

DEDICATION

*To my parents, brothers, cousin and nephews,
to the spirit of all Muslims martyrs, who
gave up their souls willingly for the sake of
their religion.*

*To all malarious patients especially those
who contributed to this study, wishing them
a good health and a happy life.*

*To all those who offered their kind assistance
& support, I dedicate this study.*

ACKNOWLEDGEMENT

I would like to express my sincere thanks and gratitude to my learned supervisor Professor. Abubakr Ibrahim for his valuable supervision, encouragement & infinite support. I also wish to extend my thanks to Dr. Homoudi, the coordinator of the M.Sc Programme in Clinical Microbiology for his advices and helpfulness. My thanks & appreciation go to the technicians in Medani Teaching Hospital especially, Gazira Medical Laboratory, particularly, my colleague Inshirah, Similarly my gratitude and appreciation go to staff of Gazira University library.

I would also like to thank Professor. Mohammedani, Dean Faculty of Medical Laboratory Sciences, University of Gazira for his advices. Also Bakri Yousif, Abdel Rahman El Garafi, Almatari Ahmed, Laboratory Management Khartoum State, Najat Ahmed, technicians in Abraham Malik Teaching Hospital.

To Majid, Mojahid, Amna, Hagir, Ghada, Hanan and Mariam for their good assistance and help.

Last and not least my acknowledgement and thanks are extended to Dr. Adil and Ustaz Khalid for data analysis.

ABSTRACT

Pf infection maybe a cause of acute renal failure, whereas renal failure appears to be a common complication of severe malaria in adults, it seldom occurs in children.

A prospective study conducted during the period of February 2003 to May 2004, in which plasma levels of urea, creatinine, sodium and potassium of 40 malarious patients infected with *Plasmodium falciparum* were compared with and 30 apparently healthy individuals (non-malarious) as a control group their ages matched between 15-55 years. Both controls and patients were selected randomly from Gazira State Wad Medani teaching Hospital emergency, only urea was significantly raised in patients (33.5 ± 9.7 mg/dl versus 28.6 ± 8.5 P<0.05), whereas plasma levels of creatinine, sodium and potassium had showed non significant difference in malarious patients:

(0.9 ± 0.3 mg/dl versus 0.8 ± 0.1 , $P > 0.05$) for plasma creatinine .

(137.3 ± 7.2 mmol / versus, 138.5 ± 5.6 $P > 0.05$) for plasma sodium.

(3.56 ± 0.6 versus 3.56 ± 0.6 mmol/l, $P. > 0.05$) for plasma potassium.

This study concluded that there was no significant relationship between falciparum malaria hyperparasitaemia and acute renal failure.

ملخص الدراسة

أجريت هذه الدراسة التوقعية في الفترة من فبراير ٢٠٠٣ - حتى مايو ٢٠٠٤ م حول أوساط ومعدلات البولينيا، الكرياتينين، الصوديوم ، البوتاسيوم في بلازما الدم : العينة تتكون بعدد أربعين من مرضى الملاريا المصابين بطفيل " الفالسيبارم " ذو النسبة العالية.

كما تم اختيار ثلاثين فرداً آخرين من غير المصابين بالملاريا كعينة ضابطة ، كلتا العينتين تم إختيارهما عشوائياً من قسم حوادث الباطنية بمستشفى ود مدني التعليمي - بولاية الجزيرة ، ولوحظ أن البولينيا فقط قد سجلت ارتفاعاً ملحوظاً ذا دلالة معنوية بين المرضى (33.5 ± 9.7 ملجم / دسلتر مقابل 28.6 ± 8.5 ، بإحتمالية اقل من ٠.٠٥) ، بينما لم يسجل الكرياتينين، الصوديوم والبوتاسيوم أي اختلافات خلال المرض. (الوسط الحسابي \pm الانحراف المعياري عند مجموعة الدراسة مقابل المجموعة الضابطة) . (0.3 ± 0.9 ملجم دسلتر مقابل 0.8 ± 0.1 ، بإحتمالية اكبر من ٠.٠٥) . بالنسبة لبلازما الكرياتينين .

(137.3 ± 7.2 ملمول /لتر مقابل 138.5 ± 5.6 بإحتمالية اكبر من ٠.٠٥) . بالنسبة لبلازما الصوديوم.

(3.56 ± 0.6 مقابل 3.56 ± 0.6 ملمول /لتر ، بإحتمالية اكبر من ٠.٠٥) . بالنسبة لبلازما البوتاسيوم ، خلصت هذه الدراسة إلى انه ليس هنالك علاقة واضحة بين الإصابة بملاريا الفالسيبارم ذات معدل الطفيل المرتفع و الفشل الكلوي الحاد .

CONTENTS

Dedication	I
Acknowledgement	II
Abstract in English	III
Abstract in Arabic	IV
List of contents	V
List of tables	VIII
List of figures	IX
Abbreviations	X

Chapter one

Introduction & Literature review

1- Introduction	1
1-1 Malaria	3
1-1-1 Definition	3
1-1-2 Classification of Plasmodium	3
1-1-3 Life cycle	3
1-1-4 Transmission of infection	4
1-1-5 Genetic factors protecting against malaria	5
1-1-6 Pathophysiology of malaria	6
1-1-6-1 Sequestration	8
1-1-6-2 Cytoadherence	8
1.1.7 Pathogenesis	10
1.1.7.1 Definition	10
1.1.7.2 Pathogenesis of malaria	10
1.1.7.2.1 Effects on red cells and capillaries	11
1.1.7.2.2 Renal failure	11
1.1.7.2.3 Fluid space and electrolyte changes	12
1.1.7.2.4 Anemia	12
1.1.7.2.5 Coagulopathy and thrombocytopenia	12
1-1-7-6 Black water fever	13
1-1-8 Pathology	14
1-1-8-1 Definition	14
1-1-8-2 Pathology of malaria	14
1-1-8-2-1 kidneys	14
1-1-9 Clinical features	16
1-1-9-1 Uncomplicated malaria	16
1-1-9-2 Severe malaria	17
1-1-9-2-1 Complications of malaria due to <i>P. falciparum</i>	19
1-1-9-2-2 Malarial acute renal failure	20
1-1-10 Laboratory findings	21

1-1-10-1 Haematology	21
1-1-10-2 Acute phase proteins	21
1-1-10-3 Biochemistry	21
1-1-10-4 Cerebrospinal fluid CS F	22
1-1-11 Diagnosis	22
1-1-11-1 Blood smears	22
1-1-11-2 Intradermal smears	23
1-1-11-3 Other techniques	23
1-1-11-4 Postmortem Diagnosis	23
1-1-12 Complications of chronic malaria	23
1-1-12-1 Quartan nephropathy or nephrotic syndrome	24
1-1-12-2 Hyperreactive malarial splenomegaly	24
1-1-12-3 Burkett's lymphoma	24
1-1-13 Malaria in Sudan	25
1-2 The kidney	25
1-2-1 Functional anatomy	26
1-2-1 Renal functions	26
1-2-3 Investigations of renal disease or malfunction	27
1-2-3-1 Urea	27
1-2-3-2 Creatinine	29
1-2-3-3 Electrolytes sodium and potassium	30
1-2-4 Pathophysiology of renal diseases	33
1-2-5 Clinical manifestations of renal diseases	34
1-2-5-1 Glomerular diseases	34
1-2-5-2 Urinary tract infection	36
1-2-5-3 Calculi and nephrocalcinosis	36
1-2-5-4 Urinary tract obstruction	37
1-2-5-5 Acute renal failure	37
1-2-5-6 Chronic renal failure	40
1-2-6 Complications of chronic renal failure	42
1-2-7 Replacement of renal function	42
1-2-7-1 Haemodialysis	43
1-2-7-2 Haemofilteraion	43
1-2-7-3 Peritoneal dialysis	43
1-2-7-4 Transplantation	43
1-3 Rational & Justification	44
1-4 Objectives	44
1-5 Literature review	44

Chapter two

Material & Methods	53
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2-1 The study groups	53
2-2 Venipuncture	54
2-3 Collection specimens	54
2-4 Examination of blood for malaria parasites	55
2-4-1 Identification of malaria in Giemsa stained films	55
2-4-2 Diagnosis of malaria by rapid immunodiagnostic strip tests	55
2-5 Estimation of blood urea	56
2-6 Estimation of serum creatinine	58
2-7 Estimation of sodium and potassium	59
2-8 Analytical methods used in the study	60
2-9 Quality control	60
2-10 Analysis of data	61
<i>Chapter three</i>	
Results	62
<i>Chapter four</i>	
Discussion and conclusion	71
Recommendations	75
References	76
Questionnaire	82

LIST OF TABLES

Table number	Page
1-1 Causes of attired serum urea and creatinine concentration other than renal function	38
1-2 Criteria for distinction between pre-renal and intrinsic renal dysfunction	39
1-3 Some causes of acute tubular necrosis	39
3-1 Comparison of the percentage between malaria diagnosed by blood film and I C T of the study group	62
3-2 The percentage of number of malarial attacks during the last three years	63
3-3 The classification of malaria according to severity of infection	63
3-4 History of chloroquine resistance	64
3-5 The percentage of cases being admitted to the hospital before	64
3-6 The percentage of the time of cure after treatment	64
3-7 Comparison between the means of plasma urea in the control and study group (malarious patients)	65
3-8 Comparison between the means of plasma creatinine in the control and study group (malarious patients)	65
3-9 Comparison between the means of plasma sodium in the control and study group (malarious patients)	66
3-10 Comparison between the means of plasma potassium in the control and study group (malarious patients)	66

LIST OF FIGURES

Figure number	Figure title	Page
1-1	Malaria parasite life cycle	46
1-2	Life cycle of <i>Plasmodium falciparum</i>	47
1-3	<i>Plasmodium falciparum</i>	48
1-4	The complex patho physiology of <i>P. falciparum</i>	49
1-5	Anatomical relationship of the kidney	50
1-6	A single nephron main parts	51
1-7	Schematic cross section a glomerulus	52
3-7	Comparison between the means of plasma urea in the control and study group (malarious patients)	67
3-8	Comparison between the means of plasma creatinine in the control and study group (malarious patients)	68
3-9	Comparison between the means of plasma sodium in the control and study group (malarious patients)	69
3-10	Comparison between the means of plasma potassium in the control and study group (malarious patients)	70

ABBREVIATIONS

A s	Haemoglobin A S
C D	Crystalline of differentiation
I g m	Immunoglobulin M
I g G	immunoglobulin G
C3	Complement element three
C4	Complement element four
G	Gram
μ l	Microlitre
%	Percent
M L	Milliliter
Kg	Kilogram
Mg /dl	Milli gram per deciliter
°C	Degree centigrade
>	More than
<	Less than
DNA	Deoxyribonucleic acid
RNA	Ribonucleic acid
CM	centimeter