Ain Shams University
Faculty of Medicine
Dept of Neuropsychiatry

DEPRESSION AND FATIGUE IN A SAMPLE OF EGYPTIAN PATIENTS WITH MULTIPLE SCLEROSIS

Thesis submitted for partial fulfillment of master degree
In Neuropsychiatry

Presented by

Seham Fathy Abd Elgawad ELKatan

M.B.B.Ch Faculty of Medicine, Al Azhar University, 2006

Resident in Gamal Abd-Elnaser Hospital, Alexandria

Under supervision

Prof. Safeya Mahmoud Effat

Professor of Psychiatry
Faculty of Medicine, Ain Shams University

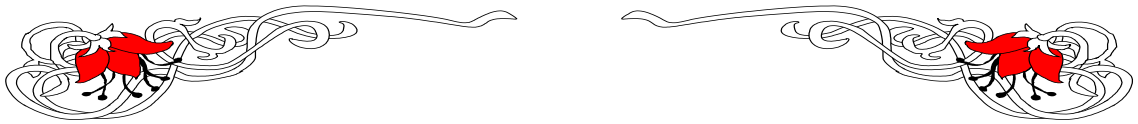
Dr. Hanan M.EAzzam

Assistant Professor of Psychiatry
Faculty of Medicine, Ain Shams University

Dr. Ali Soliman Shalash

Assistant Professor of Neurology
Faculty of Medicine, Ain Shams University

Faculty of Medicine
Ain Shams University
2013



Acknowledgement

Thank to **Allah**

for

accomplishment of this work

I wish to express my deepest gratitude to all those who assisted me to complete this work.

I am greatly indebted and grateful to **Professor Dr. Safeya Mahmoud Effat**, Professor of Psychiatry, Faculty of Medicine, Ain Shams University, for her unlimited help and continuous insistence on perfection, without her constant supervision, this thesis could not have achieved its present form.

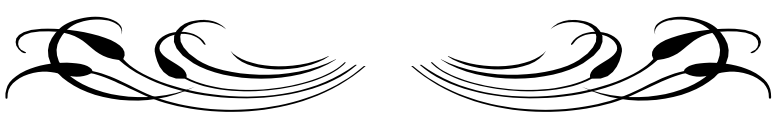
I would like to express my deepest gratitude and appreciation to **Dr. Hanan M.EAzzam**, Assistant Professor of Psychiatry, Faculty of Medicine, Ain Shams University, for her supervision and encouragement and for her kindness throughout the work.

I would like to thank the sincere help, guidance and supervision of **Dr. Ali Soliman Shalash**, Assistant Professor of Neurology, Faculty of Medicine, Ain Shams University, for fruitful suggestions and wise guidance created this thesis.

I wish to extend my appreciation to my professors, colleagues and friends who inspired and supported me through this work.

Never to forget thanking all the patients participated patiently to accomplish this work,

No words can express my affection and gratitude to my great late father, my mother, my husband, my two beautiful daughters and my sisters, brothers;



whom I love so much, for without them around I would not be able to move forward in my life.

LIST OF CONTENTS

LIST OF TABLES

LIST OF FIGURE

LIST OF ABBREVIATIONS

ADEM	Acute disseminated encephalomyelitis
ANA	antinuclear antibody
ANCA	antineutrophil cytoplasmic antibody
BDI	Beck depression inventory
CADASIL	Cerebral autosomal dominant arteriopathy with subcortical and leukoencephalopathy
CBT	cognitive behavioural therapy
CIS	clinical isolated syndrome
CNS	central nervous system
CSF	Crepro spinal fluid
ECT	Electroconvulsive therapy
EDSS	Expanded Disability Status Scale
ESR	erythrocyte sedimentation rate
FS	Functional Systems
FSS	Functional System Sc
HLA	human leukocyte antigen
HPA	hypothalamicpitutary-adrenal
HRQOL	health related quality of life
IEED	involuntary emotional expression disorder
IFN	Interferon
IL	Interleukin
IV	Intravenous
LHON	Leber's hereditary optic neuropathy
MACFIMS	Minimal Assessment of Cognitive Dysfunction in MS
MAO	monoamine oxidase

MDEM	multiphasic disseminated encephalomyelitis
MDFI	Multidimensional Fatigue Inventoray
MHC	major histocompatibility complex
MRI	magnetic resonance imaging
MS	Multiple sclerosis
MSD	MS depression
MSF	MS fatigue
MSQLI	Multiple sclerosis quality of life
PAS	pathognomic period acid-Schiff
PBA	Pseudo bulbar affect
PCR	polymerase chain reaction
PPMS	Primary progressive MS
PRISMS	Prevention of Relapses and disability by Interferon beta 1-a Subcutaneously in MS
QOL	quality of life
RIMAs	reversible inhibitors of MAO-A
RRMS	relapsing-remitting Multiple sclerosis
RT	relaxation training
SBE	Sub acute bacterial endocarditic
SF-36	Health status questionnaire
SNRIs	serotonin nor-adrenaline reuptake inhibitors
SPMS	secondary progressive MS
SSRIs	selective serotonin reuptake inhibitors
TCAs	tricyclic antidepressants

INTRODUCTION

Multiple sclerosis (MS) is a chronic disease of the central nervous system (CNS) which affects women more than men. The disorder is most commonly diagnosed between ages 20 and 40 years, but can be seen at any age.MS is caused by damage to the myelin sheath, the protective covering that surrounds nerve cells. When this nerve covering is damaged, nerve impulses are slowed down or stopped. The nerve damage is caused by inflammation. Inflammation occurs when the bodies own immune cells attack the nervous system. Repeated episodes of inflammation can occur along any area of the brain, optic nerve, and spinal cord. Researchers are not sure what triggers the inflammation. The most common theories point to a virus or genetic defect, or a combination of both. Geographic studies indicate there may be an environmental factor involved. **(Calabresi, 2007)**.

Worldwide 2.5 million people have been diagnosed with MS. In the United States (US) approximately 10.000 to 15.000 new cases are diagnosed every year **(Polman et al, 2005)**. In Egypt approximately 25.000 cases were diagnosed till now **(Eltamawy, 2010)**. Studies in MS have drawn attention to the multiplicity of Domains that may be compromised by the disease and the effects of this compromise on ability to cope. As expected, people with MS, especially those with a progressive course, report reduced physical functioning compared to the general population, **(Amato et al, 2001)**. They are more likely to suffer fatigue and depression than general population. Qualify of life usually affected in patient with multiples sclerosis as it a disease usually associated with neurological disability, fatigue and Depression **(Tsivgoulis et al, 2007).** Symptoms vary, because the location and severity of each attack can be different. Episodes

can last for days, weeks, or months. These episodes alternate with periods of reduced or no symptoms (remissions).Fever, hot baths, sun exposure, and stress can trigger or worsen attacks. It is common for the disease to return (relapse). However, the disease may continue to get worse without periods of remission. Because nerves in any part of the brain or spinal cord may be damaged, patients with multiple sclerosis can have symptoms in many parts of the body **(Calabresi, 2007)**

Neurologic symptoms as Loss of balance, Muscle spasms ,Numbness or abnormal sensation in any area and Problems moving arms or legs etc..Bowel and bladder symptoms: as Constipation and stool leakage, Difficulty beginning to urinate, frequent need to urinate and Strong urge to urinate etc...Eye symptoms: as Double vision. Numbness, tingling, or pain as Facial pain and Painful muscle spasms... Sexual symptoms: as Problems with erections, Problems with vaginal lubrication… Speech and swallowing symptoms: as Slurred or difficult-to-understand speech, Trouble chewing and swallowing **(Calabresi, 2007).**

Depression May be caused by the pathological process of MS. Hence it is considered as an organic brain syndrome as MS may destroy the insulating myelin that surrounds nerves that transmit signals affecting mood. Depression can also be a side effect of some drugs used to treat MS, such as steroids or interferon **(Zephir et al, 2003)**. Depression may be also the result of a difficult situation or stress. It is easy to understand how having MS, with its potential for progressing to permanent disability, can bring on depression. **(Arnett et al, 2008).**

Fatigue is the most common symptom of multiple sclerosis (MS), affecting at least two thirds of patients. Furthermore, nearly half of patients describe MS fatigue as the most disabling feature of the disease. Fatigue

clearly impairs the quality of life of patients with MS. The cause of MS fatigue is unknown; the Phenomenon cannot be adequately explained by physical disability, although it is frequently associated with depression **(RohitBakshi, 2003).**

RATIONALE OF THE STUDY

Depression is common in people with multiple sclerosis (MS).

It affects up to half of all people with MS at some point during their illness. Fatigue is also most common symptom in MS. Neurological disabilities are common complication of MS. In fact, symptoms of depression, fatigue and associated disabilities can be severe enough and require for medical assessment and intervention. Moreover poor quality of life is greatly influenced by depression, fatigue and associated disabilities. MS affects about 25.000 patients in Egypt, yet very few studies are done in psychiatric complication of MS in Egypt and the Arab countries.

AIM OF THE WORK

1. To determine the rate of co-morbidity between MS, depression and fatigue.
2. To study the impact of depression, fatigue and disabilities on quality of life in a sample of Egyptian adult patients with MS.
3. To investigate the correlation between this co-morbidity and clinical characteristics of these patients.