Teaching Video NeuroImage: The Digiti Quinti Sign as the Sole Objective Sign of Mild Hemiparesis

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An 86-year-old man with hypertension, hyperlipidemia, type II diabetes, and atrial fibrillation (anticoagulated with low-dose rivaroxaban) presented with a 24-hour weakness of his left limbs, with difficulty for performing daily tasks.

When the patient was asked to extend the arms and fingers forward with palms facing down, the left fifth finger was observed to assume abduction, separating from the fourth finger (Video 1). This is the *digiti quinti* sign, described by Milton Alter in 1973 as a sign of mild hemiparesis, due to the smaller cortical representation of the fifth finger compared with the other fingers\(^1\). The remaining neurological examination and brain CT scan were normal. This finding did not suggest a peripheral palmar interossei weakness as ulnar neuropathy commonly presents with sensory loss in the fifth finger and ulnar half of the fourth finger, along with mild weakness in other ulnar-innervated muscles.

Therefore, the *digiti quinti* sign was the only objective sign leading to the diagnosis of ischemic stroke, and rivaroxaban was adjusted to full-dose. An outpatient brain MRI confirmed a subacute ischemic lesion in the right internal capsule. Without a comprehensive neurologic exam revealing this subtle sign of weakness, the patient may have been misdiagnosed and improperly managed.

Video 1. When arms and fingers are extended forward, the abduction of the left fifth finger (*digiti quinti* sign), while the right fifth finger remains in adduction, is a sign of mild left hemiparesis.

References:

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