

WERNICKE'S ENCEPHALOPATHY

Addressing malnutrition in alcohol
used disorders

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WHAT WE WILL COVER

- Thiamine and why it is important
- Why does WE happen?
- What does WE look like?
- How do we treat WE?
- What happens if we do not recognise and treat WE?

THIAMINE



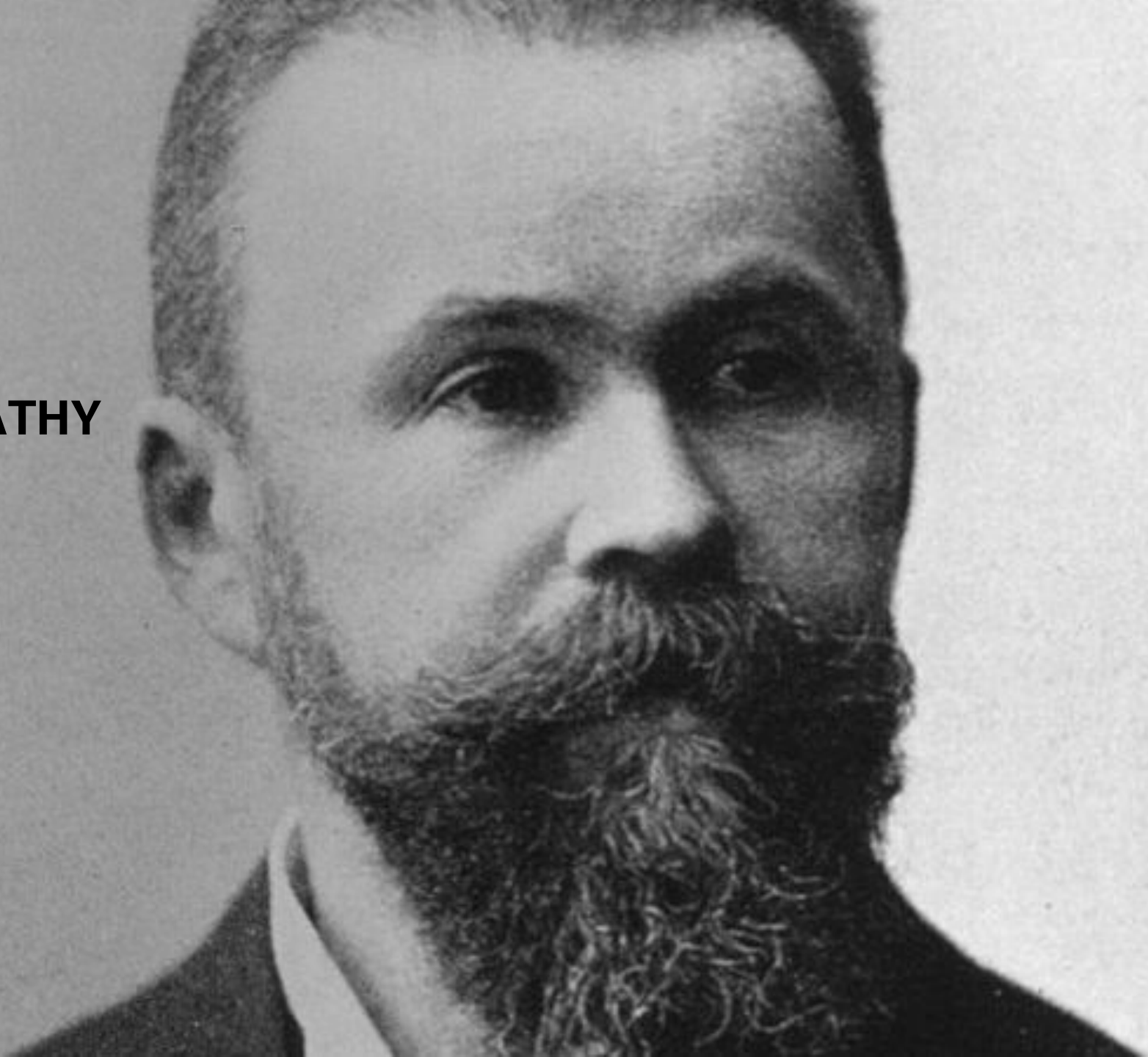


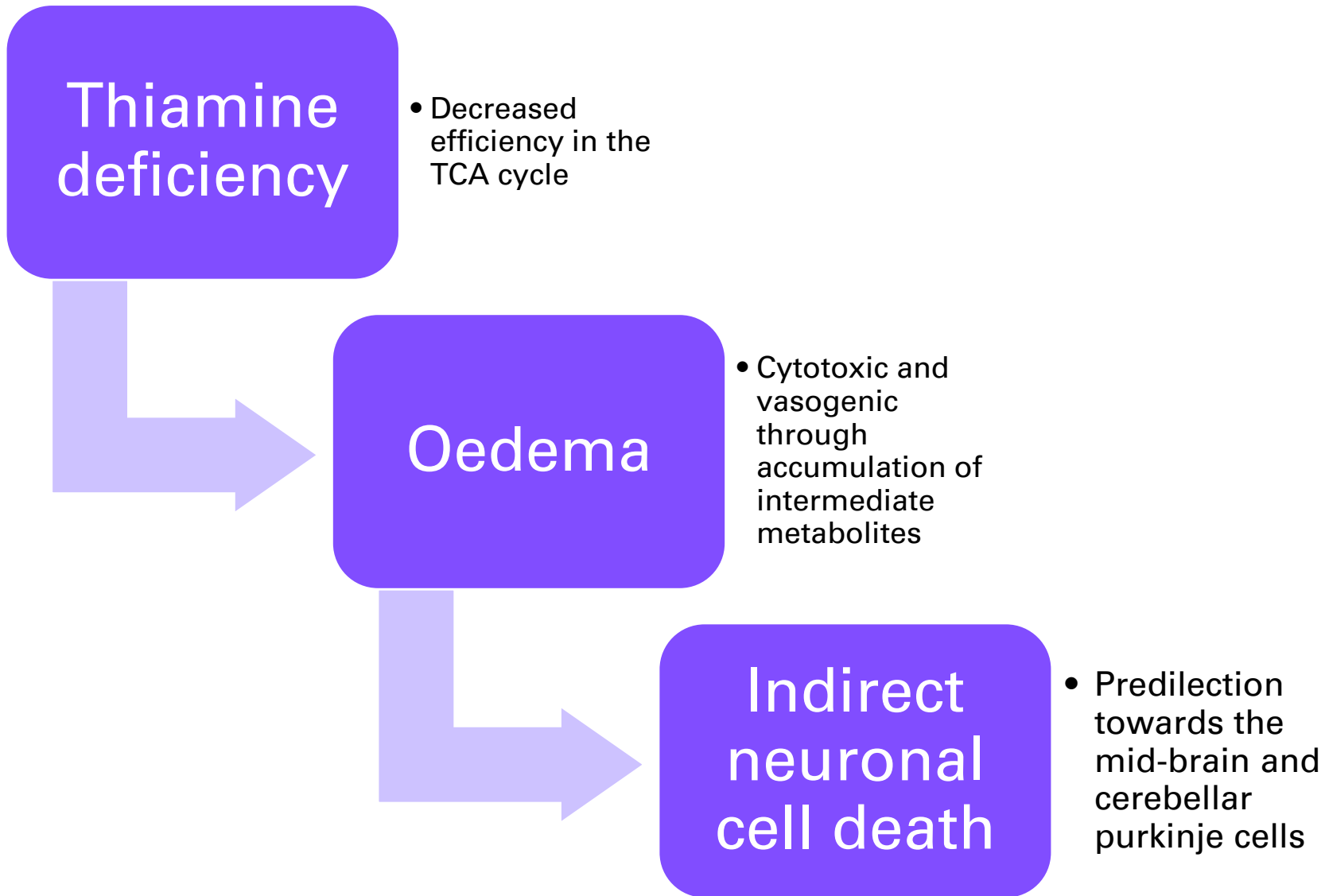
THIAMINE

- Vitamin B1
- Dependent on exogenous sources
- Several functions in metabolism
- In brain health, it is a key part of oxidative metabolism, particularly the mid-brain and cerebellum
- Absorption is in the gut, and stores are limited and typically protein bound
- In dependent drinkers, nutrition is already poor, absorption is less efficient and hepatic dysfunction limits stores
- Without it, indirect neuronal cell death occurs

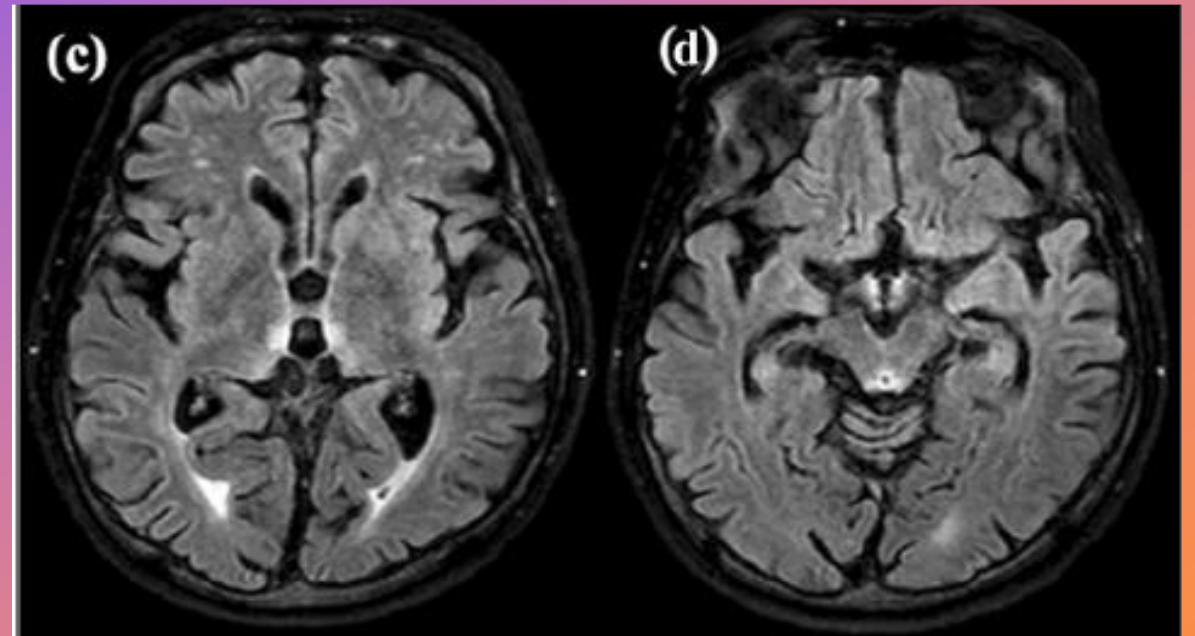
**WERNICKE'S
ENCEPHALOPATHY**

**WHY DOES IT
HAPPEN?**





**WHAT
DOES IT
LOOK
LIKE....?**



WERNICKE'S ENCEPHALOPATHY

- Acute neurological disorder arising from thiamine deficiency
- Often seen in (but not always) alcohol dependence
- Classic triad of confusion, ophthalmoplegia and ataxia; but
 - Only 10% present this way
 - Often just confusion
 - Under-diagnosed (post-mortem studies suggest up to 80% is missed)
- Treatment is presumptive, and so further investigations are confirmatory only (e.g. MRI head)

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TREATMENT





TREATMENT

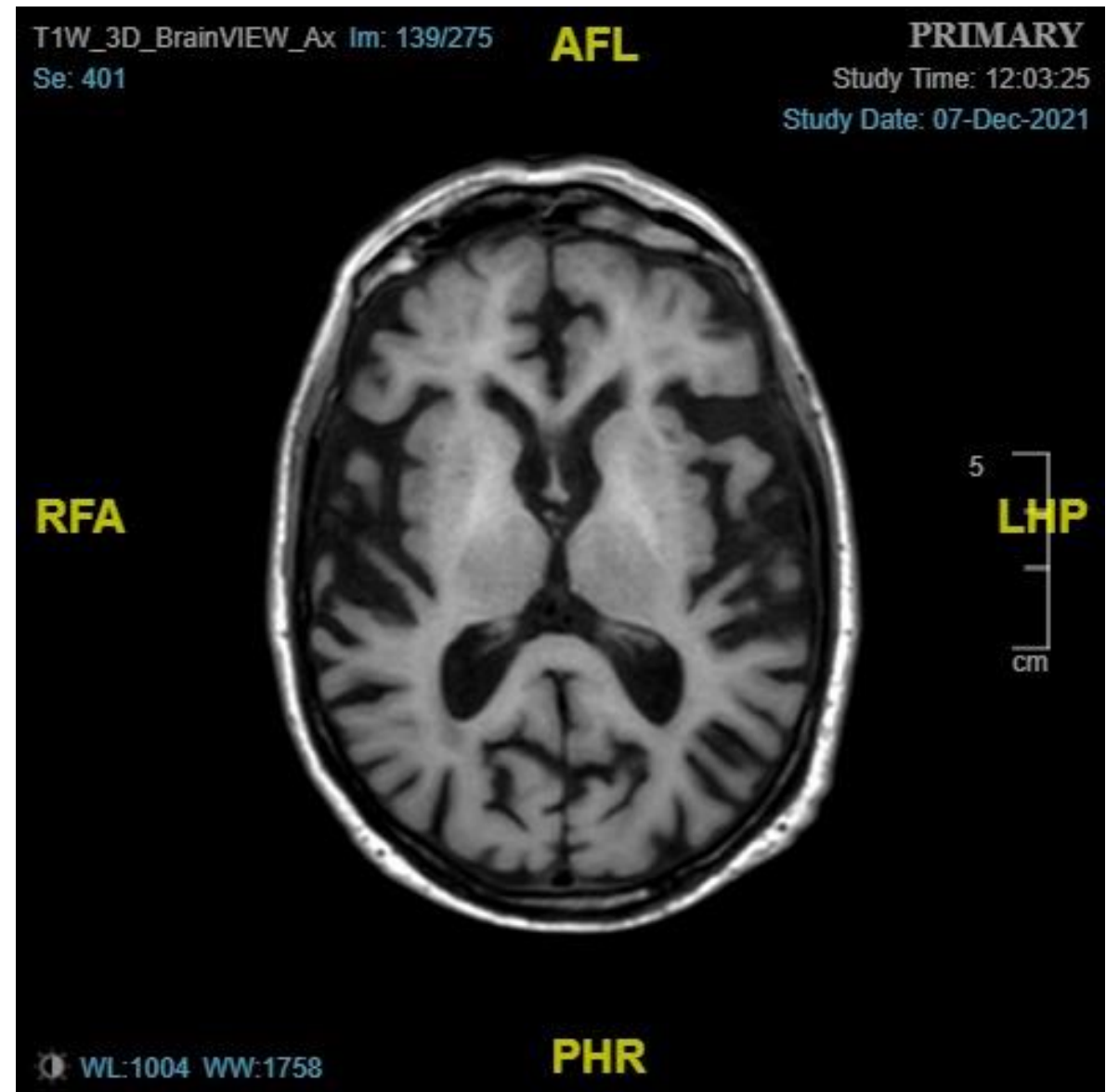
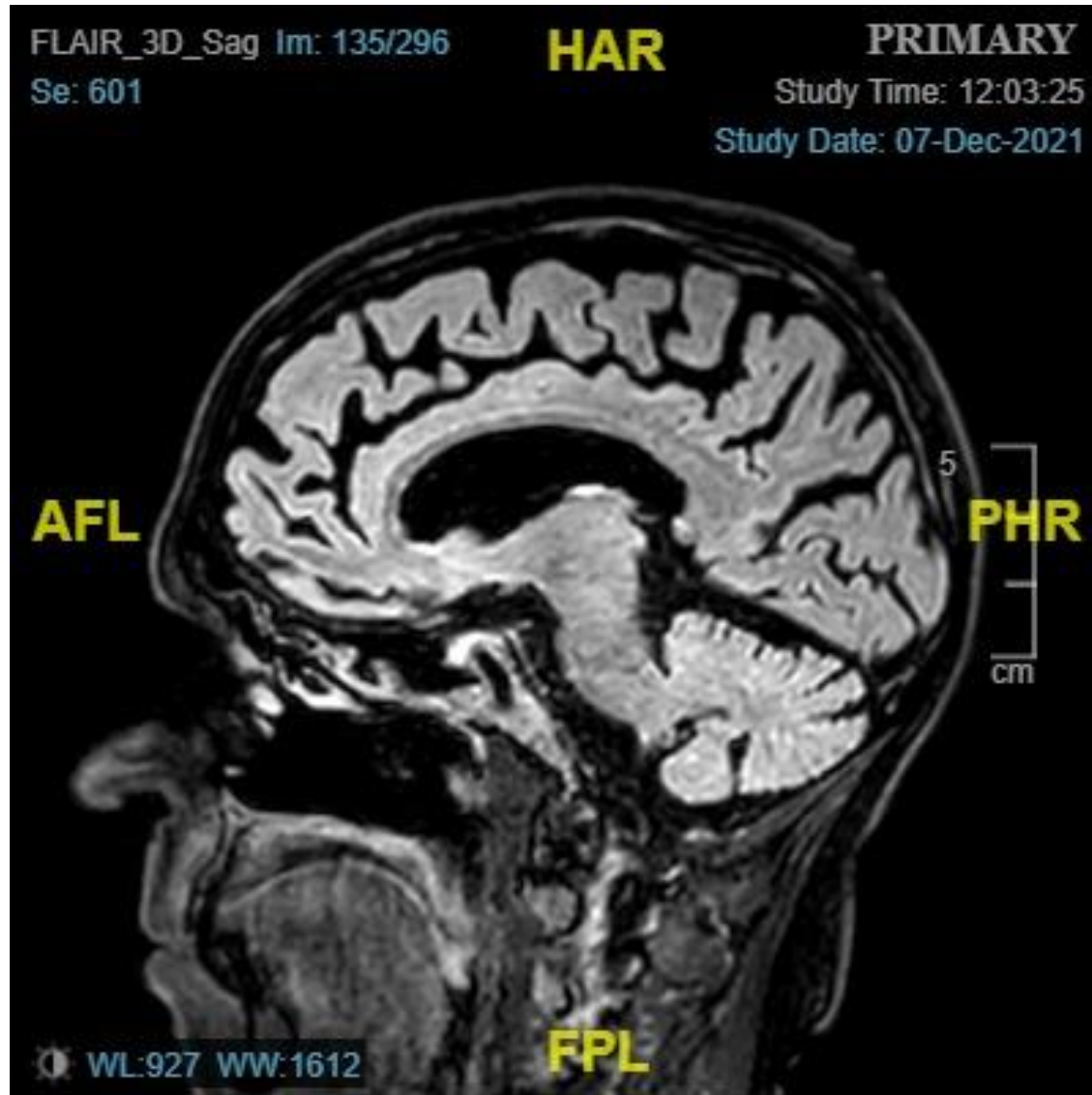
- Low threshold for suspicion of WE
- Treat with high dose parenteral thiamine (e.g. Pabrinex 2 pairs TDS for at least 5 days – often need considerably more)
- Medically-assisted withdrawal is often needed too (fixed-dose or symptom triggered approaches)
- Supportive environment to manage confusion non-pharmacologically wherever possible
- Ophthalmological signs are the first to improve (hours), ataxia (few days) and then confusion (several weeks)
- Oral thiamine supplementation as prophylaxis is an option

1.2 Wernicke's encephalopathy

- 1.2.1.1 Offer thiamine to people at high risk of developing, or with suspected, Wernicke's encephalopathy. Thiamine should be given in doses toward the upper end of the 'British national formulary' range. It should be given orally or parenterally as described in recommendations 1.2.1.2 to 1.2.1.4. [2010]
- 1.2.1.2 Offer prophylactic oral thiamine to [harmful or dependent](#) drinkers:
- if they are [malnourished](#) or at risk of malnourishment or
 - if they have [decompensated liver disease](#) or
 - if they are in acute withdrawal or
 - before and during a planned [medically assisted alcohol withdrawal](#). [2010]
- 1.2.1.3 Offer prophylactic parenteral thiamine followed by oral thiamine to harmful or dependent drinkers:
- if they are malnourished or at risk of malnourishment or
 - if they have decompensated liver disease
- and in addition**
- they attend an emergency department or
 - are admitted to hospital with an acute illness or injury. [2010]
- 1.2.1.4 Offer parenteral thiamine to people with suspected Wernicke's encephalopathy. Maintain a high level of suspicion for the possibility of Wernicke's encephalopathy, particularly if the person is intoxicated. Parenteral treatment should be given for a minimum of 5 days, unless Wernicke's encephalopathy is excluded. Oral thiamine treatment should follow parenteral therapy. [2010]

**WHAT IF WE
FAIL TO
RECOGNISE
AND
TREAT...?**







THANK YOU

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