.6%) Hookworm: 7(2.3%) *Trichuris trichuria* while 165 (55%) had *Entamoeba* species. children in the age range of 6-10 years had the highest prevalence of *A. lumbricoides* while Hookworm *Trichuris trichuria* and *Entamoeba* species were higher in the age range of 11-15 years male pupils were more affected than females (tables 1 and 2)

Intestinal Parasites	No. of Children Examined (Male)	No. of Children Examined (Male)	Total
<i>Ascaris Lumbricoides</i>	125 (83.3)	112 (74.6)	237 (79)
Hook Warm	140 (93.3)	105 (73.3)	245 (81.6)
<i>Trichuris Trichuria</i>	5 (3.3)	2 (1.3)	7 (2.3)
<i>Entamoeba Species</i>	90 (60)	75 (50)	165 (55)

N= 300, numbers in brackets are percentages.

Table 1: Prevalence of intestinal parasites among primary school pupils in Mubi North Adamawa State

Age Range	Number of pupils Examined	<i>Ascaris Lumbricoides</i>	Hookworm	<i>Trichuris Trichuria</i>	<i>Entamoeba Species</i>
0-5	50	34 (68)	35 (70)	Nil (0)	29 (58)
6-10	150	133 (88.66)	126 (84)	1 (0.01)	7 (0.48)
11-15	100	70 (70)	94 (94)	6 (6)	66 (66)

Numbers in bracket are percentage

Table 2: Prevalence of intestinal parasitic infection amongst the different age groups of school children in Mubi North

IV. DISCUSSION

The result of this study showed a high prevalence of intestinal parasitic infection amongst primary school pupil examined in Mubi north Adamawa State Cases of multiple parasitic infections among the individual pupils were observed this has been reported by Inabo and John (2010), the high prevalence of parasitic infection amongst these pupils may be as a result of poor disposal of faecal waste open defecating in various places of the school compound and environments or as

a result of poor toilet system and this encourages faeco-oral transmission of parasites, more so most of these children often walk bare footed to and from school and are exposed to contaminated soil and water. From this study there was very high prevalence of intestinal parasites, this finding agreed with the report of Rashid and co-workers on a rural and semi-rural communities in India (2011), the high prevalence of infection in males when compared to the females may be attributed to the fact that males are usually outdoors, it can also be associated with poor personal hygiene, poor eating habit and environmental sanitation this has been reported by earlier authors (Magamjo, *et al* 2009). Another factor responsible for the high prevalence of these parasite may be due to individuals ingesting viable cyst either through food or water this high prevalence could also be attributed to ignorance, poor sanitation, poverty and lack of proper medical care among others.

The presence of these intestinal parasites in the community is a public health problem these is need to prevent these by improving individual personal hygiene general sanitation and provision of adequate social amenities like pipe borne water and good toilet system.

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