Management of behavioural problems, psychosis and dementia in Parkinson’s Disease.

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Behavioural problems

Vivid dreams, REM sleep behaviour disorder, hallucinations and obsessive behaviour can be individually or collectively experienced by some patients with Parkinson’s Disease. Some patients have these features in a mild form and in some cases patients are able to ‘put up with them’.

However when these features impact on a patient’s quality of life, the health professional should alert the patient’s treating specialist to review Parkinson’s treatment as soon as possible. Examples for referral and review include:

- The nature of the dreams changing from a benign to a threatening or persecuting nature. Vivid dreams in Parkinson’s Disease tend to take on a regular theme (Some patients talk of previous work experiences or someone chasing them).
- Hallucinations becoming more vivid, regular and frightening. The nature of the hallucination may sometimes change from a non interactive phenomena (eg the patient sees the person on the other side of the room but does not converse) to interacting with the hallucination. The number of hallucinations may increase. Some patients may begin to experience them in the daytime as well as in the evening (co-inciding with the sundown period). The patient may also experience auditory phenomena such as hearing an orchestra playing, a bell ringing or group conversations.
- The acting out of dreams begins to affect relationships and the safety of the patient. There is some evidence this may be related to nocturnal depletion of dopamine levels.
- Obsessive behaviour that has begun to impact on the patient and/or caregivers quality of life. Features may include excessive gambling, spending money excessively, collecting items for no justifiable reason, increased sex drive which the caregiver or partner finds upsetting. These are all features of dopamine dysregulation syndrome and should be taken seriously.

Any of the above accompanied by emergence of cognitive difficulties should act as a red flag to practitioners to prompt a referral to secondary care.

Psychosis and Parkinson’s Disease

Psychosis can emerge as a precursor to dementia in Parkinson’s Disease, but can sometimes be caused by the medication used to treat Parkinson’s itself, or other precipitating factors. It is crucial that any practitioner who first sees the patient with these symptoms contacts the patient’s specialist before altering treatment.

Management of psychosis in both secondary and primary care should be based on the following principles (2):

- Treat any precipitating medical condition (eg infection, dehydration)
- **Slowly** reduce then withdraw anticholinergics, Selegiline, Amantadine, and dopamine agonists (last in, first out rule)
- If absolutely necessary, reduce levodopa load slowly and accept deteriorating mobility
• Consider adding atypical antipsychotic (eg Clozapine. Note: Clozapine has a product licence for use in PD psychosis in the UK. Blood monitoring required). Author Note: Sometimes Quetiapine is used.

• Consider adding a cholinesterase inhibitor (refer to neuropsychiatry as appropriate). Author Note: eg Rivastigmine. Cholinesterase inhibitors are usually initiated by a Consultant Neurologist or Neuropsychiatrist in Stockport and not GP initiated.

• Prevent complications of immobility (eg DVT prophylaxis)

Note: Do not use Haloperidol or similar antipsychotic in patients with Parkinson’s Disease.

Haloperidol blocks dopaminergic transmission in motor pathways, so motor function deteriorates and the patient may become immobile.

Studies with Risperidone and Olanzapine in PD psychosis have also shown motor function deterioration with these agents (2)

Dementia

75-80% of Parkinson’s Disease patients may eventually develop dementia during the course of the disease, the risk factors including: akinetic dominant phenotype, early presence of hallucinations and subtle cognitive deficits (1).

There is a higher risk of death for patients with dementia and Parkinson’s Disease than those without, and survival rates are significantly shorter compared with non demented patients (3)

There is potentially an overlap of other pre-existing conditions which complicate the diagnosis of dementia in Parkinson’s Disease and it may be useful to consider the Royal College of Physicians definition:

• Dementia developing more than 1 year after the onset of the motor features of PD is referred to as PD with dementia (PDD).
• Dementia developing within 1 year of the onset of motor features is classified as dementia with Lewy bodies (4)

Parkinson’s medication may need to be reviewed, as Parkinson’s Disease medication may exacerbate confusion and hallucinations. For this reason a referral to the treating specialist is essential.

The three Acetylcholinesterase inhibitors sometimes used for the treatment of Dementia in Parkinson’s Disease are Rivastigmine (Exelon), Galantamine (Reminyl) and Donepezil Hydrochloride (Aricept). These must only be initiated by a specialist used to treating dementia in Parkinson’s Disease.

References