VCU Medical Center
Virginia Commonwealth University

Department of Internal Medicine
Clinicopathologic Conference

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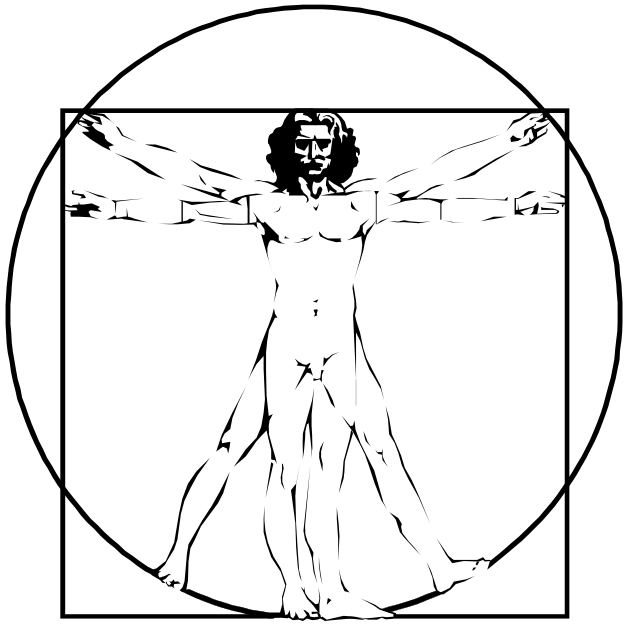
A 62 year old male with acute onset of fever and altered mental status



Case History

CC: Headache

HPI:
Mr. L is a 62 year old African American male with mild mental retardation who was brought in by primary caregiver [sister] in early July for evaluation of fever and headache. He was in his usual state of health until 24 hours ago. She found Mr. L standing in his room confused and unable to walk a straight lane and described him as “wobbly.” Temperature at home was 100.2 with diffuse sweating and was unsteady on his feet. She reports he has been increasingly lethargic therefore gave him some Tylenol and brought him to ED for assessment. At his baseline he is very active and independent in his ADLs. He goes to an adult daycare Monday-Friday and there he performs odd jobs such as trash pick-up at a local park. She is not aware of any reported illness there and no report of any insect/tick bite however was exposed to two dead birds during trash pick-up recently but sister unable to elaborate further. Upon further questioning she reports he has had a dry cough for last couple of days along with some mild diarrhea. No abdominal pain, nausea or vomiting.

Past Medical History:
Mild Mental Retardation

Past Surgical History:
None

Allergies: no known allergies

Family History:
Alzheimer’s Disease [mother]
Hypertension [mother]

Social History:
Tobacco/Alcohol/Illicit Drugs: none
Living Situation: independent in ADLs and lives with mother [age 86] and sister [POA]
Activities: goes to adult daycare and picks up trash at local parks
No pets or recent travel.

Review of Systems:
Positive: cough, lethargy, fevers, headache, confusion, decreased urine output, diarrhea for 2 days

Negative: sick contacts, chest pain, shortness of breath, abdominal pain, nausea, vomiting , vision changes, weight loss, swelling, rash, easy bruising, dysuria

Physical Exam

Vitals: Blood Pressure 145/73 Heart Rate 114
Respiratory Rate 28 Pulse Oximetry 94% on 2L NC
Temperature 102^{o}F
General: lethargic, oriented to person and place, answers simple yes/no questions, mild distress and diaphoretic; appears uncomfortable
HEENT: PERRL, EOMI. moist mucous membranes. no oral lesions. no photophobia.
Neck: no LAD or jvd,. +neck stiffness, nuchal rigidity. Pain with PROM of neck, + Kernigs
CV: tachycardic [rate ~110], normal rhythm. II/VI systolic murmur at ULSB
Chest: CTAB, no wheezes or crackles
Abdomen: soft, nt,nd. no masses or organomegaly. BS+
Neuro: follows one-step commands and moves all extremities. CN II-XII intact. No focal deficits
Extremities: 2+ DP and radial pulses. no clubbing, cyanosis or LE edema
Skin: no rashes noted

Laboratory and Imaging Studies

CBC*:*
WBC 14.0, Hgb 14.3, Plt 319
DIF: Neu 72.7% Lym 21.3% Mono 4.1% Eos 1.6% Baso 0.4%

Basic Metabolic Panel
Sodium 142 mmol/L
Potassium 3.8 mmol/L
Chloride 107 mmol/L
Carbon Dioxide 27 mmol/L
Glucose 109mg/dL
BUN 11mg/dL
Creatinine 0.88mg/dL
Calcium 9.1mg/dL

Hepatic Panel:
AST 32units/L
ALT 36 units/L
Alk Phos 59units/L
Total Bilirubin 1.2mg/dL
Conjugated Bilirubin 0.3mg/dL
Albumin 4.2/dL

Coags
INR: 1.2
PTT: 34 sec

HIV: negative

RPR: negative

CSF Studies

	Day 1	*Day 3*	*Day 4*
Opening Pressure (mmHg)	27	30	11
Protein (mg/dL)	104	137	117
Glucose (mg/dL)	72	66	63
RBC (mm3)	14	8	100
WBC (mm3)	375	190	100
Lymphocyte	51%	89%	66%
Neutrophil	38%	9%	33%
Monocytes	11%	2%	1%
Comment:	Plasmoid Lymphocytes present	Plasmoid Lymphocytes present (5% plasma cells)	Plasmoid Lymphocytes present

CSF Testing:
Cryptococcus antigen negative
VDRL negative
HSV negative

Cultures:
Urine Culture: no growth
Blood Culture: no growth
CSF Culture: no growth

CT Head without contrast:
1.The ventricles and sulci are unremarkable. The basal cisterns are intact.
2. Gray-white differentiation is maintained.
3.There is no mass effect or midline shift. There is no acute intracranial hemorrhage. Trace intracranial vascular calcifications are seen. Basal gang calcifications are seen the
4. The visualized portions of the orbits and mastoid air cells are unremarkable. Mucous retention cysts are seen in bilateral maxillary sinuses.
5. The visualized osseous structures are unremarkable. The visualized soft tissues are unremarkable

Chest X-Ray:
1. Final report
2. Probable bibasilar atelectasis. Superimposed infectious process is not excluded .
3. Low lung volumes.
4. Mild cardiomegaly

MRI of Head with and without contrast:
There is no acute intracranial hemorrhage, mass effect, or midline shift. There is no abnormal signal intensity in the brain parenchyma. The size and configurations of the ventricles and cortical sulci are within normal limits. Diffusior weighted images demonstrate no sign of acute ischemia.

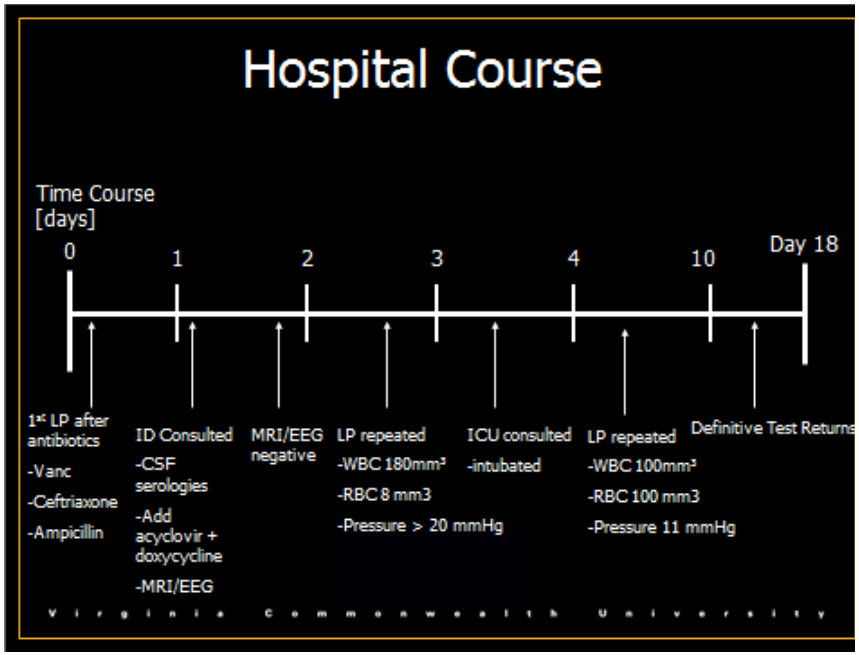
There are scattered subcortical white matter changes with T2 blade and FLAIR hyperintensities consistent with small vessel ischemic disease. These are minor in nature.

Multiple retention cysts are seen throughout the bilateral mastoid sinuses. There is a minimal degree of opacification within the right mastoid.

The major intracranial arterial flow voids are patent. There is no evidence of venous thrombosis. The paranasal sinuses are clear. The orbital structures are within normal limits.

Impression:
1. No acute intracranial abnormality. Evidence of small vessel ischemic disease

2. Retention cysts in the bilateral sinuses and minimal opacification of the right mastoid.



EEG: shows periods of normal waking patterns (borderline frequencies), cycling frequently with epochs of generalized slowing and disorganization, consistent with possible drowsiness or other encephalopathy. No evidence for seizure activity nor epileptiform activity is seen.

Hospital Course:
Mr. L was admitted for evaluation of altered mental status and fever. He was started on empiric coverage for meningitis. Lumbar puncture was obtained after antibiotics given. Patient's condition worsened and infectious disease was consulted and series of tests were sent along with adding acyclovir and doxycycline and an MRI was performed. Repeat LP still c/w meningitis and patient sent to ICU as he was no longer protecting his airway. Eventually had PEG and tracheostomy and nearly 2 weeks into hospital stay a definitive lab test return. He was discharged to a skilled nursing facility on day 18.