Approach to "Weakness": Upper Motor Neuron disease

Signs of Upper Motor Neuron (UMN) Disease

(Generally due to loss of UMN inhibition on LMN activity)

→ Hyper-reflexia (4+), may see clonus (takes days to develop after UMN injury)

→Spasticity (↑ed muscle tone when moved really fast)

- → Positive (upgoing) Babinski test
- → (muscle bulk remains normal)

Paraplegia

(weakness/paralysis from legs down)

→Thoracolumbar spinal cord dx

(trauma, tumor, disc herniation, multiple sclerosis)

Cortex disease

(weakness will be more focal; higher cognitive difficulties: aphasia, neglect; partial somato-sensory loss, visual field changes)

→ Large vessel stroke

- → Trauma
- **→**Tumor
- →Abscess

Hemiplegia

(Weakness/paralysis on one side of the body)

Sub-Cortex disease

(pure hemiplegia: total paralysis of one side of body; ataxic hemiparesis: unilateral weakness with gait instability)

Quadriplegia

(Weakness/paralysis in all 4 limbs)

→ Cervical spinal cord dx (trauma, tumor)

Brainstem disease

Cranial nerves affected: diplopia (3,4,6), dysarthria & dysphagia (9, 10, 12), vertigo (8), crossed/alternating hemisensory loss.

→Large vessel stroke

→ Lacunar (small-vessel)

stroke

- →Trauma
- **→**Tumor
- →Abscess
- → Multiple sclerosis (MS)