



Images In Medicine

Upper and (old) Lower Facial (VII) Nerve Palsies On Opposite Sides

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An 86 year-old woman suffered a left internal capsule stroke one month before these photos. She had right facial weakness along with mild right arm and leg weakness as residua. Six years earlier she had had a left sided Bell's palsy with an excellent recovery. Photo A shows a mildly increased right palpebral fissure and mildly reduced right naso-labial fold. These findings indicate mild facial weakness on the right. In photo B, when smiling, one can see an increase in the naso-labial fold asymmetry, and contraction of the left orbicularis muscles. In photo C her left peri-orbital muscles contract as she puckers her lips, indicating synkinesis, a very common phenomenon in people who recover from a Bell's palsy.

Upper facial weakness can usually be distinguished from a lower motor weakness by having the patient contract the frontalis muscle (raising the eyebrows). In **upper motor neuron (UMN)** lesions the frontalis contracts. It does not with **lower motor neuron (LMN)** lesions. The vast majority of Bell's palsy cases recover very nicely but often develop synkinesis, a syndrome in which the VII nerve regenerates but one branch innervates more than one muscle, usually the mouth and eye so that smiling or lip puckering causes the eye to close and closing the eyes causes a unilateral smile. These photos show the difference between an UMN and old, or "healed" LMN VII nerve weakness.

The patient provided written informed consent to allow her photos to appear in this journal.

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