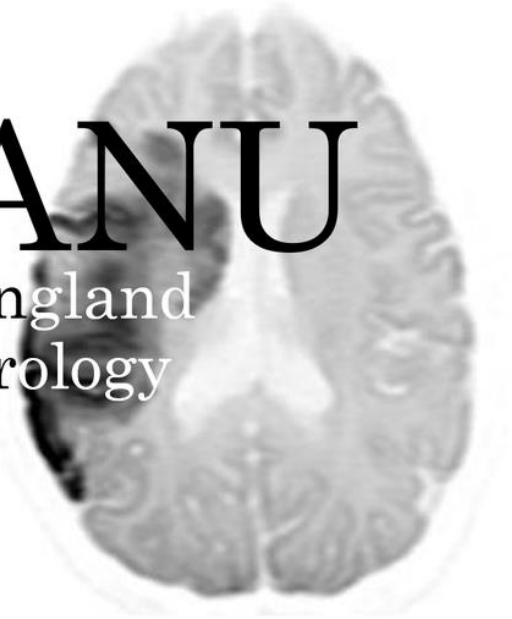
NEANU
North of England
Acute Neurology
Update



Acute Presentations of Chronic Neurological Conditions I

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Salford Royal NHS
NHS Foundation Trust

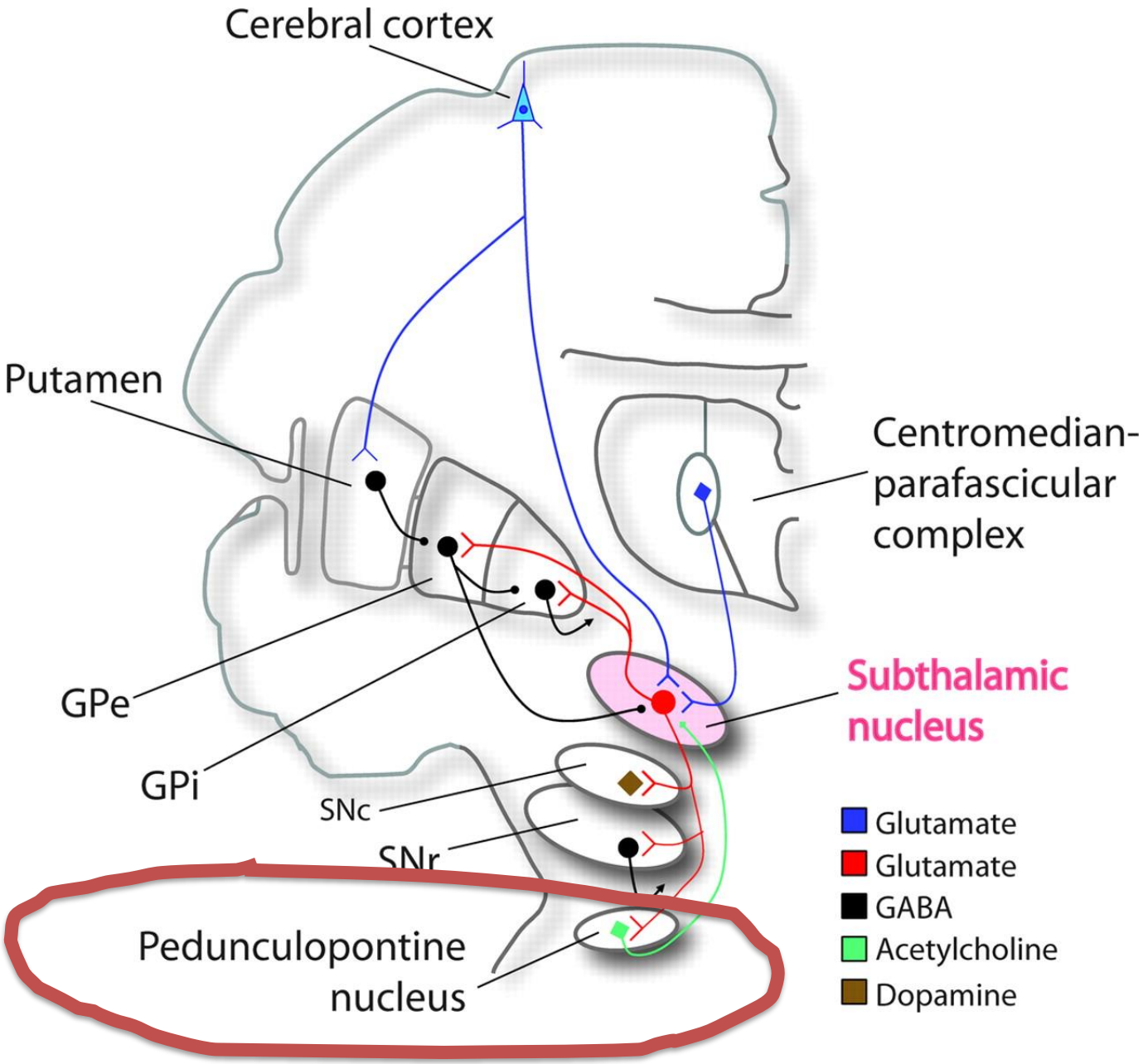
Case 1

- 68 year old gentleman
- Diagnosed with Parkinson's disease 7 years ago
- Under consultant elsewhere for PD
- Taking sinemet 187.5mg qds
- Admitted to your EAU with falls and worsening PD symptoms
- Asked to advise regarding increasing treatment


Management?

Case 1 – Drug Treatment Options

- A. Increase Sinemet to 250mg qds
- B. Add a dopamine agonist – eg ropinirole
- C. No change to medication
- D. Reduce Sinemet to 125mg qds
- E. Refer for consideration of Deep Brain Stimulation


Cerebral cortex
Putamen
Centromedian-
parafascicular
complex
GPe
GPi
Subthalamic
nucleus
SNc
SNr
Pedunculopontine
nucleus
Glutamate
Glutamate
GABA
Acetylcholine
Dopamine


4
5
6
7
8
VOLUME

Case 1 - Management

- Therapy Input – Physio / OT /SALT
- Increasing levodopa or adding other PD drugs not a good option
  - Won't Improve Symptoms
  - Will cause side effects – postural hypotension, confusion, psychosis, dyskinesia

If you remember nothing else from the PD section

Remember the cat.....

Case 2

- 74 year old gentleman
- Diagnosed with PD 10 years ago
- Admitted with #NOF
- PD medication not available
- Nil By Mouth as waiting surgery
- Asked to review from PD point of view


Management?

Case 2 - Management

- *** GIVE SOMETHING ***
- Eg Sinemet 125mg tds or qds
- Even if nil by mouth for surgery
- If can't swallow use ng tube + madopar dispersible
- If ng is not possible, rotigotine 2mg or 4mg OK but keep starting dose low (risk of psychotic symptoms)

Case 3

- 72 year old gentleman
- PD for 10 years
- Fairly stable on Sinemet 187.5mg qds
- Admitted with pneumonia
- PD control now very bad – fluctuating episodes of severe slowness / bradykinesia and severe dyskinesia


Management?

Case 3 – Drug Treatment Options

- A. Increase Sinemet to 250mg qds
- B. Add a dopamine agonist – eg ropinirole
- C. No change to medication
- D. Reduce Sinemet to 125mg qds
- E. Refer for consideration of Deep Brain Stimulation

Case 3 - Management

- PD goes bad with intercurrent illness
- Changing PD treatment doesn't usually help much – but
  - make sure they are getting it
  - make sure they are absorbing it
- Treat medical condition and PD will usually slowly improve (may take weeks)
- Not usually useful to alter PD treatment

Case 4

- 74 year old gentleman
- Diagnosed with PD 10 years ago
- Has done well on Sinemet 187.5mg qds
- Ropinirole PR 8mg daily
- Some mild cognitive issues over last year
- Admitted with acute confusion, hallucinations and incontinence


Management?

Case 4 - Management

- Exclude infection (but UTI over diagnosed in this scenario)
- Slowly withdraw agonists and other PD treatment until on levodopa monotherapy
- Will worsen PD symptoms so monitor swallowing
- Nurse in light room. Minimal disruptions
- Avoid typical antipsychotics eg haloperidol
- Consider quetiapine (<75mg/day), clozapine, rivastigmine, benzodiazepines

Case 4 take home message

- PD dementia causes FLUCTUATING confusion
  - Eg acute confusion and psychotic symptoms for 1-2 weeks then settles
- It just does this
- Frequently misdiagnosed as UTI

Case 5

- 72 year old lady
- PD for 12 years
- **DBS for PD since 2016**
- Fairly stable on Sinemet 125mg qds + DBS treatment
- Admitted with pneumonia
- PD has gone off – fluctuating episodes of slowness / bradykinesia and severe dyskinesia


Management?

Case 5 - Management

- Think of DBS as supplementing their levodopa intake
- If possible check DBS on and battery OK – patient may be able to do this
- Check no DBS battery site infection
- Then IGNORE DBS and manage as usual
- If not possible to check DBS then FORGET DBS and just manage as USUAL

Case 6

- 28 year old lady
- Know Myaesthenia Gravis – under Dr X at SRFT
- Well controlled until recently
- Prednisolone, Azathioprine, Pyridostigmine
- Admitted with diplopia, dysarthria and generalised weakness


Management?

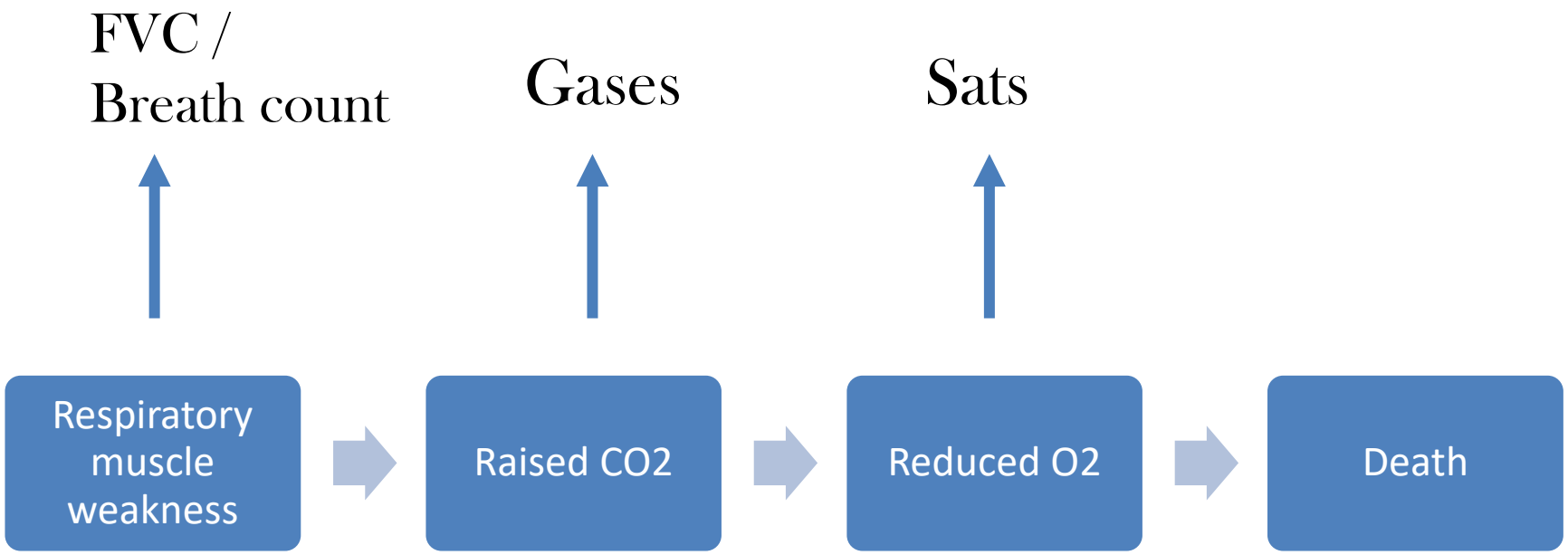
How may she die?

- Respiratory Failure
- Swallowing problems -> Aspiration
- Pulmonary Embolism

How may she die?

- Respiratory Failure
  - Assess Respiratory Function
  - Involve ICU if concern
- Swallowing problems -> Aspiration
  - NBM if any doubt
  - Urgent SALT assessment
- Pulmonary Embolism
  - HAT and consider prophylactic dose LMWH

Respiratory failure in neuromuscular disease



Why has she deteriorated?

- Intercurrent Illness?
- Have steroids been reduced recently?
- Has she started a medication which may have made things worse?
- No obvious reason (common) – condition waxes and wanes
- Depolarizing block (overtreatment with pyridostigmine) is very rare

Drugs which can worsen Myaesthenia

- Prednisolone
- Antibiotics – aminoglycosides – eg erthyromycin
- Betablockers - eg propranolol, atenolol
- Antimalarials
- Neuroleptics

Drug Management

- Discuss with neurology
  - Consider increasing pyridostigmine
  - Consider increasing steroids
  - Consider IVIG (or PLEX)

Myaesthenia – Take home messages

- Keep the patient safe – respiratory, swallowing, DVT
- Neurology on call can advise on altering drug treatment

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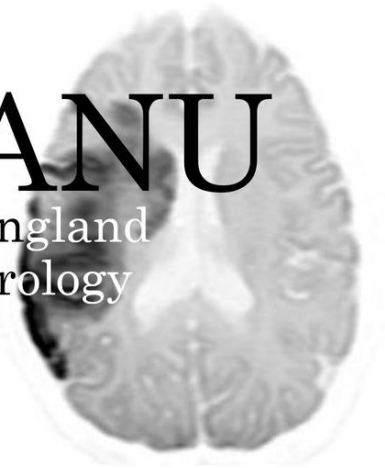

Acute Presentations of Chronic Conditions II

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NHS Foundation Trust

Virtual Ward Round

Neurological presentations

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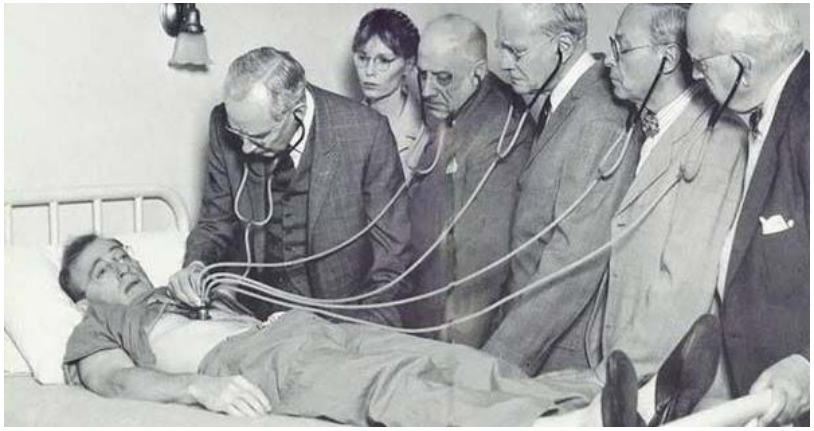

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Update

65-year-old female
Known secondary progressive MS. Walks with frame.

More unsteady over 3 weeks, falling…
No vertigo, no dysarthria.
Numb hands and feet. Weak legs
Prev on Copaxone, no other meds

Sounds like a MS relapse… I've prescribed the Methyl Pred…

And the examination…?

https://www.youtube.com/watch?v=DkrH_6VKPSE

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- CN – normal
- UL
  - normal tone,
  - weak hands,
  - brisk reflexes at triceps,
  - distal sensory loss
- LL
  - increased tone,
  - weak hip flexors,
  - brisk reflexes, plantars up,
  - altered vibration sensation to lower costal margins

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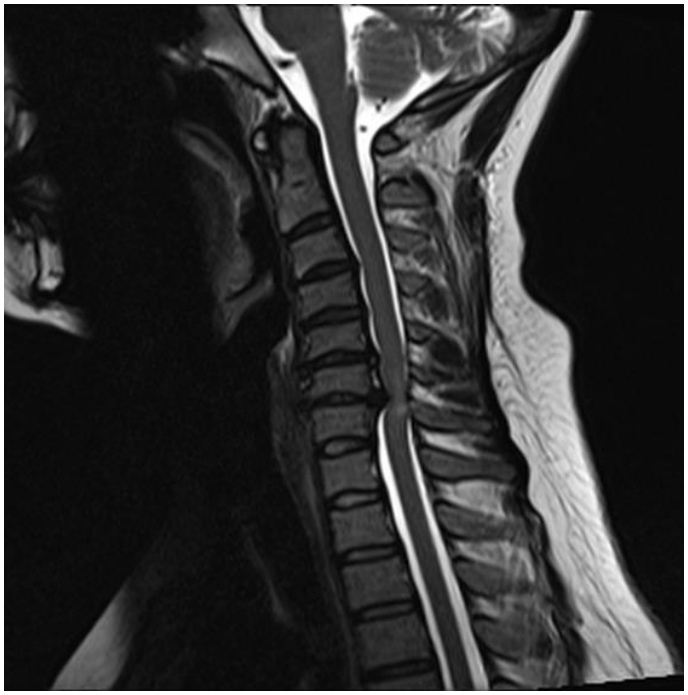
Update

- Clinical syndrome
  - Cervical Myelopathy
- Aetiology
  - ?compressive
  - ?MS – seems unlikely…
  - Needs an MRI…



When is it not a relapse?

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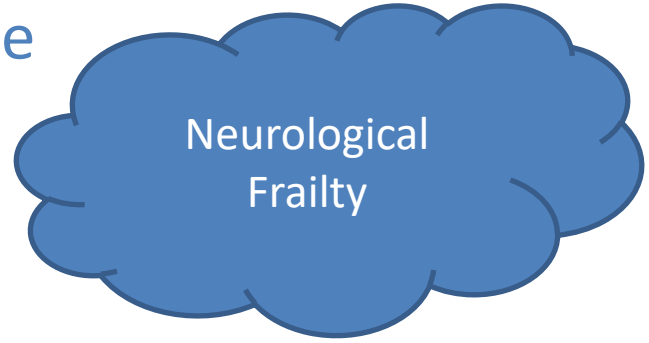
Update

Beware ‘relapses’ in SPMS

Look for causes of pseudo-relapse

- Infection
- Constipation
- Other intercurrent illness



Look for alternative causes of neurological syndrome

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Update

25-year-old female
Known relapsing remitting MS

Increasingly unsteady over last 4 days
Started after a party
Numb hands and feet, weak legs

On Copaxone, no other meds

Sounds like a MS relapse… I've prescribed the Methyl Pred…

And the examination…?

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Update

- CN normal
- UL – normal tone and power, reduced reflexes, reduced vibration sensation in hands
- LL – normal tone, power grade 4. Brisk knee jerks, absent ankle jerks, upgoing plantars. Reduced vibration to above the waist
- Ataxic gait, Romberg +ve

MJ1 Poll: what would you do next?

A. Crack on with the Methyl Pred
B. Refer to MS nurse/neurology to change Copaxone
C. MRI brain
D. MRI spine
E. Other

The MRI is quite unusual…

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Update

- CN normal
- UL – normal tone and power, reduced reflexes, reduced vibration sensation in hands
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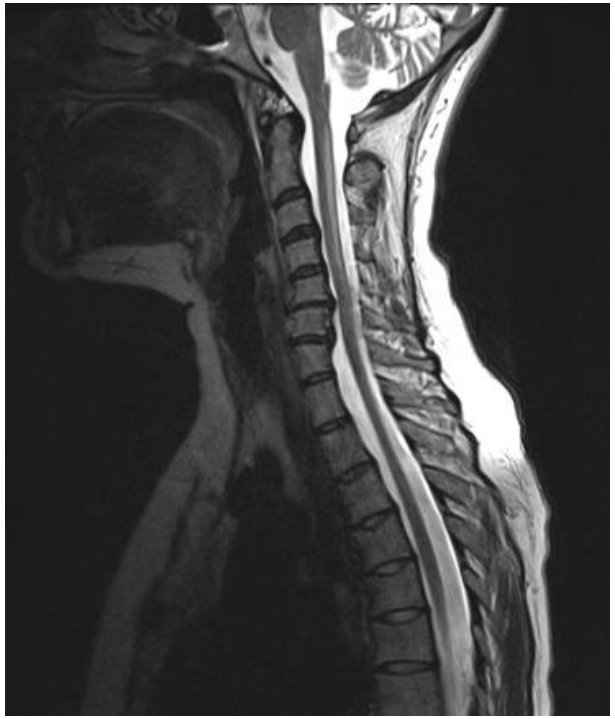
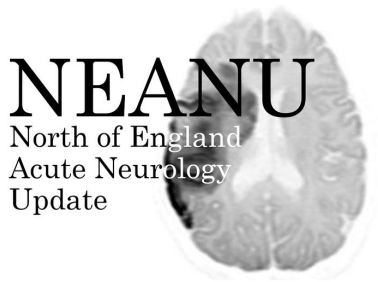
- Ataxic gait, Romberg +ve



Relapses in RRMS



Red flags for non-relapses in RRMS

Clinico-pathologic mismatch

Eg LMN signs

Brief, transient neurological symptoms

Intercurrent illness

When it is a relapse:

Contact Neurology/MS nurse team (DMT implications)

Methyl Pred if disabling (can be given orally)

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Update

23 year old female, rapidly progressive unsteadiness and falls over 3 days

Now can't walk unaided
Bladder trouble

Had optic neuritis last year… poor residual vision in left eye

Myelopathic signs on exam and a pale L disc…

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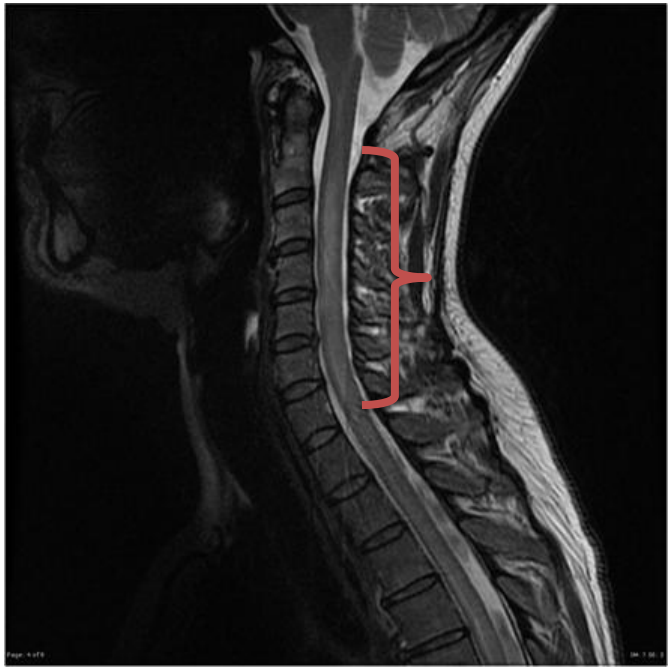
Looks like a second attack – so clinically MS now…

Myelitis on the MRI

Plan: Oral Methyl Pred, home, OP neurology



What's wrong with this picture?

Transverse Myelitis

Multiple Sclerosis

- Short segment transverse myelitis
- Often good recovery
- Short course Methyl Pred

NMO spectrum disorder

- Longitudinally extensive transverse myeltis

Other clues:

Atypical Optic Neuritis

Unusually Severe
Refractory to treatment

NMO/ Aquaporin4 Ab +ve

Prev seen in clinic for hoarseness.
Admitted after found to be hypoxic on home pulse oximetry.
SOBOE and lying flat 3/12.
No cough/haemoptysis.
Wt loss 5 kg in 6/12.

Ex HGV driver, prev asbestos exposure, ex smoker

Now feels tired, weak and breathless

PFTs:
FEV1 1.19 (42%)
FVC 1.33 (36%)

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CT thorax:
Pleural Plaques only

ABG:
pH 7.4, pCO2 9.5, PO2 6.8.
HCO3 45.2, BE 16.5

MJ2 Poll: What's causing the SOB?

A. COVID-19
B. Motor Neurone Disease
C. Muscular dystrophy
D. Myasthenia Gravis
E. Occupational lung disease

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Update

- CN

Weak tongue, no fascics/wasting, +ve jaw jerk

- UL + LL

Widespread fascics. Wasting in quads. Tone normal, generally weak, reflexes normal. Sensation normal.

And the examination…?

Neurology and Ventilatory Failure

- MND
  - NIV and QoL
- Myasthenia Gravis
  - Completely treatable, but may present in crisis
- Immune mediated muscle disease
  - Rare
- Genetic neuromuscular disease
  - Rare, transition risk

History + Examination = Syndrome