

# Wilson's Disease

## ● CT:

- Copper deposition does not affect density
- Atrophy
- Variable hypodensity in the lenticular nuclei and thalami
- No enhancement

# Wilson's Disease

- **Atrophy**

- **MRI T1:**

- Generally hypointense in BG
- Hyperintense in GP related to hepatic failure or paramagnetic effects of copper
- No enhancement

- **MRI T2:**

- Variable signal in putamen, GP, caudate, thalamus
- Low signal related to iron content

# Wilson's Disease

## ● MRI DWI:

- Immediately: Restricted diffusion with cell swelling and inflammation
- Subsequently: Low DWI, High ADC with increased diffusivity in necrotic cells and demyelination

## ● MRS:

- Decrease NAA/Creatine for neuronal loss in GP

# **Wilson's Disease**

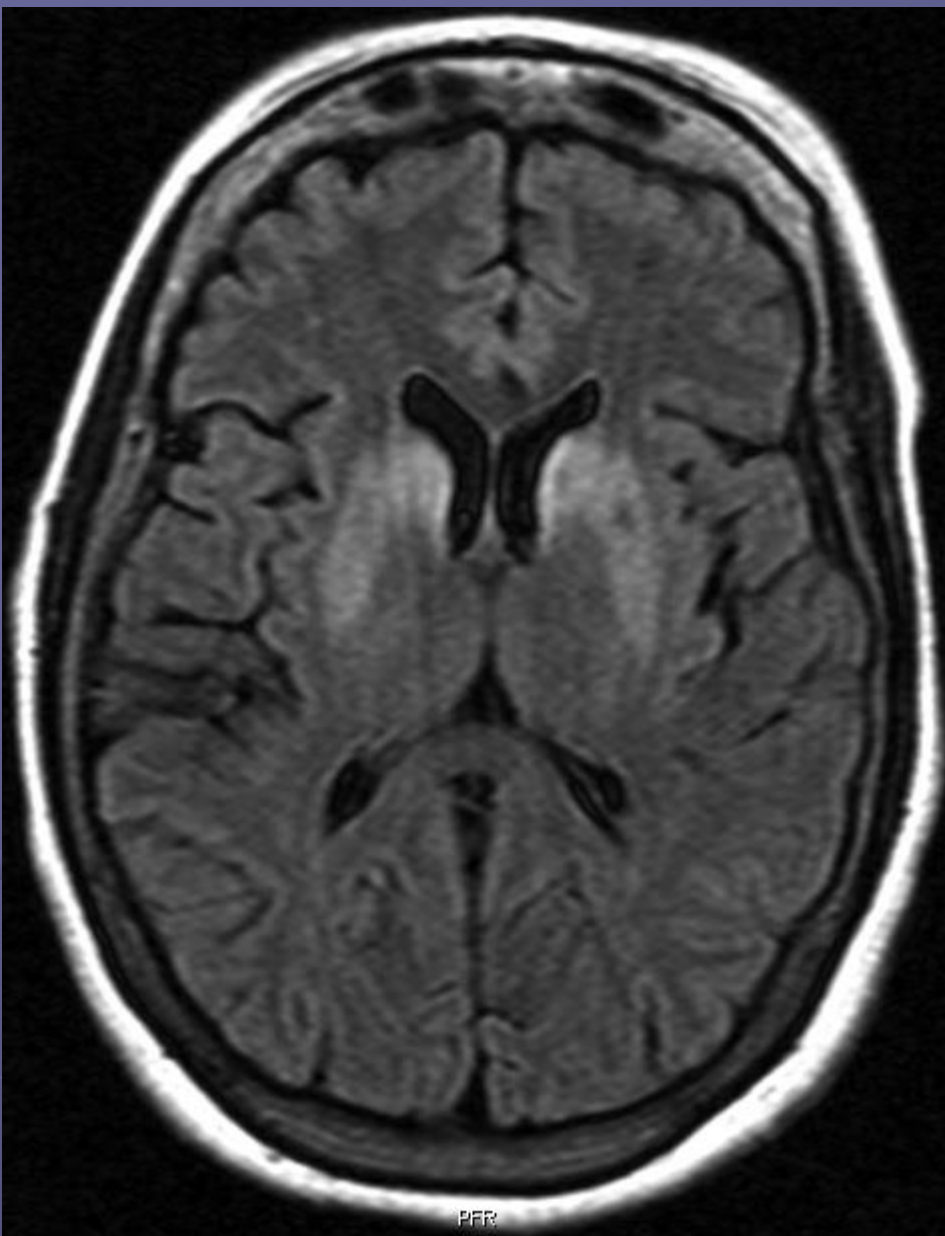
## **Hepatolenticular Degeneration**

- **Excess copper deposition in brain, particularly in the BG**
- **Impaired biliary copper excretion**
- **Brain lesions caused by Copper accumulation, chronic ischemia, vasculopathy, or demyelination**
- **Autosomal recessive**

# Wilson's Disease: Symptoms

- **Neurologic:** tremor, ataxia, dyskinesia, dysarthria, dystonia, Parkinsonian symptoms
- **Psychiatric:** irritability, personality change, depression/mania, psychosis
- **Hepatitis**
- **Kayser-Fleischer rings**





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