Parkinson's Disease – Acute Presentations and Top Tips for Management on the Acute Medical Ward

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Declaration for Jason Raw

I have no financial interests or relationships to disclose with regard to the subject matter of this presentation.

Acute Parkinson's

- How Parkinson's patients present to hospitals
- Falls
- Aspiration risk and Nil By Mouth
- Neuroleptic-like Malignant Syndrome
- Rehabilitation
- Palliation
- Take home Top Tips

Acute Parkinson's - admissions

- Length of Stay increased
  - More likely to be delirious, decondition, fall in hospital
- Less likely to return to own home from hospital
- Arrival on Friday night with weekend to deteriorate
- Put NBM as a precaution or drowsy, or coughs/splutters once
- No or few regular medications given
- Stiff and confused in bed, so kept in bed. Days pass without solid steps forward – very long length of stay beckons

Burden of PD

- Research -
  - Turkey
  - 31.6% - Infectious diseases
  - 27% - Trauma
  - 14.5% - Cardiovascular emergencies
  - 11.8% - Cerebrovascular emergencies
  - 7.9% - Gastroenterological emergencies
  - 6.6% - Electrolyte disturbances
- Same as most elderly patients

Burden of PD

- Newcastle
  - 14% - Falls
  - 11% - Pneumonia
  - 9% - UTI
  - 8.2% - Stroke/TIA
  - 8% - Reduced mobility
  - 8% - Psychiatric
  - 7.2% - MI
  - 6% - Angina
  - 6% - Heart failure
  - 4% - Fracture
  - 4% - Orthostatic hypotension
  - 4% - Surgical
  - 3% - GI bleed

Burden of PD

- Less common presentations:

- New diagnosis of PD (rare)
- Missed medication or taken too many medications
  - Dossett box or even medication carers
- Acute worsening of PD (myth), take detailed history of recent weeks/months
- Behaviour problems with PD dementia – family carer stress
  - Hallucinations, delusions, paranoia, aggression

NBM

- Become *the* issue with Parkinson's patients admissions
- Often placed NBM in A&E by docs there or by medicine clerking docs
  - History of swallow issues, coughing on food, drowsy, the-thing-you-do-when-someone-with-parkinsons-comes-in-unwell-with-a-chest infection
- Bottom Line: want to try and keep patient on oral meds if possible
  - Prescribe as normal, give when most awake, try to get the total doses in every 24 hours even if some delayed
  - Options are limited and not ideal if patient goes NBM
  - Speech and Language therapy are helpful and usually 'get it' with PD
- NG tube or Rotigotine patch

NG tube

- If nasogastric tube chosen, make sure its done without too much delay
- Change medications by enlarge to dispersible or crushable versions
  - Madopar disperses, Sinemet crushes, stalevo/stanek/sastravi crushes
- NG tube tolerance is low.
  - If delirious and agitated – may not be a tolerated option
  - If mild confusion/delirium only, largely cooperative (lets the tube go down)…
    - Consider Mittens at night, with agreement or with DOLS
  - If it comes out – needs to go back in until not needed
  - Consider PEG tube referral early, if foresee long recovery. Tolerated better, can be a temporary option

Rotigotine patch

- Not a great option, just an if-you-have-to-option
- Dopamine agonist, developed to be a different option to pramipexole and ropinirole, but as a patch. Never took off in a big way.
  - Stickiness of patches
  - Less convenient than a once-a-day swallow and it's gone tablet
- Would we give it to an outpatient?
- It doesn't do what you want it to do.
  - If NG not an option, then it'll have to do
- Lower doses, use a decent online calculator: Home | PDMedCalc
  - https://pdmedcalc.co.uk


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Apomorphine

- Very potent.
- In outpatients for reasonably robust patients
- Severe offs and dyskinesia
- Severe tremors

- It is not a rescue drug for unwell, aspirated, drowsy PD patients.

- If on it already – try to continue it.

Apomorphine

- Can family come in to start/stop pump until figured out?
- 24- hour number on pump to call for advice – can get local rep
- Patient and family should have contact for their apomorphine nurse

- YouTube for set up videos

- Could be the cause of the admission if hallucinations/delusions.
- Reversible treatment, can be restarted down the line

Falls

- Multiple reasons for PD-related falls
  - Balance impairment
  - OFF periods
  - Freezing of gait
  - Truncal dyskinesia(rare)
  - Dementia related judgment impairment
  - Postural/orthostatic hypotension
  - Visual issues (atypical)
- It’s surprising they don’t fall more often

Postural hypotension

- 20mmHg drop after 3 minutes
- Presence of symptoms is key
- Treatments:
  - Aim for *symptomatic* improvement
  - Increase fluid – 8-10 drinks per day
  - Review medications, look up the side-effects, anticholinergics,
  - ‘Autonomic deconditioning’
  - Drugs: midodrine, fludrocortisone, pyridostigmine
  - Blood transfusion

Neuroleptic-like malignant syndrome (NLMS)

- Occurs in Parkinson’s disease, less and less common
- High fever (~40˚C)
- Rigidity
- High CK
- High WCC
- Rhabdomyolysis, renal failure

Neuroleptic-like malignant syndrome (NLMS)

- Treatment
  - Cooling
  - IV Fluid
  - Antibiotics
- Why has this occurred?
  - Reduction or withdrawal of treatment
  - Failure to deal with NBM soon enough.

Neuroleptic-like malignant syndrome (NLMS)

- Replace L-dopa via NG tube –urgent
- Apomorphine s/c
- Methyprednisolone has been tried

- Mortality 10-30% (worse if older)
- May be happening more often than you think!

Rehabilitation and Palliation

- Discuss with therapists, may take time
- Sessions one to two hours after doses
- Be mindful of autonomic deconditioning
  - Keep sitting out, use Tilt-in-Space chair, reassure therapists
  - If don’t do it – will end up in care/bed or chair bound

- Palliation/EoL: use 2-4mg rotigotine patch, no more

Top Tips

1. Try to avoid NBM
2. Mittens at night for NG tolerance
3. Be aware of Autonomic deconditioning
4. Postural hypotension: treat symptoms not numbers, scheduled ten drinks, ?blood transfusion
5. Apomorphine is not the answer to NBM
6. YouTube for set up videos and use the family for apomorphine
7. Neuroleptic-like malignant syndrome - avoidable