ELECTROENCEPHALOGRAPHIC CHANGES IN INSULIN DEPENDENT DIABETES MELLITUS IN CHILDREN

THESIS

SUBMITTED IN PARTIAL FULFILLMENT OF
MASTER DEGREE IN PEDIATRICS

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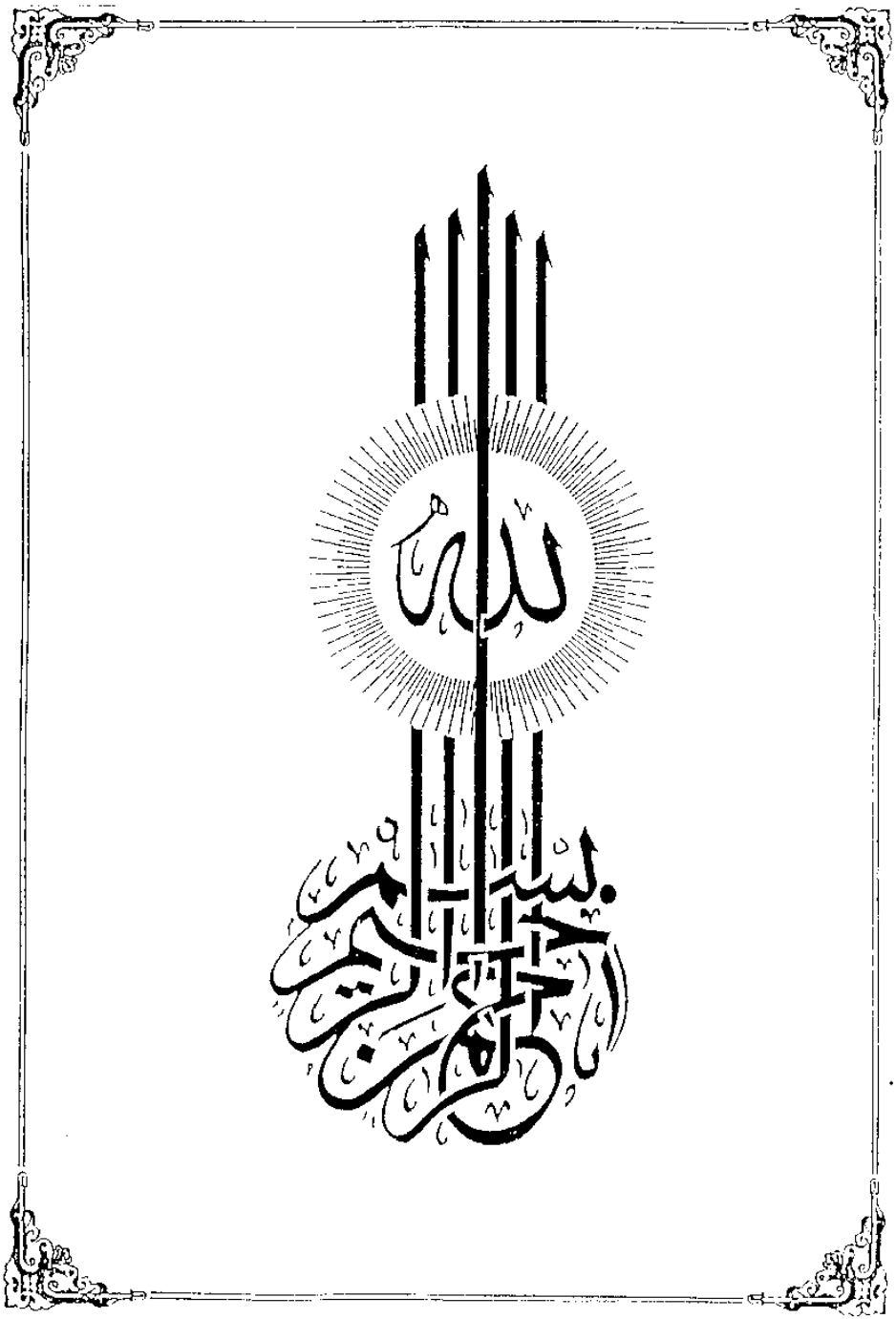
1993



TO:

MY PARENTS,
MY WIFE
MY DAUGHTER

ACKNOWLEDGEMENT

Words cannot express deep thanks and gratitude to **PROFESSOR DR. MONA ABDEL KADER SALEM** Professor of Pediatrics, Faculty of Medicine, Ain Shams University, for giving me the priviledge of working under her supervision, for her continuous encouragment, her patience and kind guidance throughout the whole work.

I am also indebted to **PROFESSOR DR MONA ABDEL HAMID RAAFAT** Assistant Professor of Neurology, Faculty of Medicine, Ain Shams University who was kind enough to devote me much of her time and valuable advice, experience and guidance

I am also grateful to **PROFESSOR DR MOHSSEN SALEH EL ALFY,** Assistant Professor of Pediatrics, Faculty of Medicine, Ain Shams, University for his great help and cooperation in the accomplishment of this work.

My deep thanks to **DR AZZA ABDEL GAWAD TANTAWI** Lecturer of Pediatrics, Faculty of Medicine Ain Shams, University, for her great patience and sincere help throughout the whole work.

My cordial thanks to DR FOUAD FETOUH ATIA, Lecturer of Biochemistry, Faculty of Pharmacy, Al Azhar University for his great help and cooperation.

My deep thanks to DR. SAFINAZ A.EL-HABASHY Lecturer of Pediatrics, Faculty of Medicine Ain Shams University, for giving the idea of the thesis

Last, but by no means least, I wish to thank my colleagues in the Diabetes Clinic of the Children's Hospital, Ain Shams University and my dear patients and their families, without their help this work would not have been possible.

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LIST OF ABBREVIATIONS

DK	Diabetic Ketosis
DKA	Diabetic Ketoacidosis
DM	Diabetes Mellitus
EEG	Electroencephalogram
FCPD	Fibrocalculous pancreatic diabetes
HBAIC	Glycosylated Hemoglobin
HZ	Hertz
IDDM	Insulin dependent diabetes mellitus
JPTS	Juvenile pancreatitis tropical syndrome
MRDM	Malnutrition related diabetes mellitus
PDPD	Protein deficient pancreatic diabetes
S.D	Standerd deviation
S.E	Standerd error

INTRODUCTION AND AIM OF THE WORK

INTRODUCTION

Diabetes mellitus is one of the commonest endocrinal diseases in childhood. It is classified into three forms, type I diabetes, type II diabetes and secondary diabetes. The basic cause of type I diabetes in childhood is the sharply diminished secretion of insulin.

(Genuth, 1983).

Although basal insulin concentrations in plasma may be normal in newly diagnosed patients insulin production in response to a variety of potent secretagogues is blunted and usually disappears over a period of months, to years rarely exceeding 5 years. (Sperling, 1988).

Type I diabetes is characterized by increased frequency of complications (Brittle diabetes). Among the important complications are the neurological complications. (Feingold, 1984).

EEG abnormalities constitute one of the neurological complications which are suspected to occur during the course of type I diabetes mellitus. The hypoglycemia and ketoacidosis which occur in the type I diabetes are the

major factors incriminated in the occurrence of the EEG changes. These EEG changes may vary between simple transient forms to severe and permanent EEG sequelae.

(Lerman et al., 1977).

AIM OF THE WORK

The aim of this work is to study the electroencephalographic changes induced in insulin dependent diabetes mellitus and its correlation to the course of the disease as well as to the frequency and severity of episodes of diabetic ketoacidosis and hypoglycemic attacks.