Cerebellar Examination

1. General Inspection as above

2. Posture:

- Whilst the child is sitting, get him/her to lift his feet from the ground with arms crossed (Truncal ataxia)
 - Get the child to stand up and maintain position with feet together and eyes opened. And then with eyes closed (Rhomberg's test). If the child is ataxic and unsteady with eyes closed (Rhomberg's test positive), then the problem is likely to be sensory ataxia, rather than cerebellar ataxia.

3. Gait

- Get patient to walk (broad-based ataxic gait, falls towards the side of the lesion) , then ask him to STOP, turn back and do
- Heel to toe walk

4. Face

- Eyes: H test for extraocular muscles and pause at lateral gaze horizontal nystagmus, towards the side of the lesion (lateral cerebellar lesion)
- Speech: Ask the child question / ask him to read/ for older child, ask him to say baby hippotamus, West register street/ british constitution (staccato speech/ scanning dysarthria)

5. Upper limbs

- -Pronator drift ask patient to hold his arms out with his palm facing upwards and his eyes closed : Pronator drift weakness ; Upward drift cerebellar lesion
- -Rebound test- whilst patients arms are held out, push his wrist down quickly (Holmes' rebound phenomenon over correction of passive displacement of limb)
- -Hypotonia
- Rapid palm test (Dysdiadoschokinesia)
- -Finger-nose test (Dysmetria)

6. Lower limbs

- Hypotonia
- Reflex: pendular reflex, best seen when patients limb left hanging in the air
- Heel-shin test

To complete the examination, I would

- -check the fundi for papilloedema (space occupying lesion)
- perform a full neurological examination

Causes of cerebellar lesions:

1. Stroke

- 2. Trauma
- 3. Alcohol
- 4. Drugs- phenytoin / lead poisoning
- 5. Multiple sclerosis
- 6. Tumour (carebellopontine angle tumour)
- 7. Friedreich's ataxia
- 8. Arnold-Chiari malformation

Author: Dr. Huey Miin Lee, Paediatric Registrar, London