



12/11/25 Morning Report with @CPSolvers

"One life, so many dreams" Case Presenter: Hee Mun Case Discussants: Rabih (@rabihmgeha) & Sarah B (@sarahkblaine)

<https://clinicalproblemsolving.com/present-a-case/>



Scribing (Eyron)

CC: 41/M with L facial palsy, L arm-predominant hemiparesis, L hemineglect, and R-eye blurriness.

HPI:

Sudden-onset deficits occurred 6 hours ago. Right-eye blurriness began several days earlier. The patient reports 3 months of joint pain (RF positive, CCP negative) with no improvement on NSAIDs or steroids, along with headache, myalgias, mild fevers, chills, night sweats, malaise, and decreased appetite.

ROS:

Denies jaw pain, scalp tenderness, palpitations, SOB, chest pain, recent dental procedure, dysuria, URI symptoms or IV drug use

PMH:

None
Cellulitis
Meds:
None

Fam Hx:

NC
Social Hx:
Social drinker
1 ppd smoker x 20 years
Lives in US, no recent travel
(+) IV drug use - per collateral from family
Allergies: NKA

Vitals: T: 37.5 HR: 95 BP: 150/90 RR: 20 Sat: 96%

Exam: HEENT: decreased R VA, PERRL, EOMI, no JVD or LAD

CV: holosystolic blowing murmur at apex

Neuro: decreased R visual field; L central facial palsy (forehead sparing), L arm-dominant hemiparesis (3/5) with hemisensory loss, L neglect, hyperreflexia with L Babinski (NIHSS 15)

Extremities/skin: Mild joint tenderness without swelling or warmth; ROM preserved. (+) Tiny, painless purple spots on feet

Notable Labs & Imaging:

Hematology:

WBC: 11k Hgb: 8.6 Plt: 167k MCV: 84

Chemistry:

Cr: 1.23 BUN: 32 ESR/CRP: elev
UA hematuria, proteinuria mild, BNP wnl
RF positive, ANA 1:80, negative for ANCA, CCP, dsDNA, Scl-70, and cryoglobulin
Hypercoagulability workup negative; Negative for hepatitis panel, HIV, and syphilis

Imaging:

SD-OCT of the R eye: retinal hemorrhage and a Roth spot

DWI MRI: Multifocal, small, high-signal-intensity lesions in the right frontal and parietal lobes, consistent with embolic infarcts

T2* MRI: Multiple cerebral microbleeds in both hemispheres, compatible with septic emboli-related hemorrhagic lesions.

Doppler: normal carotid flow with no stenosis or plaque. **Bubble study:** no PFO or intracardiac shunt. **ECG normal/ Holter:** sinus rhythm.

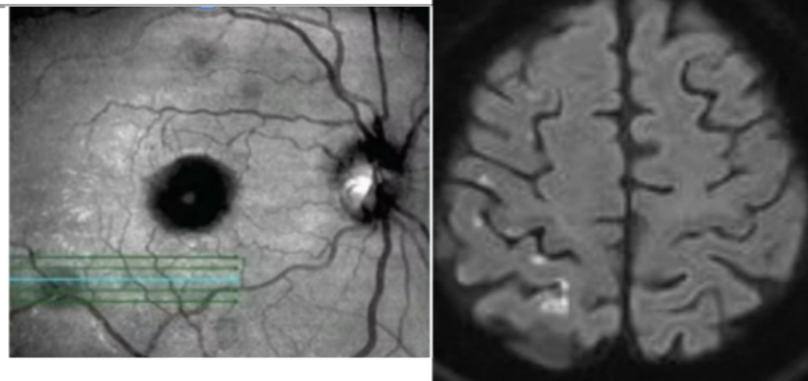
After 4 days, became drowsy w/ vomiting → CT showed new L temporoparietal ICH
CTA revealed a small enhancing lesion consistent with ruptured infectious aneurysm

TTE: normal EF, Moderate MR

TEE: Vegetation with worsening valvulopathy.

Serial Blood Cultures: Gram-positive cocci in clusters
Patient underwent emergent neurosurgical intervention + ongoing IV Vancomycin

Dx: MRSA Infective endocarditis with septic embolic strokes, retinal Roth spots



Problem Representation:

41/M with hx of IVUDU p/w with sudden onset of L sided neuro deficits in the setting of a new holosystolic murmur at the apex. MRI notable for septic-emboli related hemorrhagic lesions. TEE w/ moderate MR + new vegetation. Blood cultures grew gram positive cocci in clusters c/w MRSA.

Teaching Points (Manaswini)

- **Time course** is key in any neurological complaint
- **Where is the disease?:** Central vs Peripheral
Hemineglect (lost spatial orientation → C/L temporoparietal cortex).
If crossed signs: think brainstem
Here it is important to note that visual field is not affected. We see blurriness.
- **What is Blurriness?** - Is it Visual loss or Diplopia (double vision)? Neurological cause for blurriness is Rare: Could be Optic nerve diseases (qualitative > quantitative), or autonomic dysfunction affecting pupils

- **What is the disease?**

Systemic illness buckets: Think Intravascular Vs Extravascular
i.e Inside Blood vessels (CVS/vasculitis/ endocarditis/NBTE) VS Multifocal Patchy disease outside blood vessel (Eg: Cancer)
- Systemic disease + acute neurological syndrome = Think autoimmune/ infectious cause of CNS vasculitis OR embolic phenomenon from endocarditis/NBTE : Abrupt onset focal symptoms makes us lean towards intravascular.
- So how much of it is extravascular in this case ?
Think Vascular, autoimmune, infectious causes

- **Why the disease?** - Pre Existing (subclinical) cardiovascular vulnerability OR Vulnerability to bugs (injection drug use or dental procedure) would cause endocarditis in this age group

- **Management** of a possible endocarditis:

Vanc (MRSA) + ceftriaxone (gram -ve/HACEK/strep & MSSA too!) → Empirical treatment.
Doxycycline used in culture-negative endocarditis, but it isn't needed empirically because the organisms typically involved progress slowly.
- Continued embolic phenomenon or resistant infection → indications to surgery.
- Endocarditis can cause mycotic cerebral aneurysms, so tenecteplase is avoided because it could trigger catastrophic intracranial bleeding. (C/I to Sx here)
- If a plain thrombus is present → it blocks, but does not cause a hemorrhagic conversion. Unless it has an inherent inflammatory/infectious component eroding the blood vessels
Blockage → Bleed in kidney, brain → in a case of infective endocarditis