PARKINSON’S – AN OVERVIEW

Gill Forwood Parkinson’s Nurse Specialist
Parkinson’s Treatment Centre, Gorseinon Hospital.
What is Parkinson’s?

• A chronic, progressive, neurological, degenerative disorder
• Occurs when there is loss of dopamine producing cells in the substantia nigra within the basal ganglia
• Clinical signs evident when about 80% are lost
• Now known that condition probably starts many years before clinical signs evident
Incidence

• Approximately 127,000 people in the UK with PD (3) 10,000 new cases per year in UK. 6,000 in Wales and Approx 1,500 in ABMU
• Affects :-
  - 1 in 500 of the general population
  - 1 in 100 over 60 years
  - 1 in 50 over 80 years
  - 1 in 20 diagnosed will be aged under 40
Parkinsonism

• Idiopathic- most common – Parkinson’s, PD
• Vascular
• Parkinson’s Plus Syndromes
  • Progressive Supra Nuclear Palsy (PSP)
  • Cortico Basal Degeneration (CBD)
  • Multiple System Atrophy (MSA)
• Toxin induced Parkinsonism (MPTP, copper)
Causes

- Environmental factors
- Genetic susceptibility
- Familial risk
- Drug Induced - neuroleptics
Signs & Symptoms

• **Cardinal signs** - required for diagnosis
  • Tremor
  • Bradykinesia
  • Muscular rigidity
  • Posture and balance problems - later on
Motor Symptoms

• Initially unilateral
• Tremor
• Mobility problems
• Difficulty with fine manual tasks
• Reduced facial expression
• Change in posture and gait
Motor Symptoms cont.

• Poor balance and falls
• Swallowing problems — drooling, choking, aspiration
• Initiation problems
• Freezing
• Communication difficulties
Non Motor Symptoms

• Cognitive deficiencies – difficulty problem solving, Bradyphrenia, Short term memory loss, Visuo-spatial problems
• Dementia
• Depression
• Anxiety
• Apathy
Non Motor Features cont.

- Olfactory deficiencies (smell and taste)
- Sleep disturbances – RLS, REM sleep disorder, vivid dreams, nightmares, hallucinations
- Fatigue
- Pain
- Bowel and bladder problems
- Sexual dysfunction
The Stages of Parkinson’s

- **Prodromal** – Period of up to 20yrs before motor symptoms occur. Hyposmia, REM sleep disorder, Excessive daytime sleepiness, Depression, Anxiety
- **Stable** - good predictable response to therapy, No motor fluctuations
- **Unstable** - Fluctuations, Delayed ‘on’, wearing off, Increasing Non Motor Symptom burden, Balance problems
- **Advanced** - Repeated falls, increasing dependency, risk of choking/aspiration- pneumonia
- **Palliative stage** – Nursing Home, Palliative Care
Drug Treatment

**Gold standard** - Levodopa preparations – Levodopa plus a dopa-decarboxylase inhibitor to reduce side effects of nausea, vomiting and cardiovascular effects.

- Madopar (co-beneldopa- L-dopa and benserazide), Dispersible, Capsule and Controlled release
- Sinemet (Co-careldopa – L-dopa and carbidopa), Tablets in varying strengths, controlled release.
- Duodopa-continuous L-dopa gel via jej peg
- Stalevo
Drug Treatments cont.

• **Dopamine Agonists** – Pramipexole, Rotigotine, Ropinirole, Apomorphine

• **MAOB Inhibitors** – Selegeline, Rasagiline, Safinamide

• **COMT Inhibitors** – Entacapone, Tolcapone, Opicapone

• **Amantadine**

• **Anticholinergics** – Trihexyphenidyl
Drug Side effects

• Nausea, vomiting, drowsiness, postural hypotension, confusion, dry mouth, constipation

• Long term side effects of Levodopa - motor fluctuations:
  - End of dose deterioration
  - On/Off syndrome
  - Dyskinesia
  - Psychosis
  - Hallucinations
Management of Motor Fluctuations

• Adjustments to medication regime e.g.
• Increasing/decreasing dose, adding in another medication, splitting doses into smaller, frequent doses
• Apomorphine; injections or infusion
• Dupdopa infusion
• Deep Brain Stimulation
• Medication regimes can be very complex and individual
• Very important that medication regimes are adhered to especially timing
Drugs to Avoid in PD

• Anti-emetics
  Prochlorperazine (Stemetil)
  Metoclopramide (Maxalon)

• Safe anti-emetics
  Domperidone,
  Ondansetron,
  Cyclizine

• Neuroleptics
  Chlorpromazine (Largactil)
  Haloperidol (Serenace)
  Trifluoperazine (Stelazine)
Oral Hygiene problems

• Reduced dexterity – oral hygiene challenging
• Tremor
• Fatigue with repetitive action
• Dry mouth – drug reaction
• Sugar cravings
• Motor function affecting proper chewing
• Weight Loss – poorly fitting dentures
Oral Hygiene problems cont.

- Apathy
- Depression
- Cognitive decline with Forgetfulness - attention to personal care, Missed appointments
- Dyskinesia – grinding of teeth
- Motor fluctuations
Points to Take Away with you

• Correct times of medication is vital in maintaining normality for people with Parkinson’s
• Even with medication taken on time their control can fluctuate
• Early morning appointments may be problematic
• Parkinson’s symptoms eg. Tremor will worsen if out of comfort zone
• Parkinson’s is a complex and fluctuating condition- patients may walk into the department independently but may need assistance to leave
Thank you for listening,

Any questions?

Contact details

gillian.forwood@wales.nhs.uk
01792 704172