

ALZHEIMER'S DISEASE

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Definition:

Alzheimer's is a progressive mental deterioration that can occur in middle or old age due to generalized degeneration of the brain.

Incidence:

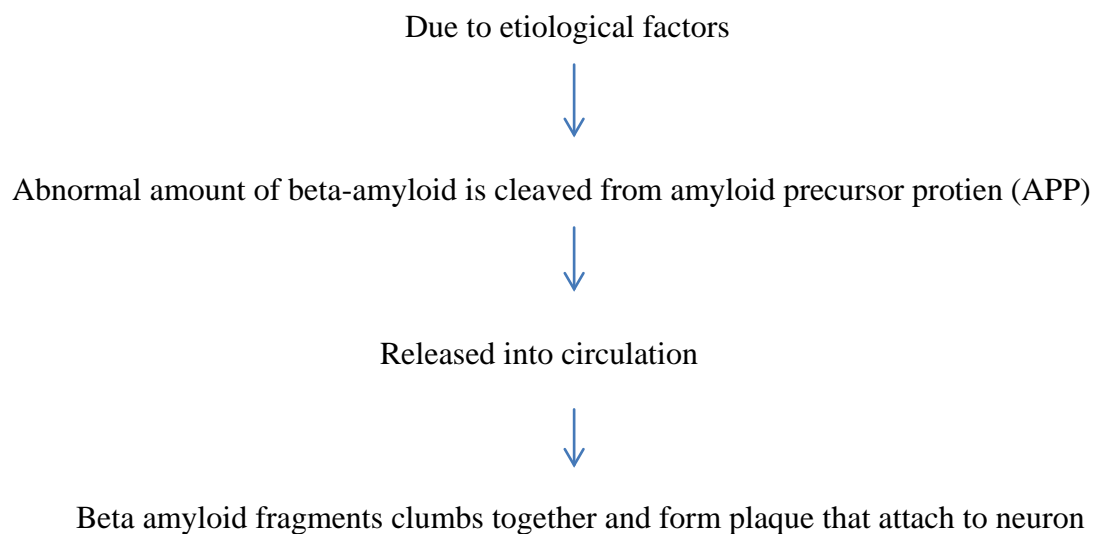
It is estimated about 4.4 million people worldwide living with Alzheimer's. In India, the elderly population which is growing at a faster rate of 3% may up the burden of Alzheimer's.

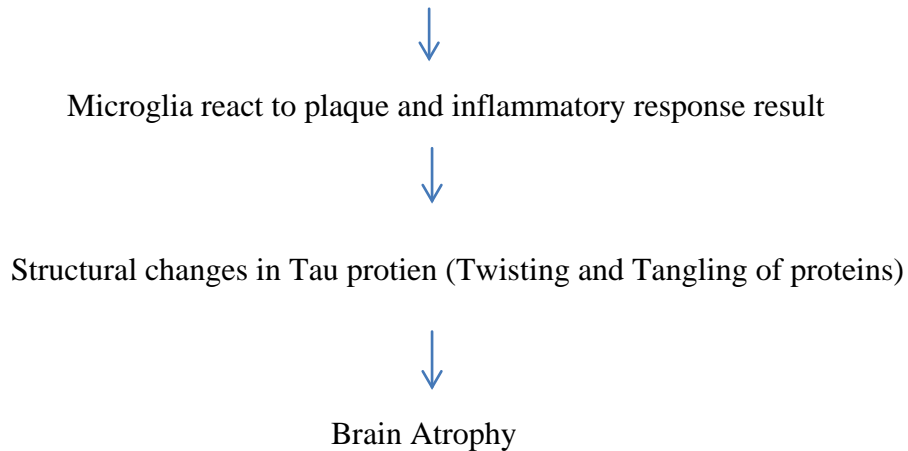
Etiology:

The exact cause is 'unknown'.

- Genetic factors, Environmental factors, Aging (Above 60 years old are more), Down syndrome, High blood pressure, High cholesterol, Obesity, History of a head injury.

Pathophysiology:





STAGES OF ALZHEIMER'S DISEASE: [clinical manifestation]

Alzheimer's disease typically progresses slowly in three general stages – **Mild** [early stage], **Moderate** [middle stage] and **Severe** [late stage].

1. Mild stage :

- Forgetfulness, short term memory, loss of interest, forgets recent events, personality changes, slowly loses ability to plan and organize.

2. Moderate stage :

- Memory loss, confusion, incontinence, trouble recognizing family members and friends, Agitation and restlessness, Sleeping disturbance, Delusion and hallucination

3. Severe stage :

- Impairment in cognitive function, unable to process new information, unable to perform self-care activity, may not be able to talk, difficulty in eating, swallowing, Immobility, incontinence.

Diagnostic evaluation:

- History and physical examination, Neuropsychological testing, Brain imaging test: CT scan, MRS, MRI, PET [positron emission tomography], Complete blood count, Electrocardiogram, Thyroid function test, Liver function tests.

MANAGEMENT OF ALZHEIMER'S DISEASE

Nursing Management

Behavioral problems:

- Initially assess the patients physical status, Check patient for vital signs, urinary and bowel patterns, Avoid patient from extreme noise and provide calm and quiet environment, Do not restraint the patient for the difficult patient, Disruptive behavior can be treated with Antipsychotic drugs, Maximizing exposure to day light, Limiting naps and caffeine.

Safety:

- Handrails should be graspable, Use nonskid mats in tub or shower, and Install handrails in bath and by the commode.

Eating and swallowing difficulty:

- Use pureed foods, ask patient to chew their food and to swallow.
- Provide quiet and unhurried environment for eating, inspect the mouth regularly and provide mouth care.

Elimination problems:

- Provide fiber rich diet, use stool softeners or enema.

Home remedies:

- Regular exercises.
- **“Ginkgo biloba”** - It's used to treat mental conditions, Alzheimer's disease and fatigue.

PHARMACOLOGICAL MANAGEMENT:

❖ Cognitive symptoms

Medications for early to moderate stage:

Three cholinesterase inhibitors are commonly prescribed:

- Donepezil [Aricept]
- Rivastigmine[Exelon]
- Galantamine [Razadyne]

Medications for moderate to severe stage:

- Memantine [Namenda].
- Combination of Memantine and Donepezil.

❖ Behavioral symptoms

1. Antidepressants
 - Trazodone
2. Sedative hypnotics
 - Benzodiazepines
3. Cholinesterase inhibitors
 - Donepezil
 - Galantamine
4. Mood stabilizers
 - Divalproex
 - Gabapentine
5. Antipsychotics
 - Risperidone