

# Senile Dementia - What else when I Forget!

**Abstract:** *The march of the human mind is slow, but it is unceasing, vigilant and eternal; and its goal is upward, onward, towards a solution of the infinite mind and the uncovering of the unknown. The mind of an aged person is usually not that much active as a young mind and thus senile dementia is considered as a physiological phenomenon. But the premature onset of senile dementia is pathological and needs to be corrected so as to avoid other consequences arising out of it. Homoeopathic medicines are of great help to treat such cases successfully.*

**Dr SWAPAN PAUL BHMS, MD (Hom) (Cal.)**

Reader, Dept of Materia Medica

Jawaharlal Nehru Homoeopathic Medical College, Gujarat

## INTRODUCTION

The aging process or senescence (Latin word *senescere*, "to grow old"), is characterized by a gradual decline in functioning of the body's systems—cardiovascular, respiratory, genitourinary, endocrine, and immune etc. But the belief that old age is invariably associated with profound intellectual and physical infirmity is a myth. Many older people retain cognitive abilities and physical capacities to a remarkable degree. Individuals do not grow older rather they stop growing when they become old.

Each person is genetically endowed with one or more vulnerable systems, or a system may become vulnerable because of environmental stress or intentional misuses (eg excess smoking, drinking alcohol etc). Aging generally means aging of cells. In the commonly held theory, each cell has a genetically determined life span during which it can replicate itself a limited number of times before it dies. Structural changes in cells occur with age. In the central nervous system age related cell changes occur in neurons, which show signs of degeneration. In senility (characterized by severe memory loss and a loss of intellectual functioning), signs of degeneration are much more severe and are known as neurofibrillary degeneration, seen most commonly in dementia of the Alzheimer's type. Genetic factors have been implicated in disorders that commonly occur in older people,

such as hypertension, coronary artery disease, arteriosclerosis and neoplastic disorders. Family studies indicate inheritance factors for certain mental disorders of old age. Among all the geriatric disorders "premature senile dementia" is a major problem which needs to be corrected either by sensual advice, relative reasoning and proper guidance or by medication to activate the memory of the aged, so that they can perform their duties and responsibilities without any harassment, giving them a quality of life. We have a good number of Homoeopathic medicines to treat such cases and to prevent premature senile dementia.

## MEMORY VS DEMENTIA

Memory is a complex function of the brain that has fascinated philosophers and scientists for centuries. Memory is currently viewed as a mental process that uses several storage buffers of differing capacity and duration, sensory memory lasts for about 250 ms in the visual mode (iconic memory) and 1-2 s in the auditory mode (echoic memory). Immediate (short-term or primary) memory has duration of about half a minute and a limited capacity of approximately 5-10 items. Immediate memory is highly vulnerable to distraction, requiring attention and vigilance to maintain the content. Recent or secondary memory has been called both "short-term" and "long-term". It has a

duration of a few minutes to weeks and exhibits a larger storage capacity than immediate memory. Remote, long-term memory stores information lasting from weeks to a lifetime and contains most of our personal experiences and knowledge. Some information appears to be stored accurately for an indefinite time, whereas other items fade or become distorted. Memory function includes registration (encoding or acquisition), retention (storage or consolidation), stabilization, and retrieval (decoding or recall). Registration and retrieval are conscious processes.

Reference memory refers to a filing system that contains recent and remote information gained from previous experience. Working memory refers to an active process that is being updated continually by current experience. Episodic memory contains information about events occurring in a specific place and time. Semantic memory contains unchanging facts, principles, associations, and rules. Declarative (explicit) memory refers to facts about the world and past personal events that must be consciously retrieved to be remembered. Procedural (implicit) memory, in contrast, is involved in learning and retaining a skill or procedure such

as how to ride a bicycle, get dressed, or to drive a car. Abilities stored in procedural memory become automatic and do not require conscious implementation.

The executive function refers to mental activity involved in planning, initiating, and regulating behavior. It is considered the central organizing function of the brain that results in systematic, goal-directed activity. Executive functions are active in non-routine situations where reflex or automatic behavior is not adequate. Deficits in executive function occur frequently in patients with dementia.

Dementia is a serious and common problem that affects 10% of persons over age 70 years and 20-40% of individuals over age 85 years and has clinically identifiable memory loss. Dementia is a deterioration in cognitive abilities that impairs the previously successful performance of activities of daily living. Memory is the first and most important cognitive ability that is lost. Other mental faculties may also be affected such as attention, judgement, comprehension, orientation, learning, calculation, problems solving, mood, and behavior. Agitation or withdrawal, hallucination, delusions, insomnia, and loss of inhibitions are also common.

**DISTINGUISHING FEATURES OF SUB-CORTICAL DEMENTIA & CORTICAL DEMENTIA**

Characteristics	Sub-cortical Dementia	Cortical Dementia
Language	No aphasia	Apraxic/Anomic
Memory	Impaired recent (systemic) registration (encoding)	Recent and remote memory impaired
Visuospatial skills	Impaired	Impaired
Calculation	Preserved until late	Involved early
Executive function	Disproportionately affected	Degree of impairment consistent with their involvement
Speed of cognitive processing	Slow early	Normal until late in disease
Personality	Apathetic, inert	Unconcerned
Mood	Depressed	Euthenics
Speech	Dysarthric	Articulate until late
Posture	Bowed or extended	Upright
Co-ordination	Impaired	Normal until late
Motor speed and control	Slowed	Normal
Abnormal movements	Chorea, tremor, not dystonic	Absent

Individuals with mental retardation and psychosis may become demented if a decline in intellectual function occurs. Many common forms of dementia are progressive but some dementing illnesses are static and unchanging. Dementia is a chronic condition, whereas delirium is an acute confusional state associated with a change in level of consciousness (ranging from lethargy to agitation).

Dementia results from disorders of cerebro-neuronal circuits and is a result of the total quantity of neuronal loss combined with the specific location of loss. Biochemically, the cholinergic system plays an important role in memory. Anticholinergic agents such as atropine and scopolamine interfere with memory.

**THE RISK FACTORS FOR DEMENTIA**

Many research studies have identified several risk factors that affect the likelihood of developing one or more kinds of dementia. Some of these factors are modifiable, while others are not.

- **AGE:** The risk of Alzheimer's disease (AD), vascular dementia, and several other dementias goes high up significantly with advancing age.
- **GENETICS/FAMILY HISTORY:** Researchers have discovered a number of genes that increase the risk of developing AD. Although people with a family history of AD are generally considered to be at a heightened risk of developing the disease themselves, many people with a family history never develop the disease, and many without a family history of the disease do get it. In most cases, it is still impossible to predict a specific person's risk of the disorder based on family history alone. In some cases of fatal familial insomnia there may have mutations in the gene. Individuals with these mutations are at significantly higher risk of developing dementia. Abnormal genes are also clearly implicated as risk factors in Huntington's disease and several other kinds of dementia.
- **SMOKING AND ALCOHOL USE:** Several recent

studies have found that smoking significantly increases the risk of mental decline and dementia. People who smoke much have a higher risk of atherosclerosis and other types of vascular disease, which may be the underlying causes for the increased risk of dementia. Studies also have found that drinking large amounts of alcohol appears to increase the risk of dementia.

- **ATHEROSCLEROSIS:** Atherosclerosis is a significant risk factor for vascular dementia, because it interferes with the delivery of blood to the brain and can lead to stroke. Studies have also found a possible link between atherosclerosis and AD.
- **CHOLESTEROL:** High levels of low-density lipoprotein (LDL) appear to significantly increase a person's risk of developing vascular dementia. Some research has also linked high cholesterol to an increased risk of AD.
- **PLASMA HOMOCYSTEINE:** Research studies have shown that a higher-than-average blood level of homocysteine (a type of amino acid) is a strong risk factor for the development of AD and vascular dementia.
- **DIABETES:** It is a risk factor for both AD and vascular dementia, and for atherosclerosis and stroke, both of which contribute to vascular dementia.
- **MILD COGNITIVE IMPAIRMENT:** People with this condition do have a significantly increased risk of dementia, but not all people with mild cognitive impairment develop dementia. In a study it was found that approximately 40 percent of people over age 65 who were diagnosed with mild cognitive impairment developed dementia within 3 years.
- **DOWN SYNDROME:** Studies have found that most people with Down syndrome develop characteristic AD in advancing age. Many, but not all, of these individuals also develop symptoms of dementia.

**Various types of Senile Dementias**

- **Alzheimer's Disease (AD)**

- Vascular Dementia (VD)
  - Lewy Body Dementia (LBD)
  - Fronto-Temporal Dementia (FTD)
- Diseases associated with Dementia**
- Creutzfeldt Jakob Disease (CJD)
  - Cortico-Basal Degeneration (CBD)
  - Huntington's Disease (HD)
  - HIV - Associated Dementia (HAD)

**APPROACH TO A PATIENT OF DEMENTIA**

Every patient of dementia should be examined carefully to identify the cause of dementia and whether the condition is reversible (treatable) or not. The history should be concentrated on- the onset, duration, and tempo of the memory loss. Acute or sub-acute confusion may represent delirium and suggests intoxication, infection, or metabolic derangement. An elderly person with slowly progressive memory loss over several years is likely to have Alzheimer's disease (AD). Initial symptoms are, difficulty in managing money, driving, shopping, following instructions, or finding one's way around town. A change in personality with disinhibition and intact memory may suggest Fronto-temporal dementia (FTD). A history of sudden stroke with

an irregular stepwise progression suggests multi-infarct dementia. A positive family history of dementia would be elicited in Huntington's disease, familial AD and inherited FTD.

Cognitive function should be assessed in terms of orientation, recent and remote memory, and calculation. The **mini-mental status examination** (MMSE) is an easily administered 30-points test of cognitive function. It is used to quickly indicate a dementing process, provide a rough assessment of its severity, and follow progression of the illness. The MMSE is influenced by culture and education and is less useful in the early and late stages of dementia. Language function should be tested by the ability to read, write, comprehend, and name the objects.

**MEASURES TO PREVENT DEMENTIA:** Research studies have revealed a number of factors that may prevent or delay the onset of dementia in some people. For example, studies have shown that people who maintain tight control over their blood glucose levels tend to score better on tests of cognitive function than those with poorly controlled diabetes. Several studies also have

**Mini-Mental Status Examination (MMSE)**

Description	Points
<b>Orientation</b> Name: Hospital/Floor/Town/State/Country	5 (1 for each name)
<b>Registration</b> Identify three objects by name and ask patient to repeat	3 (1 for each object)
<b>Attention &amp; Calculation</b> Serial 7s: Subtract from 100 (eg 93-86-79-72-65)	5 (1 for each subtraction)
<b>Recall</b> Recall three objects presented earlier	3 (1 for each object)
<b>Language</b> Name pencil and watch	2 (1 for each object)
Repeat "No ifs, ands, or buts"	1
Follow a 3-step command (eg Take this paper, fold it in half, and place it on the table)	3 (1 for each command)
Write "close your eyes" and ask patient to obey written command.	1
Ask patient to write a sentence.	1
Ask patient to copy a design (eg Intersecting pentagons)	1
<b>Grand Total</b>	<b>30</b>

suggested that people, who are engaged in intellectually stimulating activities, such as social interactions, chess, crossword puzzles, and playing a musical instrument, significantly lower their risk of developing AD and other forms of dementia. Scientists believe that mental activities may stimulate the brain in a way that increases the person's, "cognitive reserve"- the ability to cope with or compensate for the pathological changes associated with dementia. The risk of vascular dementia is strongly correlated with risk factors for stroke, including high blood pressure, diabetes, elevated cholesterol levels, and smoking. This type of dementia may be prevented in many cases by changing lifestyle factors which are associated with an increased risk of cerebrovascular disease.

Research studies are still going on for other steps people can take which may help prevent AD in some cases and other forms of dementias. But most of the studies are addressed only to AD and the results may or may not apply to other forms of dementia. Nevertheless, scientists are encouraged by the results of these early studies and many believe it will eventually become possible to prevent some forms of dementia. Possible preventive actions include:

- **Lowering homocysteine (due to reasons stated above)**
- **Lowering cholesterol levels**
- **Lowering blood pressure**
- **Exercise:** Regular exercise stimulates production of chemicals called growth factors that help neurons to survive effectively and adapt to new situations. These gains may help to delay the onset of dementia symptoms. Exercise also may reduce the risk of brain damage from atherosclerosis.
- **Education:** Researchers have found that the formal education may help to protect people against the effects of AD. In a study it has been found that people with more years of formal education had relatively less mental

decline than people with less schooling. The researchers think education may cause the brain to develop robust nerve cell networks that can help to compensate the cell damage caused by AD.

- **Controlling inflammation:** Many studies have suggested that inflammation of brain may contribute to AD. Autopsies of people who died with AD have shown widespread inflammation in the brain that appeared to be caused by the accumulation of beta amyloid. Studies found that men with high levels of C-reactive protein, a general marker of inflammation, had a significantly increased risk of Alzheimer's disease and other kinds of dementia.

#### CARE FOR A PERSON WITH DEMENTIA:

- People with moderate and advanced dementia typically need round-the-clock care and supervision to prevent them from harming themselves or others. They also may need assistance with daily activities such as eating, bathing, and dressing.
- The typical home environment can present many dangers and obstacles to a person with dementia, but simple changes can overcome many of these problems. For example, sharp knives, dangerous chemicals, tools and other hazards should be removed or locked away. Other safety measures include installing bed and bathroom safety rails, removing locks from bedroom and bathroom doors, and lowering the hot water temperature to 120°F (48. 9°C) to reduce the risk of accidental scalding. People with dementia also should wear some form of identification at all times in case they wander away or become lost.
- People with dementia often develop behavior problems because of frustration with specific situations. Understanding and modifying or preventing the situations that trigger these behaviors may help to make life more pleasant for the person with dementia as well as his or her caregivers. For instance, the person may be confused or frustrated by the

level of activity or noise in the surrounding environment. Reducing unnecessary activity and noise may make it easier for the person to understand requests and perform simple tasks. Confusion also may be reduced by simplifying home decorations, removing clutter, keeping familiar objects nearby, and following a predictable routine throughout the day. Calendars and clocks also may help patients orient themselves.

- People with dementia should be encouraged to continue their normal activities as long as they are safe and do not cause frustration. Activities such as crafts, games, and music

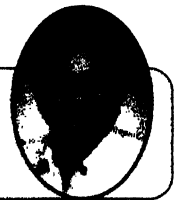
can provide important mental stimulation and improve mood. Some studies have suggested that participating in exercise and intellectually stimulating activities may slow the decline of cognitive function in some people.

- Many studies have found that driving is unsafe for people with dementia. They often get lost and may have problems remembering or following rules of the road. They also may have difficulty processing information quickly and dealing with unexpected circumstances. Driving with impaired cognitive functions can also endanger others.

## Heart attack: Can One Prevent it in Old Age?

**Dr SHAILENDRA MISHRA BHMS CCH**

Lecturer Anushree Homoeopathic Medical College, Jabalpur  
35, Shiv Nagar Garha Railway Crossing Gulaua Chowk, Jabalpur  
Mob: 09229600491 E-mail: mishrasailendra7@gmail.com



Do you know that

- Heart attack is the leading killer of people over the world.
- Number of heart attacks are increasing in developing countries like India.
- 4 out of every 10 persons die of heart attacks, mostly within 1 hour before medical aid reaches them.
- It has been estimated that at least 7,00,000 people die of heart disease every year in India alone.

### WHAT IS HEART ATTACK?

For proper functioning the heart muscles need oxygen and essential nutrients, which are supplied to it by coronary arteries situated on the outer surface of the heart. There are 3 major coronary arteries, each with many smaller branches. These arteries can get narrowed due to deposition of cholesterol, found in animal fats and oils, in egg yolk and many other foods. If one of the coronary arteries gets completely blocked due to cholesterol,

a part of the heart muscle does not get blood supply and is deprived of oxygen and eventually it dies. This leads to heart attack (myocardial infarction).

### WARNING SYMPTOMS

- Chest pain: The pain of a heart attack is usually very severe and occurs in the centre of the chest and it may spread to the left arm, left jaw or right arm, even to epigastrium or back. This pain may last for 15-30 minutes. At times, the pain may be totally absent and there may simply be a feeling of uncomfortable pressure in the chest sometimes felt as 'gas' or abdominal bloating.
- Anxiety: Fear of impending death
- Sweating
- Breathlessness
- Nausea or vomiting
- Unusual wind or gas problem
- Fainting and unconsciousness (Collapse/ syncope)