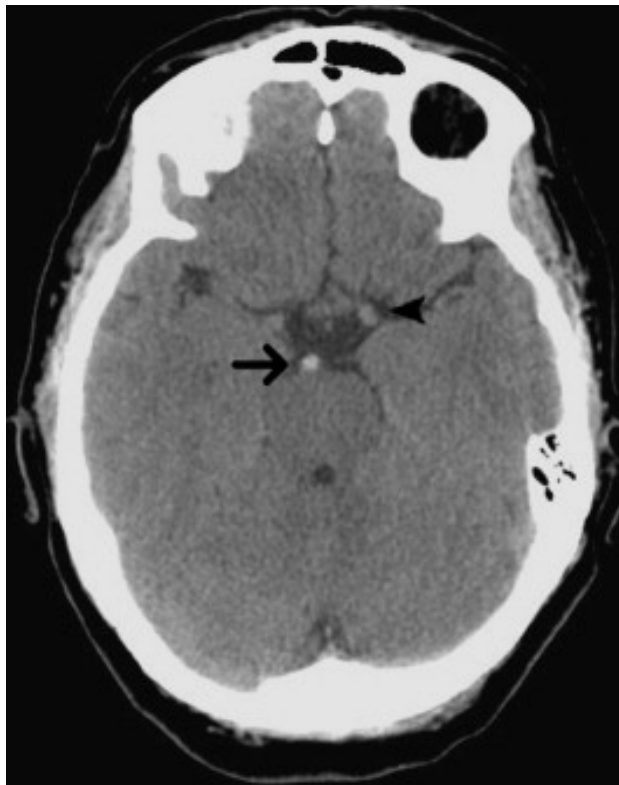


## ED QUICK QUIZ

### WHAT IS THE DIAGNOSIS?

#### BACKGROUND

A 62-year-old lady presents as a standby with a history of left facial droop onset 1 hour previously. She has previously sustained a CVA 3 years ago from which she was left with a mild (4+/5) left arm weakness. The facial droop appears to resolve fully during your initial assessment. In the preceding 2 weeks she has suffered an episodes of speech disturbance and separately of right leg weakness, all of which again resolved. Given the circumstances it is felt prudent to discuss the patient with Stoke on call rather than refer to a TIA clinic. During this discussion the patient appears to have a self-terminating seizure, and subsequently has a right-sided weakness. A CT Scan is carried out.



#### QUESTIONS

1. What might the diagnosis be?
2. What modification of imaging is often required?
3. What features merited the initial discussion with the Stroke physicians?
4. What should have been assessed at the initial assessment? (often omitted in ?neurological presentations!)

## ANSWER & DISCUSSION

### 1. Diagnosis

**Vertebrobasilar CVA.** A stuttering and progressive course of symptoms or transient ischemic attacks in the vertebrobasilar territory is seen. The most common heralding symptoms include the following:

- **Motor deficits** such as hemiparesis or tetraparesis and facial paresis -  $\frac{1}{2}$  of cases
- **Dysarthria** and **speech** impairment -  $\frac{1}{3}$  to  $\frac{2}{3}$  of cases
- **Vertigo, nausea, and vomiting** -  $\frac{1}{2}$  to  $\frac{3}{4}$  of cases
- **Headache** - 40% of cases
- **Visual** disturbances -  $\frac{1}{4}$  of cases
- **Altered consciousness** -  $\frac{1}{4}$  of cases

Based on the temporal profile of the symptoms, basilar artery thrombosis may manifest in at least these 3 different ways, as follows:

- a) Gradual or stuttering course of a combination of the symptoms described above that ends with disabling motor and bulbar symptoms, impaired consciousness, or both.
  - b) Prodromal symptoms that may include loss of vision, diplopia, dysarthria, vertigo, hemiparesis, paresthesias, imbalance, and convulsive-like movements (these symptoms may precede monophasic basilar artery thrombosis by several days or even by months)
  - c) Sudden onset of severe motor and bulbar symptoms with impaired consciousness
- As many as 50% of patients experience transient ischemic attacks or a waxing and waning course for **several days to weeks prior** to the occlusion.
  - In a few cases, convulsive-like movements along with hemiparesis (**herald hemiparesis**) may be the only diagnostic clues.

### 2. Imaging Modification

**Contrast CT.** Occasionally the thrombosis is seen on a non-contrast CT, as in this case, however a contrast CT may be required. Discuss this with radiology and stroke to save 2 journeys to the scanner!

### 3. Features

Her **ABCD2** score is at least 4 in the absence of knowing her BP or if she is diabetic. Her **Symptom duration > 1 hour** and especially her **Recurrent symptoms** should raise alarm bells [see Stoke Guideline on website/Dropbox].

### 4. Initial Assessment

**Gait** - In very rare cases, patients may present with isolated vertigo or “dizziness”, with no other neurological symptoms. The presence of vascular risk factors, and the inability to walk may suggest the diagnosis of vertebrobasilar insufficiency. [Dizziness and Vertigo guideline]