"One life, so many dreams" Case Presenter: Melody Lee Yu (@MelodyOblongata) Case Discussants: Rabih (@Rabihmgeha) and Jas (@JasBajwa18)

CC: 56-year-old right-handed male coming in due to slowing of speech and word finding difficulties.
HPI: 3 days prior, patients wife noticed slowing of speech and word finding difficulties. Intermittent left periorbital 9/10 throbbing pain temporarily relieved by acetaminophen. No headache, $n / v$, numbness, weakness, facial asymmetry, slurring of speech. Progression of word finding difficulties. Short phrases, with intermittent eye pain. Day prior, consulted ophto who advice to consult neurology which prompted to consult to ER.

| PMH: <br> Controlled <br> HTN | Fam Hx: <br> II DM maternal side |
| :--- | :--- |
|  | Soc Hx: <br> Occasional alcohol <br> Beverage drinker. |
| Losartan <br> Metoprolol | Smoker 12 pack years |
|  | Health-Related <br> Behaviors: <br> None |

None

## Allergies

None

## Vitals: T: 36.9 HR:60 BP:160/80 RR: 20 SpO298 <br> Exam:

Gen: HEENT: CV:
Neuro: awake, follows commands, good concentration, Non-fluent word finding difficulties, repetition preserved, impaired recent and remote memory, dysgraphia, acalculia, finger agnosia, left right confusion. no graphesthesia, ideational and ideomotor apraxia, no neglect, Right homonymous inferior quadrantanopia, no fundoscopic exam done. II-III pupils 3 mm EBRTL, no ptosis, midline gaze, + direct and consensual light reflex, no RAPD
Minimal pronator drift, right upper extremity

## Notable Labs \& Imaging:

## Hematology:

WBC: 9,000 Hgb:14.9 Hto 44 Plt: 208 TC 170 LDL 89 HDL 49.5 TG 209 Fasting Glucose 106.2 HbA1C 5.8 EKG: NSR

## Imaging:

Plain cranial MRI with MRA:
Multiple acute left middle cerebral artery territory ischemic infarcts with mild hemorrhagic conversion in the left temporo-occipital and middle frontal gyrus infarcts

- $\quad$ Significant stenosis in distal M1 to proximal M2 of the left middle cerebral artery.
- Mild chronic bilateral frontoparietal white matter microvascular white matter changes
- Negative for mass lesion

TTE: normal
Carotid doppler scan: Normal antegrade flow for both vertebral arteries.
Final dx: Acute CVD infarct left MCA territory LVO with hemorrhagic conversion probably cardioembolic in setting of steno-occlusive disease

Problem Representation: Patient with stroke of cardioembolic origin who was started on single antiplatelet due to hemorrhagic conversion, with improved Gerstmann syndrome.on the course of hospital stay

## Teaching Points (Debora):

CC: Slowing speech $\rightarrow$ Stroke? Stroke code, CT scan.
What mimics strokes? hypoglycemia, medication intoxication, alcohol intoxication. More data can change that.
What makes unlikely to be stroke? TEMPO
CC $\times$ HPI more details means that the patient had time to give you that information. It can be subacute or chronic.
Aphasia vs. dysarthria: Aphasia comes to from the SNC WHAT TO SAY. Dysarthria HOW TO SAY can be muscular disease, brainstem.
Periorbital pain: Ddx: Vasculitis, infection, migraine.
Headache:
Primary neurologic symptoms migraine. It's not a primary in this case.
It is secondary $\rightarrow$ space occupation (e.g. mass), vascular diseases (e.g. venous thrombosis) and inflammatory diseases.
Acute: Sugar, stroke, seizure vs Subacute: space occupation (e.g. blood, abscess, cancer) demyelinating disease (e.g. MS, ADEM; usually no cortical involvement) and venous sinus thrombosis
Ddx: Mass, venous thrombosis and demyelination $\rightarrow$ order an MRI.
Right homonymous inferior quadrantanopia: Left superior cortical problem, left top of the brain.
Cortical disease process $\rightarrow$ left parietal lobe, left frontal lobe, temporal lobe. Management: CT, MRI, cancer screening, risk factors for cancer. In this situation $\rightarrow$ check with full attention on the labs.
Multiple acute infarcts: Can be an embolic phenomenon from the heart. Check if is more embolic or more thrombotic.
Stenosis: vasculitis, tumor. Order an autoimmune serology.
Blood vessel issues $\rightarrow \mathbf{3}$ Ps: PUMP (e.g. tumor, atrial fibrillation) PIPE (e.g. atherosclerosis) and PLASMA (e.g. hypercoagulation).

