

ORGANIC MENTALDISORDERS

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NEUROCOGNITIVE DISORDERS – DSM5

- **DELIRIUM**
- **MAJOR NEUROCOGNITIVE DISORDERS: DEMENTIAS**
- **MINOR NEUROCOGNITIVE DISORDERS**

ORGANIC MENTAL DISORDERS

- DELIRIUM
- DEMENTIA
- ORGANIC AMNESTIC SYNDROME
- OTHER O.M.D.

Other O.M.D

- **Primary Cerebral Disease:** Epilepsy, Limbic Encephalitis, Head injury, SOL, CVA, A-VM, Huntingtons's dementia
- **Systemic Diseases:** extra cranial neoplasms, collagen disorders, endocrine / metabolic disorders, systemic infections
- **Drugs :** Steroids, Propanolol, levodopa, methyldopa, Alcohol & Psychoactive drugs

Other O.M.D

- **Organic Hallucinosiis**
- **Organic Catatonic Disorder**
- **Organic Delusional Disorder**
- **Organic Mood Disorder**
- **Organic Anxiety Disorder**
- **Organic Personality Disorder**

DELIRIUM

- Delirium is an Acute, potentially Reversible brain Dysfunction manifested by a syndromal array of Neuropsychiatric Symptoms.
“SYNDROME OF CEREBRAL INSUFFICIENCY”
- Commonest of all OMD , occurring in 5-15% of all Medical & Surgical Inpatients

DELIRIUM

1. **Acute Onset**
2. **Disturbance of Consciousness** : with reduced ability to Focus, Sustain, or Shift Attention
3. **Change in Cognition: Memory deficit, Disorientation, Perceptual Disturbances**
4. Disturbance develops over a **short period**
5. **Fluctuating Course**
6. Disturbance caused by **Direct Physiological consequences** of a Substance/ Gen. medical condition

DELIRIUM SUBTYPES

1. **HYPERACTIVE** :- Restless, Hyper vigilant, rapid Speech, Irritability, Aggressive, Violent
2. **HYPOACTIVE** :- Slowed Speech & Kinetics, Apathy, Reduced Alertness

DELIRIUM- Clinical features

1. Clouding of Consciousness
2. Poor Attention & Vigilance
3. Disorientation
4. Disorganised Thoughts
5. Memory Disturbances
6. Sleep Disturbances
7. Language Disturbances
8. Mood Lability
9. Delusions
10. Perceptual disturbances / Hallucinations
11. Psychomotor Changes

DELIRIUM- Etiology

- A. **METABOLIC** : Hypoxia, Hypoglycemia, Hepatic-Uremic Encephalopathy, Water-Electrolyte imbalance, Acidosis / Alkalosis, Cardiac Failure / Arrhythmia, Fever, Anaemia
- B. **ENDOCRINE** : Hypo / Hyper Functioning of Thyroid, Parathyroid, Pituitary , Adrenals
- C. **NUTRITIONAL** : Thiamine, Niacin, Pyridoxin, B12, Folic acid
- D. **SYSTEMIC INFECTION** : Septicemia, Pneumonia

DELIRIUM - Etiology

- E. **DRUGS** : Digitalis, Quinidine, Alcohol, Sedatives, TCA, Antipsychotics, AntiCholinergic, Disulfiram
- F. **INTRACRANIAL** : Epilepsy, Head Injury, SAH, SDH, Infections-Meningitis, Encephalitis, Cerebral malaria, Migraine, Stroke, Focal lesions
- G. **MISC** : Post Operative, ICU, Sleep deprivation, Radiation, Heat

RISK FACTORS:

- **DEMENTIA**
- **ELDERLY AGE**
- **ALCOHOL / SEDATIVE WITHDRAWAL**
- **FEVER**
- **ILLNESS SEVERITY**
- **ELECTROLYTE Disturbance / Raised BUN, Creat., Amonia**
- **HYPOXIA**
- **ANTICHOLINERGICS**
- **WINDOWLESS ICU**

DELIRIUM- Management

- Investigations General
- Identify Cause
- Specific Treatment
- Symptomatic i.e. agitation
- Supportive

DEMENTIA

- Acquired Global Impairment of
Memory,
Cognition(Aphasia, Agnosia, Apraxia,
Executive functioning)
Intellectual Functioning, &
Behavioral changes, associated with –
Emotional lability,
Thought dist.,
Incontinence,
Disorientation,
Neurological signs

DEMENTIA

- **CORTICAL :**

Alzheimers, Pick, Frontotemporal, C-Z

- **SUBCORTICAL :**

HIV, Parkinsons, Huntingtons

- **CORTICAL + SUBCORTICAL :**

Vascular, Lewy Body

DEMENTIA - Etiology

V-Vascular

I- Infections

E-Endocrine

T-Trauma

N-Nutritional

A-Anoxia

M-Metabolic

D-Drugs

I- Inflammatory

E-Epilepsy

T-Toxins

Dementias

DIFFERENTIAL DIAGNOSIS

- Normal ageing / Age related Cognitive decline
- Mild Cognitive Impairment (MCI)
- Delirium
- Pseudodementia

ALZHEIMERS DEMENTIA

- Diagnosis by Exclusion
- Post Mortem confirmation
- Brain Volume loss – Cerebral Atrophy & Ventricular Dialation
- Senile Plaques , Neurofibrillary Tangles
- Nerve cell loss, Granular Vacuolar Degeneration
- Reduced Brain Acetyl Choliene
- 70% OF ALL DEMENTIAS

MULTI-INFARCT DEMENTIA

- 10-15% of all dementias
- Abrupt onset
- Acute Exacerbations
- Step Ladder pattern
- Fluctuating course . E.g. DM, HTN, TIA,CVA
- Neurological Signs Present
- MRI, CT Scans Reveal Multiple Lacunar Infarcts

OTHER DEMENTIAS

Dementia due to **HYPOTHYROIDISM** –
Reversible

AIDS Dementia

50-70% of all AIDS patients Exhibit a
TRIAD of Cognitive, Behavioral, Motor
Deficits .

Sub-cortical Dementia +Cortical Atrophy

LEWY BODY DEMENTIA

- 2nd Most Common Degenerative Dementia
- LB are IntraCytoplasmic Inclusion Bodies
- Decrease Dopamine Transporter in Basal Ganglia
- Fluctuating course of impairment in Memory & Higher Functions (Apraxia & Agnosia) with Lucid periods
- Recurrent Visual Hallucinations
- Extra Pyramidal Symptoms
- Neuroleptic Sensitivity
- Falls , Autonomic Dysfunction

AMNESTIC SYNDROME

- Memory impairment
- New learning impairment
- Inability to Recall
- AMNESTIC Disorder due to a Gen.Medical Illness
- SUBSTANCE Induced PERSISTING AMNESTIC Disorder
- D.D : Transient Global Amnesia

Management

- Basic Investigation
- Treat Basic cause
- Specific Treatment
- Symptomatic Management : Environment, treat medical complication, food & hygiene, Anxiety, Depression, Psychotherapy, hospitalization, Institutionalization & Medications

Symptomatic Management and Counseling

- **Improving mental functioning**
- **Management of confusion and agitation**
- **Maintaining the patient at home**
- **Risk factor reduction and attention to underlying etiologies**

Improving Mental Functioning

- **No established treatment** for Alzheimer's disease or for patients with multi-infarct dementia
- Findings of degeneration of cholinergic neurons and depletion of choline-acetyl transferase in Alzheimer's disease have led to attempts at *improving cholinergic transmission*
 - lecithin supplements (dietary choline repletion)
 - tacrine (a centrally active, reversible cholinesterase inhibitor)

Improving Mental Functioning

- There is *no* evidence to support the use of:
 - *restorative therapy* with nerve growth factor,
 - *protective therapy* with antioxidants,
 - *preventive therapy* with drugs that inhibit beta amyloid formation, and “cerebral *vasodilators*” (papaverine, dihydroergotoxine) to improve memory

Management of Confusion and Agitation

- The chronic use of **sedatives and psychoactive** agents in the confused patient should be **avoided** unless persistent extreme agitation hampers care
- The **lowest possible doses** should be used and for the shortest time possible
 - *thioridazine* (10 to 25 mg qhs)
 - *haloperidol* (0.5 to 1 mg bid or tid)
often a first choice in the setting of delusions and hallucinations;
must be careful to avoid long-term use because of the risk of inducing tardive dyskinesia

Management of Confusion and Agitation

- **Avoid** regular use of sedative/hypnotic agents for sleep
- **Beta-blocking** agents and **anticholinergics** may exacerbate confusion
- Patients with depression may improve with a tricyclic compound with low anticholinergic side effects
 - *desipramine* (25 to 50 mg qhs)
- A recent study of nursing home patients demonstrated substantial improvement in many patients when chronically prescribed psychotropic drugs were **discontinued or reduced in dose**

Maintaining the Patient at Home

- **An important task is helping the family maintain and care for the patient at home**
- **The goal is to sustain the highest level of function possible:**
 - **facilitate and promote an orderly home situation**
 - **regular routine use of calendars, television, newspapers, and other means of orientation**
 - **limit the use of potentially dangerous appliances**
 - **provide convenient toilet facilities**
 - **advice against driving when early impairment of judgment and spatial concepts is present**

Maintaining the Patient at Home

- Families can often find help in local **support groups**, day care and group therapy services, and social service agencies
- When care at home begins to exhaust and strain the family, sensitive **counseling** can do much to help a family cope with the difficult decision regarding institutionalization
- Some dementing diseases are infectious (eg, HIV infection) and that the bodily fluids and tissues of such patients require special handling to **avoid transmission**. It is particularly important to emphasize when home care is rendered by lay persons

Risk factor reduction and attention to underlying etiologies

Central to an effective outcome :

- **control of cerebrovascular risk factors as hypertension, diabetes mellitus, smoking , hyperlipidemia , and coronary artery disease**
- **endarterectomy deserves consideration when a vascular etiology is strongly suspected and a significant stenosis is found**
- **Avoidance of toxins, correction of vitamin deficiencies, discontinuation of causative drugs, initiation of hormonal replacement therapy in cases of deficiency, and treatment of underlying infectious etiologies**

Treatment of Alzheimer's Disease

Preventive Methods:

- Estrogen
 - Anti-inflammatory agents (Ibuprofen, Steroids)
 - Antioxidants (Vitamin E)
- * These methods are still under investigation!

THANK YOU