Alzheimer's disease and its rehabilitation

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Alzheimer's

Alzheimer's is a disorder that causes degeneration of its brain cells. Gradually, it destroys memory which causes confusion, memory loss and other important mental functions.

It is said to be the most common cause of dementia. The cause of disease is changes in the brain. Some symptoms are related to messengers (chemical) in the brain. These messengers are called as Neurotransmitters which allows the nerve cell to communicate in the brain. Few causes are building of proteins abnormally in or around brain cells.

Alzheimer's disease is having 7 stages. They are

• No Impairment.
• Very Mild Decline
• Mild Decline
• Moderate Decline
• Moderately Severe Decline
• Severe Decline
• Very Severe Decline

Individual with Alzheimer's disease have two things in the brain that are not normal

Amyloid plaques are clumps of a protein called beta amyloid. This plaque builds up around the brain cells that communicate with each other.

Neurofibrillary tangles are made from a protein called tau. Normally, the tau protein helps cells communicate in the brain.

In Alzheimer's disease, the tau protein twists and tangles. The tangles clump together, and some nerve cells will die. This makes communication harder in the brain.

As brain cells die, the brain shrinks and causes problems in the brain like memory loss, intelligence, language, behaviour, judgement, etc.

Diagnosis is physical examination, memory test, and mental skills. Lab tests are done to examine levels of blood, minerals, liver, thyroid, vitamin B12, imaging test, ECG, EEG, lumbar puncture, PET, SPECT.

Alzheimer's disease cannot be treated in many people. Although, medication is available to treat symptoms, drugs do not work for all.

4 drugs are available to treat AD approved by FDA. It will take 6 weeks to check the results of drugs given. Of these 4 drugs, 3 belongs to 1 family called cholinesterase inhibitors. They are

• Galantamine (Razadyne®)
• Rivastigmine (Exelon®)
• Aricept® (Donepezil)

Fourth drug is memantine (Namenda®), used for moderate to severe stages of AD.

The other way to treat AD is rehabilitation. Depends on the symptoms and progression of disease the doctor will suggest rehabilitation. Skills which are lost like memory, mental function cannot regain with rehabilitation.

• Physical exercise and managing social activities are important. Proper nutrition and health maintenance are also important.
• Plan your daily activities which help to provide structure, meaning, and accomplishment for the person.
• When you lost, adapt daily activities and routines to allow the person to participate as much as possible.
• Keep familiar activities and satisfying.
• Allow the person to complete him or her tasks. The caregiver may need to initiate the activity, and allow the person to complete on their own.
• Provide "cues" for desired behavior (i.e., label drawers/cabinets/closets according to their contents).
• Keep the person out of harm's way by removing all safety risks (i.e., car keys, matches).
• For a caregiver (full-time or part-time), it is important to understand your own physical and emotional limitations.