TUTOR NOTES

Old Age Psychiatry CBL 2: Problems remembering

Learning outcomes:

1) To be aware of the diagnostic criteria for dementia
2) To be aware of the key clinical features of Alzheimer's disease
3) To be aware of investigation findings that support a diagnosis of Alzheimer's disease and of the limitations of these investigations
4) To be aware of medications used for the cognitive symptoms of Alzheimer's disease
5) To be aware of key non-medication strategies for people with Alzheimer's disease and their families.

Dorothy is an 84 year-old lady. She attends the local memory clinic with her daughter after being referred by her GP. She herself thinks that her memory might be a little worse than it was in the past. Her daughter Alison reports a 2-3 year history of increasing difficulties remembering things that have happened and things that they have spoken about in the recent past. She notes that Dorothy's memory for things in the more distant past is quite strong, but that often she will forget even within the same conversation something that Alison has just told her. At first Alison put this down to Dorothy growing older but over time it has become gradually more noticeable and it is now making it difficult for Dorothy to manage with many day to day tasks without support. Dorothy lives alone and has done since her husband Charlie died three years ago. Once a week she meets friends in a local café and twice a week she goes to her club. If there is ever change in the arrangements for these activities, Dorothy asks Alison repeatedly in the days beforehand. She often asks repeated questions about other things too. Alison lives in the same town and visits several times a week; she helps Dorothy with her shopping, which tends to be pretty much the same things every week. Alison notices that Dorothy doesn't seem to attentive to the cleaning and often thinks that she has done the vacuuming when it looks like she has not. Dorothy eats mainly ready meals now which go in the microwave; she had had some difficulties leaving pans on the hob a few months ago and she agreed with Alison that she would find ready meals easier to manage. Dorothy's bills are mostly on direct debit but whereas she used to deal with letters that were addressed to her, she passes them to Alison to help her these days. Dorothy does not drive and uses her bus pass to get around. She is still able to get the bus to the café to meet her friends.

Dorothy's sister lives in a residential home and has Alzheimer's disease.

1) Does Dorothy have dementia?

- Based on the history, dementia seems likely

2) How is dementia defined?

- ICD10 definition of dementia: dementia is a syndrome due to disease of the brain, usually of chronic or progressive nature, in which there is impairment of multiple higher cortical functions, including memory, thinking, orientation, calculation, learning capacity, language and judgement. Consciousness is not clouded. The impairments of cognitive function are commonly accompanied, and occasionally preceded, by deterioration in emotional control, social behaviour, or motivation. This syndrome occurs in Alzheimer disease, in cerebrovascular disease, and in other conditions primarily or secondarily affecting the brain.

3) Which points in Dorothy's history support this diagnosis?

- Gradual decline in cognition over time
- Decline in some areas of activities of daily living – e.g. housework, cooking, struggling to cope with changes in routine. These difficulties suggest decline in multiple cognitive domains.
- Lack of information supporting other diagnoses
- Age group in which dementia is common (NB not every older person with memory problems has dementia, dementia can occur in younger people)
- Absence of other symptoms that would suggest another form of dementia

4) What type of dementia is most likely to be causing Dorothy's symptoms? Why?

- The most likely diagnosis is of Alzheimer's disease.
    - Alzheimer's disease is the most common cause of dementia.
    - Report of a gradual decline over time in cognition and activities of daily living.
    - Particular difficulty with memory loss for recent events and conversations – this type of memory difficulty is characteristic of Alzheimer's disease and is very often the first symptom that people notice and report.

5) What are some other possible causes for Dorothy's symptoms?

- Other types of dementia – e.g. vascular dementia or co-morbid cerebrovascular disease, dementia with Lewy bodies, although history does not point towards either of these
- In all presentations any other general health causes need to be ruled out – long history in this case points away from delirium
- Other intracranial causes – subdural haematoma, meningioma (very unlikely)
- Depression/anxiety other mental health/psychological difficulties must always be considered and explored as a possibility – from the information available in this case it seems unlikely (e.g. duration of symptoms, lack of report of mood symptoms), but it is important still to ask about mood and associated symptoms in the assessment of possible dementia.

6) How would you test Dorothy's cognition? What type of difficulties will be most obvious on cognitive testing? Is the cognitive test score diagnostic?

Tutor notes:

- Many different brief cognitive tests – e.g. ACE3, MOCA have suggested cut-off values
- Also remote versions of ACE3 and MOCA available, TICS-M used by some
- It is important to be familiar and confident with whichever test is being used and to have received appropriate training
- If Dorothy has Alzheimer's disease, she will struggle most with delayed recall, e.g. recalling a word list or address after a few minutes' delay
    - She is likely to have difficulties on several if not all cognitive domains tested

- Many cognitive tests have "cut-off values" based on normative data
    - People with a high level of premorbid intellectual function may score normally on basic cognitive testing and in these cases further assessment may be necessary (i.e. neuropsychological assessment if appropriate).

    - Low educational level, sensory impairment, language/speech problems and many other factors can affect cognitive tests scores and so scores must always be interpreted according to individual context

    - No cognitive test can diagnose dementia

7) a) Would you do any blood tests? Which?

- Blood tests usually include at least FBC, U&E, LFT, thyroid function, ESR/CRP, calcium, lipids, HbA1c

b) Why do we do blood tests when we suspect dementia?

- To rule out reversible causes or (more likely) to identify factors that may be exacerbating cognitive impairment
- In rare/complex cases (e.g. young onset dementia) and if the clinical presentation indicates, more advanced and specialist blood tests may be requested
- As yet there are no blood biomarkers for Alzheimer's disease

8) Dorothy has an MRI brain scan. It is reported as showing "Generalised atrophy and moderate bilateral hippocampal atrophy. There is mild periventricular small vessel ischaemic change"

a) Why was an MRI scan requested?

- Rule out reversible causes
- Assist in identifying subtype of dementia
- Not everyone with possible dementia needs a scan and this must be discussed with the patient (and family)
- CT scanning is also often used and there is some debate about this vs MRI. MRI is seen as gold standard because it provides higher resolution images and differentiates cerebrovascular disease better than CT; some argue that this difference does not affect diagnostic clarity or management in many cases.

b) Does this help to understand the cause of Dorothy's symptoms better?

- The finding of global and hippocampal atrophy and lack of other significant findings points towards Alzheimer's disease
- The history remains the most helpful source of diagnostic information

c) What do you think is the significance of the finding of small vessel disease?

- This is a common finding in older people and unlikely to be causing significant cognitive impairment. Management of vascular risk factors is an important consideration in all older people.

9) A person-centred care plan is developed following the assessment and diagnosis in the memory clinic. What might be included in this?

- Focus on what is important to Dorothy, ways of maintaining independence
- Link with local dementia advisory service e.g. for support with accessing appropriate financial benefits, social groups
- Link with local carer support services/groups for Alison
- Post diagnosis support/psychoeducation groups – individual support if needed
- Cognitive stimulation therapy (evidence-based therapy usually group based – individual and app-based versions available)
- Support will often depend on what is available locally
- Medication
  - Consider prescription of cholinesterase inhibitors/memantine
  - Review and consider stopping/changing medications that may be exacerbating cognitive impairment e.g. anticholinergics
- Making sure that any risk is identified and addressed (e.g. driving)
- Consider need for assessment/correction of any sensory impairment
- Offer opportunity to be involved in research
- Offer support with advanced care planning e.g. lasting power of attorney, advanced directives