North West Dementia Centre

DIFFERENTIAL DIAGNOSIS OF DEMENTIA – FACTSHEET

Diagnosing dementia is a two stage process. The first stage is to establish a diagnosis of dementia whilst the second is to elucidate the cause of the dementia. When assessing someone who has memory problems it is important for the clinician to remember that not all people with memory problems have dementia.

There are several conditions which mimic dementia and can be easily missed if the clinician is not actively looking for them. The main alternative diagnoses are:

- Delirium
- Depression
- Drugs
- Normal age-associated memory changes
- Mild cognitive impairment

Taking a detailed history from a patient and collateral history from a relative, carer or someone who knows the patient well is paramount to making an accurate diagnosis.

Delirium

Delirium is an acute disturbance of brain function which is nearly always associated with physical illness. Like dementia, there is disturbance of memory, language skills and orientation. The symptoms occur more suddenly in delirium: developing in a matter of hours and days, or rarely weeks, rather than the months and years dementia takes to develop. In delirium, however, there is more likely to be a disturbance of consciousness with the patient showing reduced clarity of awareness of the environment. Decreased attention is also more evident in people with delirium compared to those with dementia and they frequently have reduced ability to sustain or shift attention when talking to someone. Hallucinations can occur in both conditions but more frequently in delirium. Over half of people with delirium will suffer from hallucinations which are usually visual and often cause the patient to become fearful and agitated. Other features of delirium are that speech may be incoherent at times, sleep can be disturbed and the patient's activity can increase or decrease. The symptoms of delirium fluctuate and the person can have periods of lucidity when he/she appears back to his/her old self. This rarely happens if the person is suffering from dementia.

One of the key features of delirium is the onset of symptoms being associated with the presence of a physical illness. Any physical illness can cause delirium but common causes include infection, dehydration and pain. People who have recently undergone surgery are at increased risk of developing delirium. The main focus of the management of delirium is to find, and treat, the underlying cause. If delirium is suspected it is important for the patient to have a full physical examination, blood tests and other investigations.

Features that help differentiate delirium and dementia include rapid onset, short duration and disturbance of consciousness that often waxes and wanes between agitation and lethargy. People with dementia are at increased risk of developing delirium and therefore any sudden change in their abilities or behaviour should be investigated so delirium can be excluded.

Depression

People with depression often complain of memory problems. It can be problematic to differentiate between depression and dementia but there are salient features which help to tell them apart. People with depression are more likely to complain of the memory problems themselves, while it is often the relatives and carers of people with dementia who notice the memory difficulties first. Both conditions can cause memory impairment and poor concentration, but people with depression can also experience sleep and appetite disturbances, reduced enjoyment and loss of energy. They are also low in their mood and are often tearful. Unlike people with dementia, people with depression have negative thoughts about themselves, expressing guilty feelings, worthlessness, hopelessness and sometimes thoughts about death.

The duration of symptoms is usually shorter for depression than dementia and a past or family history of depression also makes depression the more likely diagnosis. It is, however, unusual for depression to present for the first time after the age of sixty in the absence of a precipitant such as a loved one dying.

Depression can impair performance on memory tests in people of all ages, but especially the elderly. People with depression have particular problems learning new information and recalling it. Their memory deficits are at least partially related to poor attention and distractibility. On memory tests the depressed person often cooperates poorly or exhibits poor effort, producing incomplete answers or frequently answering, "I don't know". It is vital to identify a depressive illness as appropriate treatment (e.g. with anti-depressant medication) can resolve mood and memory symptoms completely. Depression can coexist with dementia which can be difficult to recognise, but constant vigilance can assist clinicians in recognising depressive symptoms and treating them appropriately.

Drugs

Many medications can cause memory problems and there should be a high suspicion if the memory symptoms appeared to start soon after a new medication was commenced. Drugs which are particularly associated with memory impairment are those that are known to affect the central nervous system, such as medication for epilepsy and Parkinson's disease. Chronic alcohol abuse or the use of illicit drugs can also affect the memory function. A period without the suspected drug may prove its influence on the person's cognitive ability.

Normal age-associated memory changes

Although it has been a controversial subject, it is now widely accepted that cognitive performance declines with age. Specifically, it has been reported that the ability to learn new information declines but recall following prompts remains stable. It is, however, also accepted that age-related declines are not inevitable and when it does occur, it is age-related diseases that are often responsible. It is imperative for all people with memory complaints to undergo careful evaluation and it is not appropriate to assume that memory problems, at any age, are just a normal part of growing older.

Mild Cognitive Impairment

Mild Cognitive Impairment (MCI) is a relatively new concept. It describes people with memory complaints who have significant objective memory impairment but are still able to function at the same level that they always have done. As their activities of daily living are intact, they do not meet the criteria for dementia. MCI is considered to be a transitional stage from normal ageing to dementia. As people with MCI are at increased risk of developing dementia, they should be monitored closely for any deterioration of their cognitive or functional abilities.

Fact Sheet on dementia is available from the North West Dementia Centre – details below.

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The views expressed in this factsheet are those of the author, not necessarily those of the NWDC.

For further copies of NWDC fact sheets contact the North West Dementia Centre on 0161-275-5682 or nwdc@manchester.ac.uk. Alternatively write to the Information Officer, North West Dementia Centre, Dover Street Building, The University of Manchester, Oxford Road, Manchester. M13 9PL.