



- **Definition of dementia:**

- Loss of mental function to the extent that interferes with person’s daily life.
- It is mostly occurring in elderly.
- **Group of symptoms including:** loss of memory, intelligence, rationality and normal emotional reactions.

- **Causes of dementia:**

- **Vascular:** multi-infarcts dementia.
- **Inherited/ degenerative:** Alzheimer’s disease (being the most common cause of dementia), Pick’s disease and huntington’s disease.
- **Infectious:** HIV, syphilis and Crutzfeldt-Jakob disease.
- **Neoplastic.**
- **Hydrocephalus.**
- **Toxic/ nutritional:** alcohol, vitamin B12 deficiency and thiamine deficiency.
- **Traumatic:** boxer’s dementia and chronic subdural hematoma.

- **Alzheimer’s disease (AD):**

- **Definition:** progressive degeneration of neurons and synapses in cerebral cortex.
- **Epidemiology:**
 - ✓ Prevalence:
 - ❖ 4% in those who are above 65 years.
 - ❖ 47% in those who are above 85 years!
 - ✓ AD is the 4th leading cause of death among adults (after heart disease, cancer and stroke).
- **Diagnosis of AD according to DSM-IV (Diagnostic and Statistical Manual of Mental Disorders, 4th edition):**
 - ✓ Development of multiple cognitive deficits manifested by:
 - ❖ *Memory impairment (both retrograde and anterograde amnesia) plus one or more of the following:*
 - Aphasia (language disturbance).
 - Apraxia (inability to copy a design or draw a clock).
 - Agnosia (failure to identify objects).
 - Disturbance in executive functioning.

Note: the course is characterized by gradual onset and continuing cognitive decline. In addition, any of these cognitive deficits must be excluded to belong to one of the other causes of dementia thus we can definitely ensure that they are caused by AD.

• **Clinical features of AD:**

	<u>Stage-I (mild)</u>	<u>Stage-II (moderate)</u>	<u>Stage-III (severe)</u>
Memory	Poor for recent memories	Profound loss of recent and past memories	Severe impairment of memory and all cognitive functions
Visuospatial	Impaired ability to copy figures	Disorientation and gets lost easily	-
Language	Mild anomia & empty speech	Anomia, agnosia & impaired comprehension	Patient is mute
Motor function	Normal	Restlessness	Unsteady with reduced mobility
Personality & others	Depression & anxiety	Irritability, anxiety and delusions (أوهام)	Urinary and fecal incontinence



- **Pharmacological treatment of AD:**

- ✓ Cholinesterase inhibitors (mostly selective for brain):

- ❖ *Examples include:* donepezil, rivastigmine, metrifonate and galantamine.

- ❖ *Adverse effects:* nausea, vomiting, headache, dizziness and insomnia.

- ✓ To slow the progress of dementia: memantine is given.

- ✓ For anxiety: trazodone 25mg.

- ✓ For hallucination: clozapine.

- ✓ For depression: SSRI (such as citalopram: it is effective with mild side effects).

- **Delirium (الهلين):**

- **Definition:** a state of fluctuating mental confusion of abrupt onset (over few hours) and short duration (days).

- **Causes:**

- ✓ Infectious: syphilis, cerebral infection or urinary tract infection (UTI).

- ✓ Toxic: alcohol, anti-depressants, anti-parkinsonian or psychotropics.

- ✓ Hypoxic: poor cardiac output, stroke or anemia.

- ✓ Metabolic: thiamine deficiency or a problem with thyroid hormone.

- ✓ CNS disorder: trauma, ischemia or dementia.

- ✓ Sensory deprivation: visual, auditory, pain, constipation or urinary retention.

- **Degrees of delirium:**

- ✓ Mild: difficulty in maintaining attention especially at night + gaps in memory.

- ✓ Moderate: patient distracted easily + disturbances in sleep cycle.

- ✓ Severe: patient lapses into periods of coma.

- ✓ Coma: unresponsive to anything except painful stimuli.