

Lupus and the Central Nervous System

Dr. Gloria S. Gaston, M.D., F.A.C.R.
October 2013

How can SLE affect the Central Nervous System?



SLE and the CNS system: Overview

- ▶ Neurologic manifestations of SLE are common
 - 80% of CNS vasculitis takes place in the first 5 years of disease
 - Can range from mild to severe
 - Can affect all portions of the nervous system, including the CNS
 - Are difficult to diagnose due to:
 - Medication side effects
 - Other medical conditions
 - How someone reacts to chronic illness

Cranial Neuropathy, Peripheral Neuropathy

- ▶ Cranial Neuropathy is damage to the nerves in the brain
 - Happens in 10–15% of patients
- ▶ Strokes (Cerebrovascular accidents)
 - Reported in 15% of patients
- ▶ Seizures
 - Reported in 10–20% of patients

Cognitive Impairment



Cognitive Impairment

- ▶ Believed to be very common, though there are few measurements which can document it.
 - Confusion
 - Difficulty articulating thoughts
 - Trouble remembering dates and names
 - Colloquially called “Lupus Fog”

Headaches

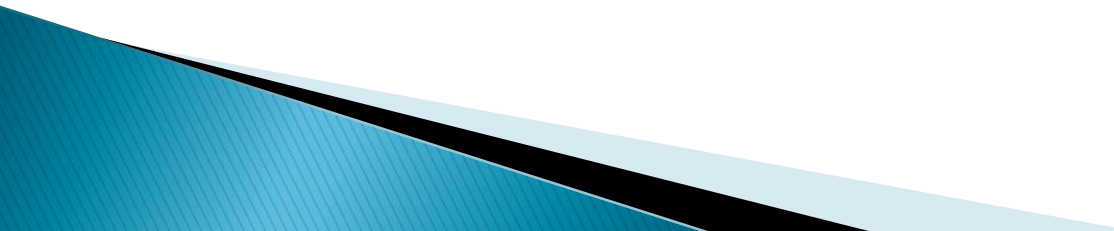
- ▶ Caused by constricted blood vessels
- ▶ May also come from:
 - Medication
 - Hypertension
 - Infection
 - Vasculitis
 - Cerebral bleed



Seizures

- ▶ May result from:
 - Inflammation
 - Medication
 - Fevers
 - Scar tissue on the brain

Altered Consciousness

- ▶ Stupor
 - ▶ Extreme sleepiness
 - ▶ Coma
 - ▶ Usually a consequence of active inflammation, medication interaction / side effect, or infection
- 

Paralysis

- ▶ Guillain–Barre Syndrome
- ▶ Transverse Myelitis
- ▶ Myasthenia Gravis

American College of Rheumatology Criteria (ACR)

▶ Old (obsolete) criteria:

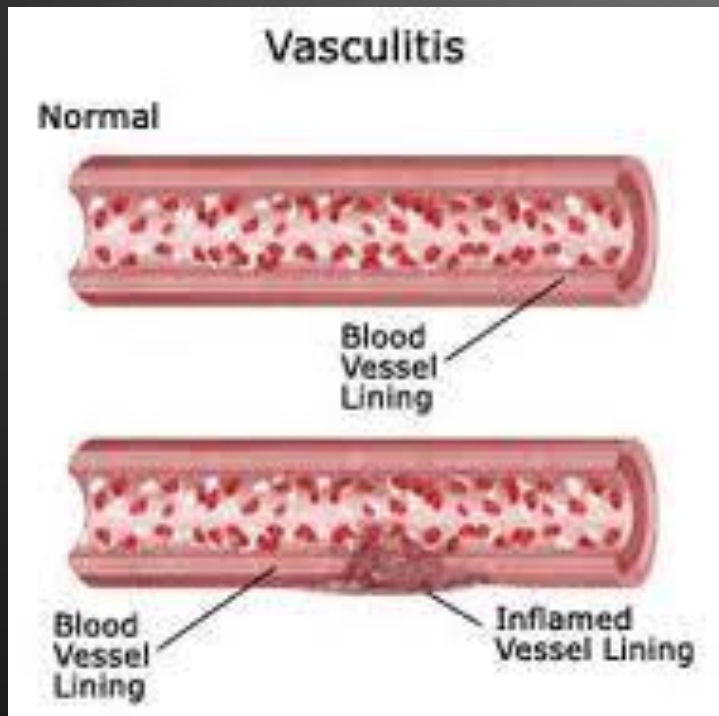
- Seizures
- Psychosis

▶ New (ACR current) criteria:

▶ Include 19 syndromes

- Headaches
- Mood Disorders
- Cognitive Dysfunction
- Aseptic meningitis
- Seizures
- Psychosis
- Demyelinating Syndrome
- Peripheral neuropathy

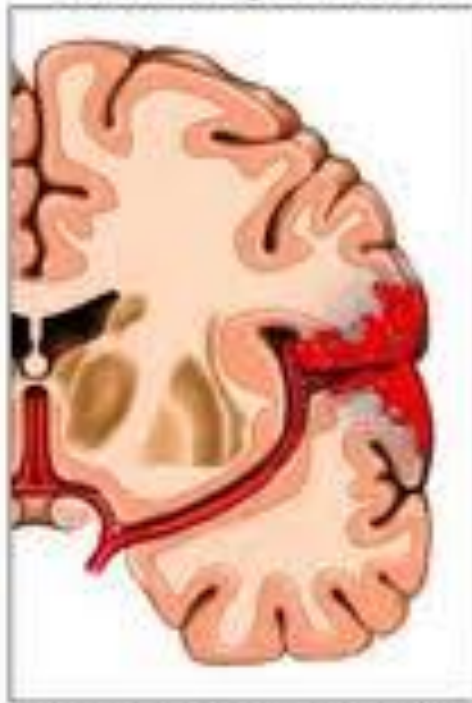
What is Vasculitis?



- ▶ Inflammation in the brain's blood vessels
- ▶ Inflamed vessel may clot, or break open causing internal bleeding (hemorrhaging)

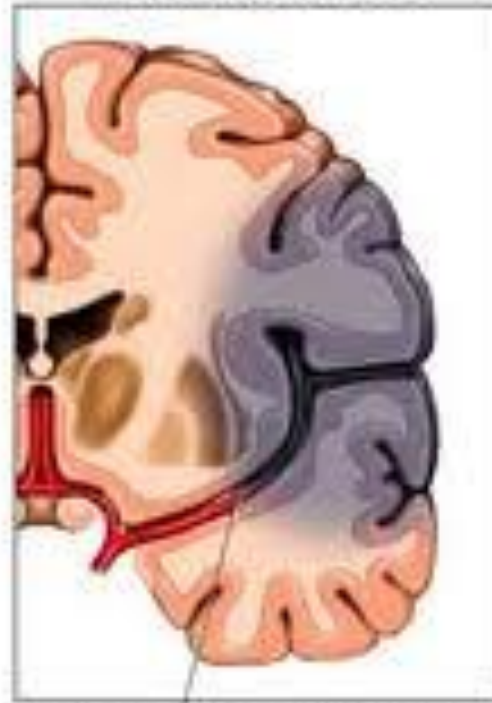
Stroke

Hemorrhagic Stroke




Hemorrhage/blood leaks into brain tissue

Ischemic Stroke



Clot stops blood supply to an area of the brain

What can I do?

- ▶ Educate family and support system to the potential manifestations of SLE on the brain.
 - ▶ Reduce potential for injury by removing potentially dangerous items in home and daily areas.
 - ▶ Remember to take prescribed medications and regular follow up with your physician or health provider!
 - ▶ Stimulate brain by staying active and brain activities (luminosity, crosswords, Sudoku,)
 - ▶ Use technology to your advantage (digital memo, calendars, GPS)
- 

Questions?

