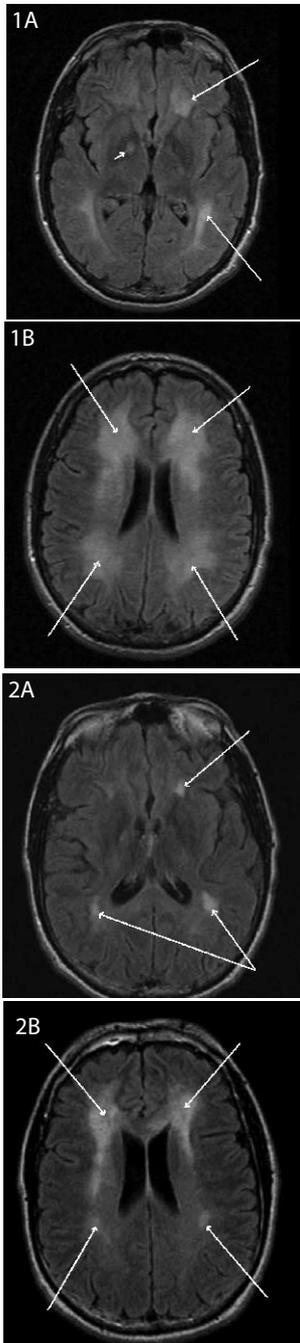


Reversible delayed hypoxic leukoencephalopathy associated with methadone overdose

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A 42-year-old man developed coma and hypoxic respiratory arrest after snorting and ingesting methadone and required transient intubation and mechanical ventilation in the emergency department (ED). He was given naloxone intravenously, woke up and was extubated. He was dismissed from the ED but according to the wife later became somnolent and possibly intermittently apneic overnight. He was brought back to the ED where he was reintubated, and admitted to the intensive care unit. He was found to be hypotensive which responded to normal saline. After a couple days he was extubated and was mildly encephalopathic. Over the next month, the patient developed progressive cognitive decline, disinhibited behavior, hypersexuality, poor concentration, and mild parkinsonism. Marked white matter abnormalities were evident on MRI (Figure 1A and B). Results of arylsulfatase and galactocerebroside testing for adult-onset metachromatic leukodystrophy and Krabbe disease were normal. Six months later, the patient's clinical condition and MRI findings improved (Figure 2A and B) but did not completely normalize. The hallmark of narcotic-associated hypoxic leukoencephalopathy ("Chasing the Dragon") is its delayed yet reversible neurologic and MRI appearance (1, 2) as opposed to progressive metabolic leukodystrophy which progressively worsens unless an underlying cause is discovered. The putative mechanisms causing the delayed leukoencephalopathy are 'leukotoxins' or the carrier agents within the opiate drugs. This condition was originally described as "Chasing the Dragon" by heroin users who would inhale the vapors of smoke ("dragon") from burning heroin (1, 2).

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