Cerebellum

Cerebellar disease

Symptoms:

1. Hypotonia : because Cerebellum control reflex arc, so any loss of this control lead to Hypotonia and hyporeflexia.
2. Ataxia :in normal situation, patellar tendon reflex lead to extension of the knee, but in any Cerebellar disease there will be no coordination of movement ( رجل المريض رح تتحرك متل البندول) >> disturbances of reflex
3. So Ataxia: inaccurate movement or disturbances in any voluntary movement e.g.: when the patient walks, he teeters (يتمايل) ; during walking there will be tendency to fall at the side which have the injury ; e.g. there is a test for cerebellar patient , he should put his index on the tip of his nose , this movement in the damage side lead to intentional tremor .

The involuntary movement will happen especially when he want to touch his nose (tip of the nose ) >> his movement increase.

1. dysmitria : the patient isn’t able to calculate distance to produce a fine movement . e.g. : when patient want to catch a cup there will be an involuntary movement ( this tremor increase when he near the cup but when he approach it he will be away from the cup عندما يقترب يد المريض من الكوب تنزاح عن الكوب ما بيقدر يمسكه بالاخر !
2. Dysdiadochokinesia: difficulty production of opposing movement ( pronator- supination .. there will be problem )
3. Postural changes : cerebellar patient stand in “wide based gait” which mean that his two leg is away from each other in order to balance himself , for e.g. : if there is disease in RT cerebellar, there will be dropping in RT shoulder and the head shifted to left side ;Because there is no coordinating between muscle in RT and left side in body which mean that will be weakness in muscle in RT side of in body , when patient walk >> tendency to fall to RT side ( the damage one )
4. Nystagmus : oscillation of eye because no coordination for eye ball ,
5. Disorder for speech : also no coordination muscle of speech and oral cavity
6. If injury happen at vermix causes truncal Ataxia (المريض يسقط اما للامام او للخلف وليس للشمال )

If injury extend to the lesion there will be limb Ataxia and so on ; may it reach **flocculonodular lobe**  which response of balance which make communication of vestibular nuclei and MLF any injury lead to Nystagmus .

\*\* Chronic alcohol lead to cerebellar disease difficult to control the posture and the gate.

\*\* No paralysis >> just weakness

\*\* Horizontal fissure >> divide cerebrum to superior in inferior surface

\*\* U should notice: **flocculonodular**

**\*\* tonsil of medulla :** if herniation happen there will be compression in   
 foramina magnum which effect respiratory and cardiac center.

\*\* Arborvitae >> gray matter >> outer most

While mater >> innermost.

\*\* Deep cerebellar nucleus and dentate nucleus Embedded in while matter

\*\* input from lateral hemisphere

\*\* U should know to where it project ??

Typed by my lovely sister 7annonah

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