

Case 5: LEFT SIDED WEAKNESS AND "ALIEN HAND" SYNDROME
(Slide CC14-8)

CC: The patient is a 67 year old woman admitted for **sudden left sided weakness.**

HPI/PMH: The patient's past history is notable for hypertension, peripheral vascular disease, and smoking one pack per day for 40 years. On the morning of admission she tried to rise from the table after finishing breakfast and could not support her weight, falling against the door scraping her left side. She reached for the telephone and called an ambulance.

Physical Examination: Well developed woman in moderate distress.
T=97; P=92; BP=150/90; R=20; Lungs-clear, Cor-nl., Abd-nl., Ext-no edema.
Slight superficial abrasion noted on left arm.

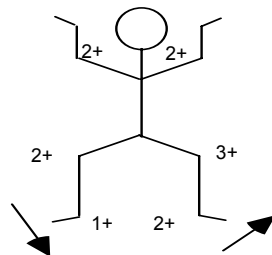
Neuro:

Mental Status - A&Ox3. Normal speech, calculation, and memory.

Cranial Nerves - normal except for **mild flattening of left nasolabial fold.**

Motor - RUE and RLE normal 5/5 strength. **LUE and LLE 2-3/5 strength.**

Reflexes -



Coordination/Gait - Not tested.

Sensation - **decreased sensation LLE all modalities.**

Clinical Course:

The patient was admitted for a presumed right-sided CVA. Two days after admission the patient had **complete loss of strength (0/5) in the LUE and LLE** with continued **mild flattening of the left nasolabial fold.**

One month later the patient had recovery of **3/5 strength in the LUE** but continued **0/5 strength in the LLE.** Interestingly, the patient felt that her **left arm was "out of control."** Her left arm would occasionally grab onto things without her being aware of it and she then had to use her right arm to release it's grasp. She could not localize her left arm in space. However, when distracted, she could use both hands to perform certain automatic overlearned behaviors such as folding a piece of paper in half.

Questions:

1. Left lower extremity weakness and sensory loss could be produced by a CVA of which cerebral artery supplying which brain areas?
2. If our patient had a CVA of this artery, how might we explain the weakness seen in the LUE and left face?
3. What brain area might also be affected by a CVA of this artery which could explain the "alien hand" syndrome seen in our patient?