

## Alzheimer's Disease

Dementia is a broad term used to describe deterioration in brain function resulting in memory problems, personality changes, language and behaviour problems. Alzheimer's disease is the most common type of dementia. According to the Alzheimer's society there are more than 750 000 people suffering from it. It is rare before the age of 60 and is more common in women. Alzheimer's is caused by destruction of brain cells (neurons). These cells cannot be replaced and there is progressive deterioration with time. With time plaques and tangles develop in the brain along with decrease in the level of neurotransmitters, which are chemicals responsible for passing messages between the brain cells.

### Course

The onset of Alzheimer's is often difficult to pinpoint. It starts with forgetfulness and difficulty in finding the right word which are common problems associated with ageing. As the disease progresses the person finds it difficult to remember, reason, understand and communicate. Initially there are subtle personality changes, which become more overt over time. Patients can also lose sense of time and place. They can get dressed in the middle of the night or wander off and get lost even in familiar surroundings.

### Aetiology

Genetic factors contribute in a very small number of cases. It is more prevalent in people with learning difficulties. Head injury, high blood pressure and raised level of lipids (fat in the blood) have also been implicated

### Investigations

There is no single diagnostic test. Physical examination and blood tests are done to exclude common causes of confusion. Memory tests, which include questions about attention, concentration and language skills are carried out. Brain scan (MRI) is also routinely done. (SPECT, single photon emission computerised tomography, scans look at the blood flow through the brain rather than at the structure of the brain). Patients may be referred for a comprehensive memory assessment to a psychologist or to a memory clinic.

### Legal aspects

Patient has a responsibility to inform DVLA if they have been diagnosed with dementia. Diagnosis does not mean that the patients will have to give up driving but the license will need to be renewed on a yearly basis.

### MDT

Professionals like physiotherapists, occupational therapists, social workers, speech and language therapist, community nurses and social workers can be involved to help patient retain their independence for as long as possible. But it is important to find the right balance between remaining independent and safety. Certain adaptations or modification can be fitted in the patient's home like railings, support to get in and out of the bath and chair lifts. There are state benefits that people with dementia and their carers are entitled to. As dementia progresses there is a gradual decline in skills needed to carry out activities like cooking, bathing and dressing. Social services offer

services like meals on wheels and carers can provide assistance with activities of daily living.

### Respite and long term care

There are short-term respite places provided by hospitals, residential and nursing homes. This helps to take the strain of the carers and share the burden of care with the carers and give them time to recuperate. If it becomes difficult to care for patients at home, residential and nursing home placements can be arranged depending on the needs of the patient.

### Medicines

Alzheimer's disease cannot be cured but drug treatment can slow down the progression of the disease. Aricept (Donepezil), Exelon (Rivastigmine) and Reminyl (Galantamine) belong to the group acetyl cholinesterase inhibitors. Acetylcholine is a chemical in the brain, which helps pass messages between the brain cells. It is broken down in the brain by another chemical called acetylcholine esterase. In Alzheimer's disease there is reduced acetylcholine concentration. Acetyl cholinesterase inhibitors stop the breakdown of existing acetylcholine and hence improve symptoms. Not everyone benefits from treatment. People who benefit show an improvement in the first 2-3 months of treatment. Common side effects include loss of appetite, diarrhoea, nausea, vomiting, sleep disturbances and headache.

(These drugs are not prescribed for patients with MMSE of less than 12)

Reality orientation, reminiscence therapy, Snozelen (sensory therapy), memory aids like large clocks with time and date displays may also be helpful.

### Organizations:

Alzheimer's society

Age concern

Carers UK