

Dedication

- *To my parents*
- *To my brothers and sisters*
- *And to my friends*

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List of table

<i>Table No.</i>	<i>Subject</i>	<i>Pages</i>
1	Patient gender incidence	53
2	Control gender incidence	54
3	Age distribution	55
4	Clinical data	56
5	Occupational distribution	57
6	Periportal fibrosis distribution	58
7	Liver size distribution (patient group)	59
8	Liver distribution (control group)	60
9	Distribution of portal vein diameter (control group)	61
10	Distribution of portal vein diameter (patient group)	62
11	Ascites incidence	63
12	Collaterals incidence	64
13	Spleen size (control group)	65
14	Spleen size (patient group)	66
15	Gall bladder wall thickening	67
16	Relationship between portal vein diameter (PHT) and the types of periportal fibrosis	68
17	Relationship between periportal fibrosis and liver size	69
18	Relationship between portal vein dilatation and ascites	
19	Relationship between portal vein dilatation and formation of collaterals	71

20	Relationship between periportal fibrosis and splenic size	72
21	Relationship between periportal fibrosis and GB wall thickening	73

List of figures

<i>Figure No.</i>	<i>Subject</i>	<i>Pages</i>
(2-1)	Compound waterbath scanner	4
(2-2)	Ultrasound real time scanner	5
(2-3)	Production of U/S	7
(2-4)	Relation between attenuation co-efficient and frequency	10
(2-5)	The component of pulse-echo imaging system	12
(2-6)	Transducer construction	12
(2-7)	The component of beam former	14
(2-8)	Construction of the image processor	14
(2-9)	Geographic distribution of schistosoma	18
(2-10)	Life cycle of schistosoma mansoni	22
(2-11)	The cercaria	23
(2-12)	The female lies in the gynaecophric canal of the male	23
(2-13)	Egg shape of schistosoma	23
(2-14)	Pipe stem periportal fibrosis	28
(2-15)	Diffuse periportal fibrosis	28
(2-16)	Collateral circulation of the extra hepatic portal circulation	31
(2-17)	Ascites	36
(2-18)	The scanning technique of the liver	42
(2-19)	Normal U/S appearance of the liver	42
(2-20)	U/S appearance of periportal fibrosis	42
(2-21)	Portal hypertention	45

(2-22)	Coma shaped portal vein	45
(2-23)	Scanning technique of spleen	45
(2-24)	Measurement of spleen	47
(3-1)	The scanning views	52

Abstract

This study is a practical and descriptive study which continued for two years and was carried out in Khartoum Teaching Hospital and ultrasound department in the college of Medical Radiologic Science. It discusses the protocol of ultrasound scanning in demonstrating of the complications of schistosoma mansoni.

Known cases of schistosoma mansoni (100 patients) were surveyed by ultrasound using Aloka scanner with 3.5 MHz probe. Abdominal ultrasound scanning were performed for all patients.

Ultrasound was used to demonstrate clearly the complications of schistosoma mansoni such as grades of periportal fibrosis, portal hypertention, splenomegaly ascites, formation of collaterals and gall bladder wall thickening except those which were in the chest and brain. The study showed that it is possible to correlate between the grades of periportal fibrosis and liver size, portal hypertention, splenic size and gall bladder wall thickening. The ultrasound appearance of the complications could be used as guidance for changing the scanning technique.

Fourty five patients (45 %) were noted to have pipe stem periportal fibrosis and fifty five patients (55%) were noted to have diffused periportal fibrosis. Twenty three patients (23%) had a mild portal hypertention, thirteen patients (13%) had a moderate portal hypertention and twenty one patients (21%) were found to have marked portal hypertention. Twenty six patients (26%) were found to have ascites while seventy four patients (74%) were found to have no ascites. On the other hand eighteen patients (18%) considered to have esophageal avarices, while eighty two patients (82%) were found to have no collaterals. Eleven patients (11%) were found to have no splenomegaly, twenty four patients (24%) had mild

splenomegaly, twenty eight patients (28%) had moderate splenomegaly and thirty seven patients (37%) were found to have gross splenomegaly. Forty patients (40%) were found to have thick wall gall bladder, while sixty patients (60%) were found to have normal wall.

Regarding the patients of pipe stem periportal fibrosis, the study found that (86.7%) of them had a normal liver size, (75.6%) had no portal hypertention, (42.2%) of them had a mild splenomegaly and (86.7%) had no gall bladder wall thickening. Regarding the patients of diffused periportal fibrosis, the study also found that (50.9%) of them were found to have shrunken liver, (38%) had marked portal hypertention, (63.6%) were found to have gross splenomegaly and (61.8%) had thickening of the gall bladder wall. The study also found that (80.7%) of the patients with marked portal hypertention, were found to have ascites and (88.8%) of the patients for the same group, were found to have collaterals, so according to the relation between all the complications, a protocol for scanning technique using u/s has been made.

ملخص الدراسة

تعتبر الواسة واسة و صفة ، و قد إستوت لمدة سنتين وأجريت بمستشفى الخوط م التعليمي و قسم الوجات و ق الصوتية بكلية علم الأشعة الطبية - بالخط م . و قد ناقشت الواسة الطويقة المثلى للتصوير بالوجات و ق الصوتية لوضيح مضاعفات ورض بلها سىا الأمعاء .

و قد تم فحص (100) ورض مصابين بوض بلها سىا الأمعاء بجهاز لوكا بذبذبة مقدارها 3.5 ميقاتر . و قد تم فحص البطن بالوجات و ق الصوتية لجميع المذكورين .

و قد أستخدمت الوجات و ق الصوتية لوضيح مضاعفات هذا الوض كلها مثل تليف للريد البابي ، و فط التوتر البابي ، تضخم الطحال ، استسقاء ، تكون الوالي و زيادة سمك جدار الوصلة الصفوية ما عدا تلك المضاعفات الوجودية في الصدر و المخ . و قد وضح الواسة أن بالإمكان الوافقة بين تليف للريد البابي و حجم الكبد و تليف للريد البابي و فط التوتر البابي ، و كذلك بين تليف للريد البابي و حجم الطحال ، و أخيراً بين تليف للريد البابي و زيادة سمك جدار الوصلة الصفوية . و يمكن إستخدام نتائج الوجات و ق الصوتية كدليل على تغيير تقنية المسح التصويري .

و من خلال الواسة إتضح أن (45%) من الوضى يعاؤوا من تليف للريد البابي ذو الساق الغلوني و (55%) يعاؤوا من تليف للريد البابي المنتشر و (23%) من الوضى يعاؤوا من فط التوتر البابي البسيط بينما (13%) يعاؤوا من فط التوتر البابي المتوسط و (21%) من الوضى وجد أنهم يعاؤوا من فط التوتر البابي الواضح . و اتضح ايضاً من خلال الواسة أن (26%) من الوضى يعاؤوا من إستسقاء بينما (74%) لم و جد عندهم هذه الحالة . و من الجانب الآخر و جد أن (18%) من الوضى يعاؤوا من والي في الوئي و (82%) منهم لا و جد عندهم والي و كذلك و جد أن (11%) من الوضى لا يعاؤوا من تضخم في الطحال بينما (24%) يعاؤوا من تضخم بسيط في الطحال ، و (28%) يعاؤوا من تضخم متوسط

و (37%) يعاؤا من تضخم شديد و اتضح ايضاً أن (40%) من الوضى يعاؤا من زيادة في سمك الوصلة الصفووية و (60%) لها سمك طبيعي. فيما يتعلق بالوضى المصابين بتليف للريد البابي ذو الساق الغلوني أثبتت الواسة أن (86.7%) منهم لهم حجم كبد طبيعي و (75.6%) لا يعاؤا من فط التؤتر البابي و (86.7%) منهم لهم سمك طبيعي لجدار الوصلة الصفووية و (42.2%) منهم يعاؤا من تضخم بسيط في الطحال . اما فيما يتعلق بالوضى المصابين بتليف للريد البابي المنتشر فقد أثبتت الواسة أن (50.9%) منهم يعاؤا من كبد ضامرة و (38%) يعاؤا من فط التؤتر البابي الواضح و (61.8%) يعاؤا من زيادة سمك جدار الوصلة الصفووية ، و (63.6%) يعاؤا من تضخم شديد في الطحال . و قد وأ ضحت الواسة ايضاً ان (80.7%) من الوضى الذين يعاؤن من فط التؤتر البابي الواضح يعاؤا ايضاً من إستسقاء و (88.8%) من وضى فط التؤتر البابي الواضح يعاؤا من والى .

و من خلال العلاقة بين كل مضاعفات بلهاوسيا الامعاء فقد تم عمل طويقة مثلى لتقنية المسح التصويري بالوجات الصوتية.

Contents

Contents	Pages
Dedication	I
Acknowledgement	II
List of tables	III
List of figures	IV
Abstract	V
Arabic Abstract	VII
List of contents	IX
<i>Chapter One : General Introduction</i>	
1-1 Introduction	1
1-2 Objectives of the study	2
<i>Chapter Two : Literature Review</i>	
2-1 Physical aspect of U/S	3
2-1-1 History	3
2-1-2 Production of U/S	6
2-1-3 Interaction of U/S with tissue	7
2-1-3-1 Reflection	8
2-1-3-2 Scattering	9
2-1-3-3 Diffraction	9
2-1-3-4 Attenuation	9
2-1-4 U/S Equipments	10
2-1-5 U/S frequency and resolution	16
2-2 Schistosomiasis	17
2-2-1 Epidominology	17
2-2-2 Life Cycle	19
2-2-3 Clinical Feature	24
2-2-4 Complications of Schistosomiasis	26
2-2-4-1 Periportal Fibrosis	26
2-2-4-2 Portal Hypertention	29
2-2-4-3 Splenomegaly	32
2-2-4-4 Ascites	34
2-2-4-5 Other Complications	37
2-2-5 Methods of diagnostic	38

2-3 U/S Appearance and technique of the complications	40
2-3-1 Periportal Fibrosis	40
2-3-2 Portal Hypertention	43
2-3-3 Splenomegaly	46
<i>Chapter Three : Material and Methods</i>	
3-1 Introduction	48
3-2 Area and duration of the study	48
3-3 Equipment used	48
3-4 Criteria for choice of methods	48
3-5 Patients and sampling	49
3-6 Source of data collection	49
3-7 Patients preparation for the examination	49
3-8 Scanning views	49
3-9 Grading of the complications	50
3-10 Data analysis	51
<i>Chapter Four : Results and Discussion</i>	
4-1 Results	53
4-1-1 Patients gender incidence	53
4-1-2 Age distribution	55
4-1-3 Clinical data	56
4-1-4 Residence distribution	57
4-1-5 Occupation distribution	57
4-1-6 Ultrasound findings	58
4-1-6-1 Periportal fibrosis distribution	58
4-1-6-2 Liver size distribution	59
4-1-6-3 distribution of portal vein	61
4-1-6-4 Ascites incidence	63
4-1-6-5 Collaterals incidence	64
4-1-6-6 Splenic size	65
4-1-6-7 Gall bladder wall thickening	67
Relationship between portal vein diameter (PHT) and the types of periportal fibrosis	68
Relationship between periportal fibrosis and liver size	69
Relationship between portal vein dilatation and ascites	70

Relationship between portal vein dilatation and formation of collaterals	71
Relationship between periportal fibrosis and splenic size	72
Relationship between periportal fibrosis and GB wall thickening	73
4-2 Discussion	74
<i>Chapter Five : Conclusion and Recommendation</i>	
5-1 Conclusion	78
5-2 Recommendation	80
References	81
Appendix 1: forms for recording results (patients group)	
Appendix 2: forms for recording results (control group)	
Appendix 3: contents of data collecting sheet (patients group)	
Appendix 4: contents of data collecting sheet (control group)	