

بسم الله الرحمن الرحيم

الاية

قال تعالى :

كَمَا أَرْسَلْنَا فِيكُمْ رَسُولًا مِنْكُمْ يَتْلُو عَلَيْكُمْ آيَاتِنَا وَيُزَكِّيكُمْ وَيُعَلِّمُكُمُ الْكِتَابَ وَالْحِكْمَةَ وَيُعَلِّمُكُم مَّا لَمْ تَكُونُوا تَعْلَمُونَ

صدق الله العظيم

سورة البقرة الآية 151

Dedications

To my family.....

To my teachers.....

For you.....

Acknowledgments

Frist of all, Ithank allah who made all thing possible.

I would like to express my gratitude and thanks to my supervisor Dr.M.Madani for his valuable suggestion and guidance during the study

I would like also to acknowledge to my lecturers and my colleagues in Sudan University, and every one who helped me.

Abstract

Cross-sectional study was conducted during period from March to October (2013) in Military hospital which is located in Khartoum State. The study was conducted to determine the association between *Blastocystis hominis* and IBS.

The study included one hundred thirty stool specimens. Three methods were used (direct wet preparation, formal ether concentration technique and modified trichrome stain).

The study revealed that 17 (21.3%) out of 80 patients with Irritable bowel syndrome (IBS) have *Blastocystis hominis* and 0% in the control group.

The results also showed that 11 (64.8%) of IBS patients with *Blastocystis hominis* is female and 6 (35.2%) were males.

The study showed the prevalence among age groups as follows:

15 (17.6%), 30(29.4%) and 35(53%) years old from 21 to 40 years old and more than 41 years old respectively.

This study indicates that the prevalence of B.hominis among patients with IBS is highly in the study area.

الخلاصة

اجريت الدراسة المستعرضة في الفترة ما بين مايو الى اكتوبر للعام 2013 في المستشفى العسكري بولاية الخرطوم . هدفت هذه الدراسة لمعرفة العلاقة بين طفيل البلاستوسيسيتس همونيز والقولون العصبي .

تضمنت الدراسة مائه وثلاثون عينة من الفسحة واستعملت ثلاثة طرق لمسح العينة (المسحة المباشرة ،المسحة بعد تركيز العينة والمسحة بعد صبغة العينة بالترايكروم).

اظهرت الدراسة ان 21 (21.3%) من 80 مصاب بقولون عصبي متهيج لديهم اصابة بطفيل البلاستوسيسيتس همونيز و(0%) عند الاصحاء.

وايضا خلصت الدراسة الي 11 (64.8 %) من الذين يعانون من قولون عصبي متهيج مع الاصابه بطفيل البلاستوسيسيتس همونيمز من الاناث و6 (35.2%) من الذكور.

وايضا اظهرت الدراسة الي ان معدل الانتشار وسط المجموعات العمريه كالاتي :

15 (17.6 %) 30 (29.4 %) و 35 (53 %) في المجموعات العمريه اقل من عشرين عاما، 21-40 عاما واكبر من واحد واربعين عاما علي التوالي.

خلصت الدراسة الي ان معدل انتشار طفيل البلاستوسيسيتس همونيز وسط المرضى بمتلازمة القولون العصبي عالي في المنطقة موضوع الدراسة .

list of contents

Subject	Page
الاية	I
Dedication	II
Acknowledgements	III
Abstract	VI
الخلاصة	VI
List of content	V1- VI
List of tables	VI
List of figures	VI
Chapter one: Introduction and Literature review	
1.1 Introduction	1
1.1.1 Intestinal parasites	2
1.1.2 Intestinal symptoms	3
1.2 Biology classification	3
1.2.1 <i>Blastocystis hominis</i>	3-4
1.2.1.1 Classification	5
1.2.1.2 Morphology	5-6
1.2.1.3 Pathothogencity	6
1.2.1.4 Life cycle:	7-8
1.2.1.5 Diagnosis of <i>Blastocystis hominis</i> :	9
1.2.2 Irritable bowel syndrome	9-10
1.2.2.1 Diagnosis of Irritable bowel syndrome	10-11
1.2.2.2 Manning criteria	11

1.3 Protozoan parasite and Irritable bowel syndrome	11
1.3.1 <i>Blastocystis hominis</i> and IBS	11-14
Objectives and rationale	
Rationale	15
Objectives	16
Chapter two: Material and methods	
2.1 Study design	17
2.2 Study area and study population	17
2.3 Study variables	17
2.4 Sampling and sample size	17
2.5 Methods	18
2.5.1 Direct wet preparation	18
2.5.2 Trichrome stain	18
2.5.3 Formal ether concentration technique	18-19
2.5.4 Quality control	19
2.6 Tool for data collection	19
2.7 Data analysis	19
2.8 Ethical consideration	19
Chapter three: Results	
3. Results	20-23
Chapter four: Discussion	
4. Discussion	24-25
Chapter five: Conclusions and recommendations	

5.1 Conclusions	26
5.2 Recommendations	26
References	
References	27-31

List of table	page
Table 4.1:frequency of infection by <i>Blastocystis hominis</i>	20
Table 4.2: frequency and Percent of <i>B.hominis</i> in IBS patient	21
Table 4.3: frequency and Percent of <i>B.hominis</i> in gender	22
Table 4.4 Relation between <i>Blastocystis hominis</i> and age group	23
List of figures	page
Figure 1.1:CDC diagram of <i>B. hominis</i> ‘ life cycle.	8