Examination of a Patient with Demyelinating Disease

Student Question
Can you please tell me the contents of a brief neurological examination of a patient with multiple sclerosis - the key findings, as you would like to do in an OSCE examination.

Response
You'd want to look for evidence in the parts of the nervous system most often affected by MS - ie
- Optic neuropathy
- Internuclear ophthalmoplegia
- Upper motor neurone signs, esp in lower limbs
- Sensory loss- often patchy
- Cerebellar signs

Initial Inspection
Note walking aids, wheelchair, catheters, PEG tubes etc
Ask the patient to speak- checking for cerebellar speech (see programme on this)

Eyes
Perform fundoscopy looking for evidence of pale discs. If found I'd offer to check visual fields looking for a central scotoma and checking for loss of red colour vision (using a red hat pin). The swinging torch test would be a bonus- looking for evidence of an afferent defect (see notes and video on this)

Then check external ocular movements, looking for nystagmus and any evidence of problems with adduction of either eye on conjugate gaze (see video about internuclear ophthalmoplegia).

Motor system of legs
Then if this is a brief neurological examination, I'd ask to see the patient walk and if normal gait, I'd just check the plantar responses. If these were flexor, I'd leave the lower limb motor system at that. If there is more time, I’d do full motor evaluation: tone power reflexes and plantars in the lower limb. There's also a video of this on the website, demonstrating signs in a patient with MS.

Cerebellar signs
Then I'd examine for cerebellar signs, probably starting in the upper limb.

Sensation
I would be hoping that time would run out before having to do a sensory check, as this is often patchy, subjective and time consuming! If you are given clues from the history about sensory loss, then a brief check of sensation might be required.

Also important to ask to see the patient walk and to check function- ability to write, do up buttons etc.