Psychiatric aspects of Parkinson’s disease – an update

Dr Chris Collins
027 2787593
chris.collins@cdhb.health.nz

Disclosures: none
An Essay on the Shaking Palsy.

Chapter I.
Definition—History—Illustrative Cases.

Shaking Palsy. (Paralysis Agitans.)

Involuntary tremulous motion, with lessened muscular power, in parts not in action and even when supported; with a propensity to bend the trunk forwards, and to pass from a walking to a running pace: the senses and intellects being uninjured.

The term Shaking Palsy has been vaguely employed by medical writers in general. By some it has been used to designate or—
Non-motor aspects – physical

- Sensory – anosmia, visual symptoms
- Speech and swallowing dysfunction
- Autonomic – constipation, orthostasis, urinary and sexual dysfunction
Non-motor aspects – mental / behavioural

- Cognitive dysfunction –
  - Bradyphrenia; executive dysfunction; mild cognitive impairment (MCI)
  - Dementia
  - Delirium
- Fatigue and apathy
- Mood changes
- Anxiety
- Psychosis
- Sleep disorders
- DA dysregulation syndrome; punding; impulse control disorders
- Premorbid personality correlations
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Mood disorders in PD

- Community point prevalence ~ 5-10%
- ~40% in neurology clinic samples
- Half MDD, half ‘minor’ depression; emotional lability also common
- Diagnosis difficult - retardation, unreactive facies (amimia), anergia, sleep problems, weight loss don’t reliably specify depression
Mood disorders in PD (cont.)

- Aetiology: organic (some precede motor signs), reactive (especially ‘minor’ depression); following STN DBS
- More frequent with ®sided motor symp’s in early stages; more frequent with early-onset PD; more frequent in akinetic-rigid variant
- In later stages depression correlates with disability levels
- In some cases mood parallels motor fluctuations/ changing levodopa levels
- Mania in ~ 3%
Treatment of depression in PD

- Tricyclics (nortrip., desip.) limited by side effects
- MAOIs (and St John’s wort) contraindicated; ? moclobemide
- SSRI’s usually tolerated but ? incr. EPS
- Venlafaxine and duloxetine
- Bupropion
- ECT perhaps under-utilised
- Repetitive transcranial magnetic stimulation (rTMS)
- Pramipexole
RCT’s for depression in PD

- **Desipramine vs citalopram** - Devos D et al 2008 Mov Disord 23(6):850
- **Nortrip vs parox** - Menza M et al 2009 Neurology 72(10):886
- **Parox 40mg vs venlafax 225mg** - Richard IH et al 2012 Neurology 78(16):1229
- **Bupropion** - no RCTs
- **ECT** - no RCTs; review: Borisovskya A et al 2016 Neurodegen Dis Manag 6(2):161-76
- **rTMS** - Fregni et al 2004 J Neurol Neurosurg Psychiatry 75(8):1171–4
Psychosis in PD

- Prevalence = 60% (by NINDS/NIMH criteria)

- More likely if older, cognitively impaired or higher doses of tx (NB not always iatrogenic)

- Can occur with or without delirium; often nocturnal; variable insight; often not disclosed

- Key precipitant for placement

- All anti-Park. drugs can cause psychosis

- Aetiology: DA/5HT imbalance, DA/cholinergic imbalance
Psychosis in PD - phenomenology

- Spectrum of severity
- Characteristic visual hallucinations
- ‘Presence’ and ‘passage’ (extracampine) hallucinations
- Misidentification syndromes
- Non-visual (auditory, tactile)
- Delusions (persecutory, jealous)
Management of Psychosis in PD

- Education, reassurance; CBT
- Night lighting
- Consider gradual reduction/stoppage of antiparkinson’s drugs in this order: anticholinergics>selegiline>amantadine>DA agonists >COMT inhibitors>L-dopa
- Conventional neuroleptics contra-indicated
Review paper: Jethwa KD & Onalaja OA (2015) BJPsych Open 1, 27-33

- **Risperidone** - effective short term, but even low doses can worsen motor sx’s (often delayed)

- **Olanzapine** – ineffective; **Aripiprazole** – poorly tolerated

- **Quetiapine** – RCT’s suggest not effective (average dose 50-100mg)

- **Cholinesterase inhibitors** - may be effective (no controlled data)

- **Clozapine** - the current treatment of choice; low doses (average 25-37.5mg daily)


- **Ondansetron; Remoxipride; ECT**
Morbid compulsive and impulsive conditions

- Dopamine dysregulation syndrome (DDS)
- Punding
- Impulse control disorders

- Frequently overlap
- More common in early onset PD
- Seldom self-present
- Caused by sensitisation in ventral striatum from long term dopaminergic med’n; plus dysfunction of DA-assoc reward systems (esp ventromedial frontal cx); ? plus amygdala dysfunction
Dopamine dysregulation syndrome

- Compulsive overuse of antiparkinsonian medication, in addictive fashion
- Prevalence 3-4%; more likely to have risk/sensation-seeking personality
- ‘Off-dysphoria’ leads to craving; dishonest and manipulative drug-seeking behaviour; often aggression; poor insight
- Assoc. mainly with L-dopa over-use
- Mx: tight control of drug admin; clozapine, aripiprazole, duodenal L-dopa infusion; DBS.

Punding

- ‘Excessive hobbyism’
- Intensive fascination with repetitive tasks (acknowledged as non-constructive but experienced as pleasurable)
- Problematic when takes up excessive time or interferes with functioning; dysphoria when prevented from carrying-out
Distinction from OCD

Associated with dyskinesias and ‘on’ state; typically higher doses of meds (? DA agonists)

Mx: try to reduce doses; behavioural strategies; reduce DA, ?add amantadine
Impulse control disorders

- Mainly hypersexuality, pathological gambling, overspending
- Strong association with DA agonists - management always involves consideration of dose reduction

- Hypersexuality – overwhelming majority are men
  - Spectrum from unwanted flirtation/sexual preoccupation to paraphilias and sexual predation
  - Tx: CBT; fluoxetine; occasionally anti-androgen therapy

- Gambling – all types (may be internet based); prevalence 2.3-8% of PD patients
  - Tx: CBT; ? topiramate, naltrexone