04/20/21 Neuro Morning Report with @CPSolvers

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CC: Impairment of speech

HPI: 48F p/w inability to speak, suddenly started 1 day ago. She can comprehend questions, but is unable to produce any sound, just moving her head to say "yes" or "no"

Her sister reports that she has been experiencing a new headache that started 2 weeks ago that prompted her to visit the ED 3x in the last 2 weeks where she was Tx w/ muscle relaxants and analgesics w/ no improvement. The day prior to admission, she had a sudden worsening of headache, stopped talking. No nausea, vomiting, photophobia, phonobia.

She has never had a headache previously.
No fever,wt loss, or previous infection

PMH:
MDD

Meds:
OCP

Fam Hx:
Sister- PE and DVT
Brother - hemorrhagic stroke
Mother - history of mesenteric thrombosis

Soc Hx:
Nothing significant

Health-Related Behaviors:
Smokes - stopped 10 years ago
No alcohol use

Allergies:
No known allergies

Vitals: **T**: 36.5 **HR**: 106 **BP**: 125/60 **RR**: 14 **SpO_2**: 96

Exam:
Systemic - well appearing
Neuro No papilledema
- **Mental Status:** Oriented
- **Cranial Nerves:** Intact
- **Motor:** No FND
- **Reflexes:** No deficit
- **Sensory:** No deficit
- **Cerebellar:** No deficit
- **Other:** Unable to read, repeat, speak, able to comprehend, able to write first name only, no meningeal signs

Notable Labs & Imaging:
Hematology: Nothing significant
Chemistry: Nothing significant
HIV and syphilis serologies negative
Imaging:
CT brain: hypodensity L fronto -parietal region a/w a small area of hyperdensity (bleeding)
CT venous contrast: Extensive thrombosis jugular vein, sigmoid sinus, transverse sinus in the L
CT arterious contrast: normal
MRI: extensive acute thrombosis of IVJ, sigmoid sinus, L transversus sinus
Antithrombin, protein C and S, factor V of Leiden, homocysteinemia, lupus anticoagulant, anticardiolipin, and anti-beta2 glycoprotein-I: normal

Dx: Cerebral venous sinus thrombosis 2 to intracranial hemorrhage d/t family history + OCP

Problem Representation: Middle aged female Tx OCP w/ family history of thromboembolic dz p/w sudden worsening of subacute headache and inability to speak and repeat w/ intact comprehension

Teaching Points (Rafa): #EndNeurophobia

- **IMPAIRED SPEECH**
  Language cognitive dysfunction (aphasia) / language motor component dysfunction (dysarthria)
  Time course: Sudden/Acute (stroke)/Chronic (neurodegenerative disorder - AD)
  Aphasia - dominant hemisphere - mostly of the L if R-handed
  Wernicke aphasia (sensory / fluent aphasia) - superior temporal gyrus
  Receptive aphasia - well-articulated, nonsensical speech paired with a lack of language comprehension - individuals are not aware!
  Broca aphasia (motor / nonfluent aphasia - inferior frontal gyrus
  Patients communicate meaningfully, but their speech is slow and may be punctuated by pauses in between words as the patient attempts to verbalize each one
  Individuals are often frustrated: aware of their expressive language dysfunction
  Dysarthria : problem with speech motor component
  Many areas above spinal cord could be affected - eg, CN, cerebellum
- **HYPERCOAGULABLE STATE**
  Predisposition to arterial / venous thrombosis
  Homocystinuria, protein C/S deficiency, AT III deficiency, antiphospholipid syndrome, prothrombin gene deficiency
  Pregnancy, contraceptive use, neoplasia, nephrotic syndrome
- **CAVERNOUS SINUS**
  Collection or venous sinuses on either side of the pituitary
  CN III, IV, V1,V2, VI
  Etiologies: carotid-cavernous fistula, cavernous sinus thrombosis, pituitary tumor mass effect
- **HEADACHE**
  Primary (cluster / migraine / tension) or secondary causes (2 to thrombosis)