

# Heroin-induced leukoencephalopathy

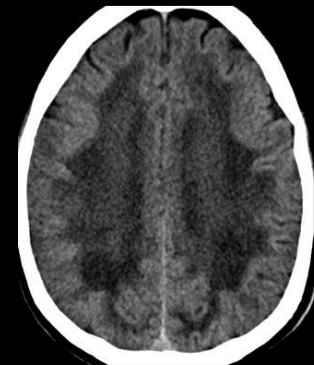
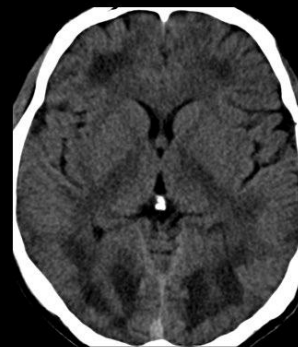
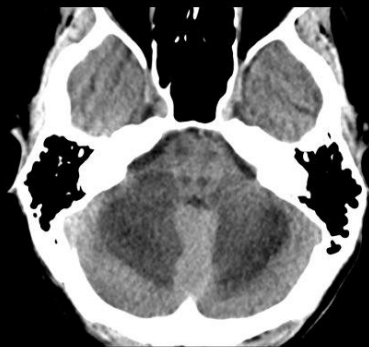
- Heroin-induced leukoencephalopathy,
- Heroin-associated spongiform leukoencephalopathy
- Toxic leukoencephalopathy caused by the inhalation of heroin fumes, which is called "chasing the dragon."

# MRI

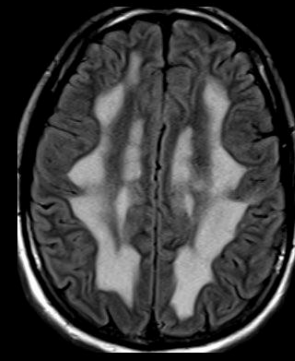
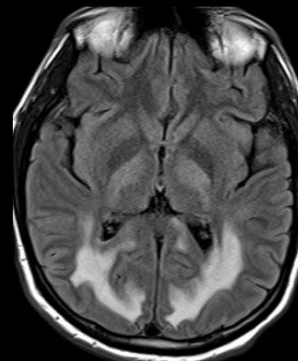
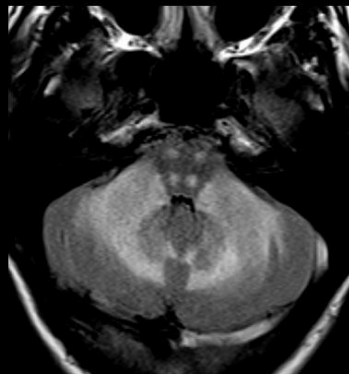
- Similar to other toxic leukoencephalopathies with widespread white matter hyperintensity on T2/FLAIR sequences involving both supra- and infratentorial compartments, but with a characteristic distribution:
- Symmetrical involvement of the posterior limb of the internal capsules extending inferiorly into the pontine corticospinal tracts, and superiorly into the periolandic subcortical white matter
- Symmetrical butterfly wing pattern involvement of the cerebellar white matter and middle cerebellar peduncles (one of the causes of the so-called MCP sign)
- Sparing of adjacent grey matter structures and subcortical U-fibers
- Typically regions demonstrate high DWI signal, which only sometimes represents true diffusion restriction.

# Young adult, altered mental status

Top Row -  
Non-Contrast CT Head



Bottom Row -  
Axial FLAIR MRI



**#ASNRCOTW**

American Society of Neuroradiology

Courtesy of Patrick Janeczko, Aidan Farrell, Nicholas Cassimatis and Rita Patel MD, Hackensack Meridian University Medical Center/School of Medicine

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# Chasing the Dragon



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