The Banana Bag: Small Potatoes against Wernicke’s Encephalopathy

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Objectives
- To recognize that Wernicke’s encephalopathy can present with encephalopathy alone
- To understand the utility of neuroimaging in the diagnosis of Wernicke’s encephalopathy
- To review thiamine repletion guidelines for suspected cases of Wernicke’s encephalopathy

Case Description

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<td>55 year old man with alcoholism admitted with encephalopathy and ataxia, no neurological deficits</td>
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<tr>
<td>Readmitted within 48 hrs with encephalopathy and ataxia + new findings of lateral gaze palsy, confabulation, and nystagmus</td>
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Overview of Wernicke’s Encephalopathy
- Wernicke’s encephalopathy (WE) is a serious yet reversible sequelae of alcoholism resulting from profound thiamine depletion
- Untreated, up to 20% of cases result in fatality, and 85% of survivors develop irreparable brain damage, i.e. the Korsakoff syndrome

The Classic Triad of Wernicke’s
- Only 20% of cases manifest with the “classic triad”
- Majority of cases present only with encephalopathy (i.e. hospitalization #1)

Diagnosis
- Usually a clinical diagnosis
- Neuroimaging has a limited role:
  - Head CT offers negligible detection
  - MRI only 53% sensitive
- Findings suggestive of WE include increased signaling in mamillary bodies, periaqueductal area, and thalamus

Treatment
- For high-risk patients (i.e. alcoholics) presenting with encephalopathy:
  - Thiamine 250mg IM/IV daily for 3-5 days (banana bags do not suffice)
- If a definitive diagnosis of WE is established:
  - Thiamine 500mg IM/IV daily for 2-3 days, then 250mg daily for 3-5 days, then daily supplementation

Take Home Points
- Wernicke’s encephalopathy often manifests as encephalopathy alone, without cerebellar ataxia or ophthalmoplegia
- Although MRI neuroimaging may support a diagnosis of WE, it should not be used to exclude a diagnosis of WE given its low sensitivity
- Patients at high-risk for WE warrant high-dose thiamine repletion when presenting with encephalopathy – “banana bags” do not suffice

References