# "MENTAL DISORDERS DUE TO A GENERAL MEDICAL CONDITION" AMONG LONG STAY PATIENTS

### THESIS SUBMITTED FOR PARTIAL FULLFILMENT OF MASTER DEGREE IN NEUROPSYCHIATRY

PRESENTED BY:
SALLY IBRAHIM NOBY
MB.B.CH
AIN SHAMS UNIVERSITY

#### SUPERVISED BY:

#### PROF. NAGLAA M. NAGY EL-MAHALLAWY

PROF. OF NEUROPSYCHIATRY FACULTY OF MEDICINE AIN SHAMS UNIVERSITY

#### DR. EMAN IBRAHIM ABO-EL-ELA

ASSIST. PROF. OF NEUROPSYCHIATRY FACULTY OF MEDICINE AIN SHAMS UNIVERSITY

#### DR. DOAA AHMED KHALIFA

LECTUER OF NEUROPSYCHIATRY
FACULTY OF MEDICINE
AIN SHAMS UNIVERSITY

2006

## بسم الله الرحمن الرحيم

# إقالوا سبحانك لا علم لنا إلا ما علمتنا إنك أنت العليم الحكيم}

#### **CONTENTS**

		Pag
<b>♣</b> Acknow	vledgement	
4 List of A	Abbreviations	
<b>↓</b> Introdu	ction	1
♣ Aim of	the work	4
<b>♣</b> Review	of Literature:	
Chapter I	: Definition and classification of mental disorders due to a general medical condition.	5

#### <u>Diagnosis</u>

Chapter II	: Epidemiology of mental disorders due to a general medical condition.	1
Chapter III	: Etiology and pathophysiology of mental disorders due to a general medical condition.	1
Chapter IV	: Clinical pictures of mental disorders due to a general medical condition.	3
Chapter V	: Investigations of mental disorders due to a general medical condition.	7
Chapter VI	: Differential diagnosis of mental disorders due to a general medical condition.	8
Chapter VII	: Management of mental disorders due to a general medical condition.	9
<b>↓</b> Subject	ts and methods	1
<b>♣</b> Results		1
Discuss	ion	1
<b>♣</b> Conclus	sion	1
<b>♣</b> Summa	ıry	1
<b>♣</b> Recomi	mendation	1
4 Append	lix	1
<b>♣</b> Referen	ices	1
<b>∔</b> Arabic	summary	

#### Acknowledgement

I wish to express my deep thanks and profound gratitude to Professor Dr. **Naglaa EL-Mahlawy**, professor of neuropsychiatry, Faculty of medicine, Ain Shams University for suggesting and choosing this topic and her motherly attitude for help, guidance, excellent supervision, kind support and deep enthusiasm, without her assistance, instructions and advices this work would not be exist.

I would like to thank Dr. Eman Abo EL-Ella, assistant professor of neuropsychiatry, Ain Shams

University, Faculty of medicine, for her help and advice, and guidance all through the work.

I am deeply indebted to Dr **.Doaa Khalifa** lecturer of neuropsychiatry, Ain Shams University, Faculty of medicine, for her meticulous revision of the work, constructive criticism, I would like that she join us today.

I sincerely appreciate the help that I received from Professor Dr. **Mohammad EL- Banoby** professor of geriatric and neuropsychiatry, Faculty of medicine, Ain Shams University.

I would like to dedicate this topic to my father (my God bless his soul ), I would like to thank my mother, brother and my dear friends for their help and warm wishes.

#### **List of Abbreviations**

ABG	Arterial blood gases
BPD	Bipolar disorder
CAG	Cysteine-adenosine – guanine
CAT	Computerized axial tomography
CBC	Complete blood count
CHE1	Choline esterase inhibitors
CNS	Central nervous system
CO	Carbon monoxide
CRS	Catastrophic reaction scale
CSF	Cerebrospinal fluid
DLB	Dementia with Lewy Bodies
DSMIV TR	Diagnostic and statistical manual fourth edition text
	revised
ECG	Electrocardiogram
ECT	Electroconvulsive therapy
EEG	Electroencephalogram

#### <u>Diagnosis</u>

ECD	T 4 4 1' 4 4'
ESR	Erythrocyte sedimentation rate
F	Female
GHB	Gamma hydroxyl butrate
GHD	Growth hormone deficiency
GOAT	Galverston orientation and amnesia test
HIV	Human immunosuppressive virus
HTLV III	Human T-Lymphotropic viruses
ICD	International classification of disease
IV	Intravenous
LAV	Lymphadenopully associated virus
LSD	Lysergic acid diethylamide
M	Male
MD	Major depression
MMSE	Mini-mental state examination
MR	Mental retardation
MRS	Magnetic resonance spectroscopy
MS	Multiple sclerosis
NOMD	Non- Organic mental disorder
NS	Non-significant
NSAIDS	Non-steroidal anti-inflammatory drugs
OMD	Organic mental disorder
PCP	Phencyclidine
PD	Personality disorder
PEG	Pneumoencephalography
PET	Positron emission tomography
RPR	Reactive plasma regain
S	Schizophrenia
SLE	Systemic lupus erythromatosis
SPET	Single photon emission tomography
SSRI	Selective serotonin reuptake inhibitors
T4	Free thyroxin
TB	Tuberclosis
TBI	Traumatic brain injury
TSH	Thyroid stimulating hormone
UK	United Kingdom
VCJD	Variant creutzfeldt jakob disease
VDRL	Venereal disease research laboratory
VHL	Von hippel-lindau syndrome
	11

#### Aim of the work:

- 1. To review the available literature on "mental disorders due to a general medical condition".
- 2. To diagnose "mental disorders due to a general medical condition" in long stay patients.
- 3. To highlight on the recommendations regarding those patients.

#### <u>INTRODUCTION</u>

Imagine a world in which many of the people suffer from psychiatric symptoms for most of the time and very few live out their lifespan without suffering periods of significant psychiatric illness. Many medical illnesses cause dysfunction in mood, thinking and behavior and may present as depression or mania, anxiety disorders, paranoid disorders, schizophreniform disorders, or confusional states.(Pasnau,1989). Caine & Lyness(2000) reported that general medical condition may be presented by different types of mental disorders: delirium, dementia, amnestic disorder, schizophrenia, mood disorder, catatonic disorder, personality change.

Many patients diagnosed as having a mental disorder in fact have a physical disorder that is causing the psychiatric manifestations. Many more physical disorders cause psychiatric symptoms than was thought to be the case in the previous decade. Psychiatrists are more likely than non psychiatric physicians to over look an underlying physical disorder. (Pasnau,1989). Evaluation of patients who

present to hospitals or physicians with altered behavior and/or mentation can be time-consuming and difficult and may lead to symptoms being quickly and prematurely dismissed as psychiatric in nature. According to the Diagnostic and Statistical Manual of Mental Disorders (DSM), the psychiatric presentation of a medical illness is classified as a "mental disorder due to a general medical condition." These disorders are characterized by the symptoms that presence of mental are the direct an underlying medical condition. consequences of Therefore, understanding common psychiatric symptoms and the medical diseases that may cause or mimic them is of utmost importance. Failure to identify these underlying causal medical conditions can be potentially dangerous because serious and frequently reversible conditions can be overlooked. Proper diagnosis of a psychiatric illness necessitates investigation of all appropriate medical causes of the symptoms.

(Dooker, 2004).

This assessment is not performed in a vacuum but occurs in the context of the patients' medical history and physical examination. Laboratory studies supplement the history and examination. The goal of the assessment is to identify causative factors that contribute to the patients current symptoms. When psychiatric symptoms are found to be due to general medical condition, initial efforts are focused on the treatment of the underlying condition. (Candel,et.al,2003).

Psychiatric disorders due to general medical condition are observed in disease in these categories: neurological, metabolic and endocrine, infectious and inflammatory and nutritional deficiency. (Currier, et al., 2005).

The following table, done by Hillard & Zitek (2004), is a nonexhaustive list of the common features of organic disease organized by the primary psychiatric symptoms.

#### <u>Diagnosis</u>

# Types of psychiatric illness and associated medical disease states: (Hillard & Zitek, 2004):

Illness	Defining factors	Causative disease states
General organic	Appendix 1	Vitamin deficiency (B12)
mental syndromes		Dementia Wilson's disease
		Neurosyphilis
		Leukodystrophies
		Neurodegenerative disorders
		Chronic meningitis
		Heavy metal poisoning
		Infections (encephalitis,
		meningitis)
	-Normal function prior to	structural lesions (neoplasm,
Psychosis	illness	calcification)
	-Age greater than 40	Biochemical or physiological
	and sudden onset suggest	disturbance
	medical cause	Lupus cerebritis
	-Hallucinations or delusions	Temporal lobe epilepsy
	often present	Medication /intoxicants
Mania	Elderly onset	Medications /intoxicants
		Frontal-lobe syndromes
		Multiple sclerosis
		Epilepsy
		Infection Wilson's disease
		Cerebrovascular syndromes
		Cerebro vascular syndronies
<b>.</b>		
Delirium	Elderly patients	Almost always medical
		Medications/intoxicants
Depression	Elderly patients	Epilepsy
_	Literity patients	Parkinson's disease
		Stroke
		Frontal-lobe syndromes
		Multiple sclerosis
		Cushing's disease

		Major organ failure Endocrine disorders Metabolic disorders Medications/intoxicants
Anxiety	-If more than 35 years old and no clear psychological precipitant, medical cause should be suspected -prominent anxiety panic attacks -obsession compulsion.	Endocrine disorders Metabolic disorders Stroke Parkinson's disease Cardiovascular (angina) Pulmonary (COPD, asthma) Medications/intoxicants

#### Chapter 1

#### **Definition and classification**

<u>Definition of mental disorders due to a general</u> medical condition:

DSM-IV-TR defines a mental disorder due to a general medical condition as a syndrome "characterized by the presence of mental symptoms that are judged to be the direct physiological consequence of general medical condition". The term organic, as used to define these mental disorders before DSM-IV, often suggested structural lesion identifiable as such.(Drooker,2004).

## Classification of mental disorders due to general medical condition:

Psychiatric illnesses and diseases are classified into a diagnostic scheme or 'nosology'. The prevailing ideas are exemplified in the United States and research communities by the regularly updated editions of the Diagnostic and Statistical Manual (DSM) of the American Psychiatric Association and in Europe (and for more epidemiological

purposes) by the International Classification of Disease (ICD). (Charlton&Falston,1998).

The commonly used diagnostic scheme in clinical practice owes much to DSM and ICD, but also continues to make other distinctions which lack 'official' sanction. So the systems in practice includes some of the familiar (although controversial) distinctions between organic and 'functional' psychoses; between schizophrenia and the 'affective' disorders; between unipolar and bipolar (manic-depressive) affective disorders; psychosis and neurosis and the personality disorders.(David,1993).

DSM-IV-TR defines a mental disorder due to a general medical condition as a syndrome "characterized by the presence of mental symptoms that are judged to be the direct physiological consequence of general medical condition". The term organic, as used to define these before DSM-IV, often disorders structural lesion identifiable as such. The term due to and induced imply a shift in focus to physiological and etiology. DSM-IV-TR molecular In multiaxial classification of mental disorders due to general medical condition, the mental disorder is coded on Axis I, and the physical disorder is coded on Axis III. (Wise& Rundell, 2002).

The first edition of the DSM(DSM-I) was introduced in 1952, dividing mental illness into two categories: those without clear physical or structural cause and those with identifiable acute or chronic brain impairment. Few years later in 1968; the second edition of the DSM (DSM-II) maintained this dichotomy, with the latter group of disorders believed to be associated with cognitive disturbance, including memory and judgment impairment. Introduced in 1980, DSM-III defined organic disorders as those "associated with transient or permanent dysfunction of the brain". DSM-III and DSM-III-R expanded the array

of subtypes of organic illness, adding categories for symptoms, hallucinosis, delusions, mood symptoms, and personality disturbances, in addition to cognitive disturbances such as dementia and delirium. However, DSM-IV and DSM-IV-TR, abandoned the term organic to avoid the misconception that nonorganic, functional disorders are described as primary mental disorders, and organic disorders have been divided into those induced by identifiable medical conditions(due to general medical condition). In (DSM-IV-TR) multiaxial classification of mental disorders due to a general condition, the mental disorder is coded on Axis I and the physical disorder is coded on Axis III ( Wise& Rundell, 2002).

Moreover, the 10th edition of the International Statistical Classification of Diseases and Related Health Problems (ICD-10) describes organic disorders as having a "demonstrable etiology in cerebral disease, brain injury, or other insult leading to cerebral dysfunction. The dysfunction may be primary, as in diseases, injuries and insults that affect the brain directly and selectively; or secondary, as in systemic diseases and disorders that attack the brain only as one of the multiple organs or systems of the body that are involved. (Drooker,2004).

#### <u>DSM-IV-TR Classification of Mental Disorders due to a</u> General Medical Condition

- Delirium
- Dementia:
  - a. Dementia due to human immunodeficiency virus disease
  - b. Dementia due to head trauma
  - c. Dementia due to Parkinson's disease
  - d. Dementia due to pick's disease

- e. Dementia due to Huntington's
- f. Dementia due to Creutzfeldt-Jakob disease
- g. Dementia due to other general medical conditions
- Amnestic disorder
- Psychotic disorder
- Mood disorder
- Anxiety disorder
- Sleep disorder
- Sexual dysfunction
- Catatonic disorder
- Personality change
- Mental disorder not otherwise specified

#### ICD-10 Classification of Organic Mental Disorders

Organic, including symptomatic and mental disorders:

- Delirium
- Dementia
- Alzheimer's disease
- Vascular
- Pick's disease
- Creutzfeldt-Jakob disease
- Huntington's disease
- Parkinson's disease
- Human immunodeficiency virus disease
- Dementia in other specified (e.g., neurosyphilis and vitamin B12 deficiency)
- Unspecified dementia
- Organic amnestic syndrome
- Other mental disorders due to brain damage and dysfunction and to physical disease.
- Organic hallucinosis

- Organic catatonic disorder
- Organic delusional disorder
- Organic mood disorders
- Organic anxiety disorder
- Organic dissociative disorder
- Organic emotionally labile disorder
- Mild cognitive disorder
- Other specified mental disorders due to brain damage and dysfunction and to physical disease
- Unspecified mental disorder due to brain damage and dysfunction and to physical disease
- Personality and behavioral disorders due to brain disease, damage, and dysfunctions
- Organic personality disorder
- Postencephalitic syndrome
- Postconcussional syndrome
- Organic sleep disorder
- Organic sexual dysfunction
- Unspecified organic or symptomatic mental disorder
- Mental and behavioral disorders due to psychoactive substance use (Dooker, 2004).