

PREVALENCE OF HEPATITIS INFECTION AMONG SOM

THESIS

Submitted for Partial Fulfillment of M.D. Degree in Tropical Medicine

> Presented by Ossama Mohamed Hammad

M.B., B.Ch; M.Sc.

Under Supervision Of:

Prof.Dr. Mohamed Ali Madwar

Prof. and Chairman of Tropical Medicine Dept. Faculty of medicine, Ain Shams University

Prof. of Tropical Medicine Faculty of medicine Ain Shams University

Dr. Maha El-Tahawy

Faculty of medicine Ain Shams University

Prof.Dr. Mustafa Ali Habib Prof.Dr. Mohamed Fawzy Montaser

Prof. of Tropical Medicine Faculty of medicine Ain Shams University

Dr. Abd El Rahman Nabawy Zekri

Ass. Prof. of Clinical Pathology Lecturer of Virology and Immunology Cancer Biology Dept., National Cancer Institute Cairo University

> FACULTY OF MEDICINE AIN SHAMS UNIVERSITY E1919#







This work was supported by schistosomiasis Research Project Agreement between USAID and Egyptian Ministry of Health, Arab Republic of Egypt.

No., 05/04/51

INDEX

Part	Contents	Page
I	Introduction and Aim of work	1
II	Review of Literature:	
	• Virology	3
	• Epidemiology	14
	Clinical presentation and sequalae	27
	Diagnosis of HCV infection	41
	Pathogenesis and pathology	52
	Prevention and treatment	55
	Schistomosiasis and HCV infection	79
	Daibetes mellitus and HCV infection	84
	Lymphoma and HCV infection	87
	Chronic renal failure and HCV infection	91
III	Subjects and Methods	95
IV	Results	111
v	Discussion	159
VI	Summary and Conclusion	188
VII	Recommendation	193
VIII	References	194
IX	Arabic summary	



LIST OF TABLES

No.	Title	Page
1	Clinical characteristic features of 137 immunocompromised patients	124
2	Prevalence of HCV-Ab in 137 immunocompromised patients	125
3	Prevalence of HCV-RNA in 137 immunocompromised patients with positive HCV-Ab	125
4	Prevalence of HBsAg in 137 immunocompromised patients	126
5	Prevalence of anti-HBc in 137 immunocompromised patients	126
6	Univariate analysis of 47 hepatosplenic schistosomal patients	127
7	Liver function tests of 47 hepatosplenic schistosomal patients	129
8	Abdominal ultrasound of 47 hepatosplenic schistosomal patients	130
9a	Histopathological classification of 10 hepatosplenic schistosomal patients	131
9b	Liver biopsy feature of 10 hepatosplenic schistosomal patients	131
10	Univariate analysis of 30 diabetic patients	132
11	Liver function tests of 30 diabetic patients	134
12	Abdominal ultrasound findings of 30 diabetic patients	135
13	Univariate analyis of 30 Hodgkin's lymphoma patients	136
14	Liver function tests of 30 Hodgkin's lymphoma patients	138
15	Abdominal ultrasound findings of 30 Hodgkin's lymphoma	139
16	Univariate analysis of 30 chronic renal failure patients	140
17	Liver function tests of 30 chronic renal failure patients	142
18	Abdominal ultrasound findings of 30 chronic renal failure patients	143



LIST OF FIGURES

No.	Title	Page
$\frac{}{1}$	Management of chronic HCV patients	67
2	Detection of hepatitis B surface antigen	101
3	Detection of hepatitis B core antibody	106
4	Prevalence of HCV-Ab in 137 immunocompromised patients	144
5	Prevalence of HCV-RNA in 53 HCV-Ab positive immunocompromised patients	145
6	Prevalence of HBsAg in 137 immunocompromised patients	146
7	Prevalence of anti-HBc in 137 immunocompromised patients	147
 8	Liver biopsy (HCV and schistosomiasis)	148
9	Liver biopsy (HCV and schistosomiasis)	149
10	Liver biopsy (HCV and schistosomiasis)	150
11	Liver biopsy (HCV and diabetes)	151
12	HCV-RT PCR	152
13	HCV-RT PCR	153
14	Sonar (HCV and bilharziasis)	154
15	Sonar (coarse echopattern of liver)	155
16	Sonar (coarse echopattern of liver and ascites)	156
17	Sonar (liver with lymphoma)	157
18	Sonar (Hydronephrotic kidney)	158



Acknowledgment

First of all, thanks for "Allah" to whom I relate any success in my life.

I would like to express my deepest gratitude to **Prof. Mohamed Ali Madwar**, Professor and Head of Tropical Medicine Department, Ain Shams University, for his most kind help and advice throughout this work. His meticulous supervision, kind advice and great effort were invaluable.

I am deeply indebted to **Prof. Mustafa Ali Habib**, Professor of Tropical Medicine, Ain Shams University, he has gratefully given me a lot of his time and experience.

Special grateful thanks to **Prof. Mohamed** Fawzy Montaser, Professor of Tropical Medicine, Ain Shams University, for his valuable instructions, persistent support, close attention and encouragement.

It is of great pleasure to express my deep thanks to **Dr. Maha El-Tahawy**, Assis. Professor of Clinical Pathology, Ain Shams University, for her skillful help, wise advice and supervision of the laboratory part of the work.

I would like to express my sincere indebt and gratitude to Dr. Abd El-Rahman Nabawy Zikri, Lecturer of Virology and Immunology, National Cancer Institute, Cairo University, for his most appreciable advice and help throughout this work. My gratitude to him is greater than I could put in words.

I wish to express my thanks to Dr. Hala Talkhan, Assis. Professor of Clinical Pathology, Ain Shams University; to Dr. Mohamed El-Awady, Assis. Professor of Public Health, Ain Shams University; to Dr. Mohamed Abd El-Ghany, Assis. Professor of Internal Medicine and Nephrology, Ain Shams University, to Dr. Mohamed Kamal, Lecturer of Tropical Medicine, Ain Shams University; to Dr. Ahmed Mohi El-Din Zaki, Lecturer of Pathology, Ain Shams University and to Dr. Adel Awaad Moustafa, Lecturer of Tropical Medicine, El-Minia University, for their kind help and cooperation in the practical part of the study.

Many thanks also goes to Dr. Yehia Sultan, Director of Abbasseya Fever Hospital; to Dr. Nabil Iskander, Medical Research Specialist (NAMRU-3) to Dr. Rabha Toney, Specialist of Radiology, Abbasseya Fever Hospital, and to Mrs. Magda Erian, Ward Administrator, NAMRU-3, for their help and encouragement.

To all staff members of Tropical Medicine, Ain Shams University, who freely cooperated to make the work possible, I must record my sincere gratitude.