

Tremor

Disclaimer:
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References:
1. ebrainjnc.com
2. Neurology consultant lecture, RCGP, Dec 2017
3. Dr Alistair Church, GPwSI and neurologist associative specialist, PULSE Oct 2020

- Tremor in < 40, think Wilson's disease. Usually have slightly ↑ ALT.
- Exclude alcohol or hyperthyroidism or medication s/e.

- B2 agonist.
- Sodium valproate.
- Levodopa.
- SSRI.
- TCA.
- Lithium.

Essential tremor

Symptoms

- Action tremor.
- Upper limbs in 95%.
- Head in 34% (yes-yes, or no-no).
- Voice in 12%.
- FHx in 50%.

Investigations

- Should have a problem with at least one of the following:
- Pouring water into cup.
- Use spoon to drink water.
- Finger to nose.
- Spiral drawing.

Management

- Alcohol can settle it, but get rebound tremor after 3 hrs.
- Propranolol.
- Primidone.

if fails

- Topiramate.
- Gabapentin.
- Alprazolam.

Propranolol
- 120mg over 24 hrs minimum.
- 240-320mg optimal dose.
- LA better tolerated.
- Start low and titrate slow.

Primidone
- 12.5mg over 24 hrs.
- 250mg TDS max over 24 hrs
- Can be used with propranolol.
S/E
- Drowsiness.

Parkinson's tremor

- 10% < 45y
- Average age of Dx 65y.

Symptoms

Cardinal symptoms

- Tremor

- At complete rest.
- Postural.
- Action.
- Head tremor.

- Can make more obvious by distracting e.g. close eyes and count backwards.
- If suddenly abates when picks up a pen and starts writing, highly suggestive of PD.

- Hold hands outstretched.
- Present in dystonic, essential and cerebellar disorders.
- In PD the tremor stops, but may reappear with sustained posture 10-15 sec later (re-emergent tremor).

- Pour water from one cup to another cup.
- Occurs in dystonic and essential tremor.
- Not typical of PD.

- Finger to nose testing may bring out tremor during the activity, throughout the full phase of movement (limb kinetic tremor) or there may be particular tremor approaching the target (intention tremor implying ataxia).

- Occurs in dystonic tremor, essential tremor and ataxia.
- In PD can have chin or tongue tremor instead.

- If the first problem is tremor while holding a cup, the diagnosis will almost always be essential tremor or dystonic tremor, rather than PD.

- Bradykinesia

- ↓ Speed and amplitude of movements e.g.

- Finger taps.
- Hand grips.
- Pronation/supination hand movements.
- Toe taps.
- Heel stamps.

- Gross movements

- ↓ Arm swing.
- Not shifting position or gesturing when speaking.

- Often the first thing to go.
- Often put down to stiffness or old age.
- Look while they are walking fast to make this more pronounced.

note - Prominent problems with balance, gait instability and falls in the early stages of disease are a pointer away from PD and usually suggest progressive supranuclear palsy (PSP) or gait apraxia rather than PD.

- Rigidity

- If appears normal, ask them to tap the fingers of the other hand (Froment's procedure), to bring out a hidden increase in tone.

3 early symptoms =
- Thrashing in sleep (80% risk of developing PD).
- Poor smell
- Constipation.

Additional symptoms

- ↓ Blink rate.
- Restricted eye movements.
- Postural hypotension.
- Handwriting changes.
- Reading.
- Speech.
- Swallowing.
- Poor smell.
- Constipation.
- Depression.
- Shouting in sleep.
- Thrashing in sleep.

- Normal 12/min.
- PD = 6/min.
- PSP = 2-4/min.

- Some restriction of upward gaze is normal in elderly.
- A restriction in downward gaze is more suggestive of supra nuclear gaze palsy.

- Lying BP, then standing BP at 1min and 3 min.

- Continuing fall in BP from 1 to 3 min suggests autonomic dysfunction of multiple system atrophy (MSA).
- Diagnosis supported by postural dizziness, syncope (rarely) and urinary incontinence.

- Micrographia, not tremulous writing (think essential tremor).

- Disturbance of REM sleep.
- Hence, loss of normal muscle atonia during sleep.

Investigations

- Drug Hx for dopamine depleting medications e.g. Stemetil, SSRI, metoclopramide.

- Red flags

- Symmetrical tremor.
- Postural instability.
- Postural hypotension.
- Abnormal eye movements.
- Bulbar signs.
- Aphasia.
- Weakness.
- Apraxia (can't perform complex movements e.g. comb hair, brush teeth)
- Ataxia.
- Myoclonus (sudden jerky movements)

Management

- Refer to PD clinic or neurologist.
- No evidence early treatments change course of disease.
- Can treat or hold on. Treat if symptoms need treating else don't.
- Refer OT and physio if needed.
- Refer SALT if needed.

- Zo care prescribe medications:
- L-Dopa and decarboxylase inhibitors: (Sinemet/ Madopar).
- Monoamine oxidase inhibitors: Selegiline, rasagiline.
- COMT inhibitors: Entacapone, tolcapone.
- Dopamine agonists: Pramipexol, ropinorole, rotigotine, apomorphine.

Cerebellar tremor

Symptoms

- Usually perpendicular tremor when moving heel down the shin.

Investigations

Dystonic tremor

Symptoms

- Hand shaking on posture. Slow but does not fatigue as in PD. Neck is dystonic. Just touching head might calm it down.

Psychogenic tremor

Symptoms

???

Investigations

- Ask them to tap the other hand 1..2..3, and the 'tremor' hand will slow down to the same rate.
- Absence of finger tremor.
- Diagnosis of exclusion i.e. ensure no other pathological cause.