If you see premature stroke in a patient, it could be **FABRY DISEASE**

*Silently Progressive.*  *Increasingly Debilitating.*  *Often Life-Threatening.*

**Progressive accumulation of substrate in the vascular endothelium leads to ischemia and infarction of these vessels.**

**Fluid-attenuated inversion recovery (FLAIR)-weighted axial MRI section showing multiple white matter lesions in the cerebral hemispheres.**

**Neurologists have the opportunity to identify patients with this progressive, often life-threatening genetic disease.**

**In addition to premature stroke, patients with Fabry disease may present with:**

- Transient ischemic attacks
- Neuropathic pain ("burning" pain in the hands and feet)
- Hypohidrosis
- Heat/cold and exercise intolerance
- Hearing loss, tinnitus
- Vertigo/dizziness
- Nystagmus

**Other manifestations include:**

- Progressive and/or unexplained chronic kidney disease
- Premature cardiac disease
- Corneal and lenticular abnormalities (seen through slit lamp—generally does not affect vision)
- Angiokeratomas (reddish-purple skin lesions that do not blanch with pressure)
- Gastrointestinal problems

**While Fabry disease is rare, it may be more common within a Fabry family.**

**FABRY DISEASE**

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FABRY DISEASE PROFILE

Fabry disease is an inherited disorder that affects men, women, and children of all ethnicities. It is a multisystemic disorder that ultimately results in irreversible, potentially life-threatening disease of the kidney, heart, and brain. The disease is characterized by the progressive and unrelenting cellular accumulation of a lipid substrate called globotriaosylceramide (or GL-3). Ongoing build-up of this substance is caused by deficiency of the lysosomal enzyme alpha galactosidase A (or α-GAL), which usually metabolizes GL-3 and keeps it from accumulating. Without enough of this essential enzyme, GL-3 accumulates in the lysosomes of most cell types over the course of a lifetime, often causing debilitating symptoms in childhood and adolescence and potentially irreversible tissue damage by adulthood.

DISEASE RISK IN FAMILIES

• Unlike many other X-linked disorders, females with the defective gene are affected to varying degrees due to random X inactivation.
• Males with the disease pass the defective gene on to all of their daughters and none of their sons.
• Females have a 50% chance with each pregnancy of passing the defective gene to both their sons and daughters.
• If you identify a patient with Fabry disease, family testing should be considered.

DIAGNOSIS

• Although Fabry disease usually presents in childhood, the disease often goes unrecognized by physicians until adulthood, when the underlying pathology is advanced.
• Delayed diagnosis may be the result of disease under-recognition and/or symptoms being mistaken for those of other disorders, such as rheumatoid or juvenile arthritis, rheumatic fever, erythromelalgia, multiple sclerosis, or lupus.
• Diagnosis is confirmed in males by enzyme assay (blood test) detecting low or absent levels of alpha-galactosidase A (α-GAL), or in females through genetic testing to detect a mutation.

Early diagnosis and intervention are key.
Neurologists can play a role.