

The Case of Cortical/Cerebral Visual Impairment (CVI)

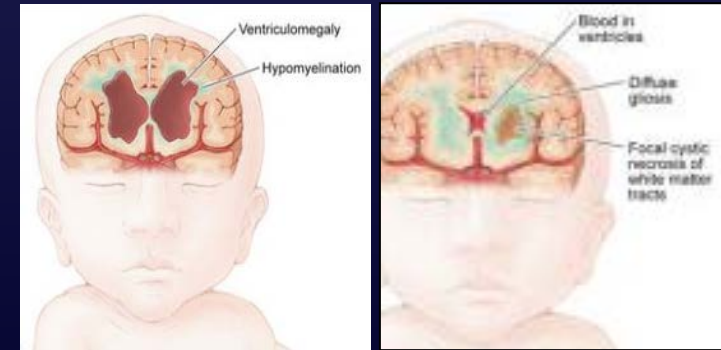
(Preterm) Periventricular Leukomalacia

Major causes of CVI:

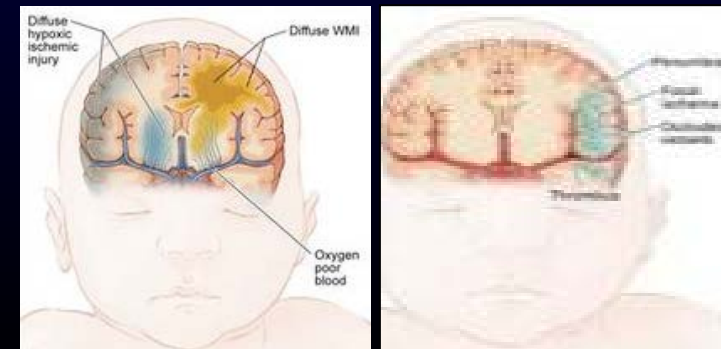
- Perinatal hypoxia/ischemia*
- Head injury/trauma
- Infection (e.g. encephalitis, meningitis)

CVI is suspected by:

- a "normal" eye examination (ocular findings do not correspond to visual impairment)
- visual acuity ranging from near normal to profound blindness and visual field deficits (usually inferior).
- characteristic neuroradiological findings (periventricular leukomalacia and/or white matter injury)
- a medical history which includes neurological impairment (e.g. cerebral palsy, epilepsy)
- the presence of unique visual/behavioral dysfunctions (e.g. *visuo-spatial and motion processing, complexity/crowding, and attention deficits*)



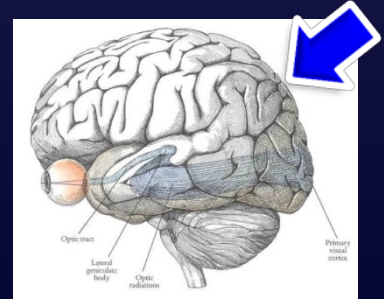
(Term) Hypoxic Ischemic Encephalopathy



The "C" in CVI: Cortical vs. Cerebral

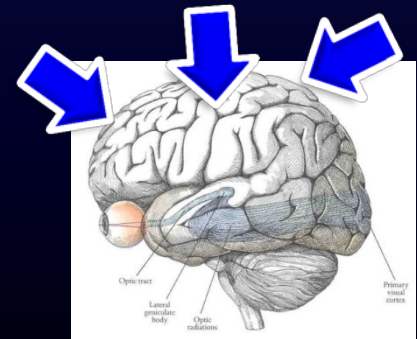
Cortical Visual Impairment:

- damage to early visual areas and/or optic radiations
- typically, poor visual acuity and visual field defects



Cerebral Visual Impairment:

- damage to higher order visual areas
- typically, normal to moderate visual acuity and “higher order” visual perceptual deficits



...cortical and cerebral visual impairment are not mutually exclusive