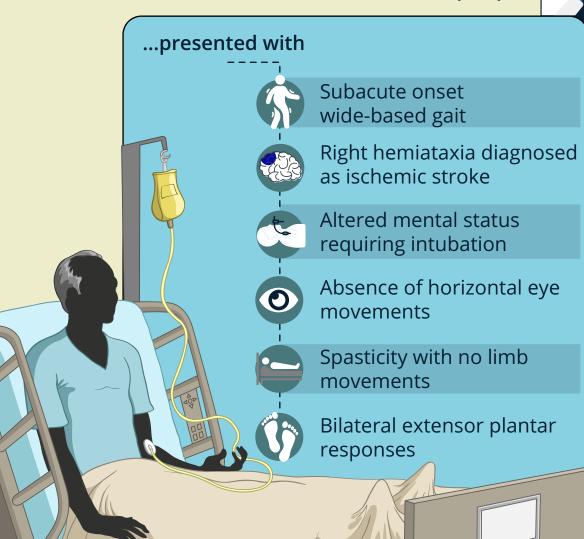
## A Case of Brainstem Involvement in Progressive Multifocal Leukoencephalopathy

A 71-year-old man with history of...

Type 2 diabetes

Hypertension

Chronic lymphocytic leukemia (CLL)



## Question for consideration

What are the possible causes of rapidly progressive brainstem and cerebellar symptoms?



MRI

## **Investigations**

CT Hypodensity in the right middle cerebellar peduncle

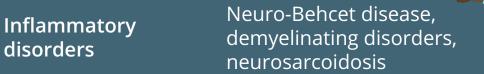
Abnormal T2/FLAIR signal in the middle cerebellar peduncles extending into the cerebellum, pons, and pontomedullary junction

**EEG** Diffuse encephalopathy

Blood Unremarkable

PCR Positive for John Cunningham virus (JCV) DNA

## **Differential diagnosis**



Infections Listeria, enteroviruses, herpesviruses

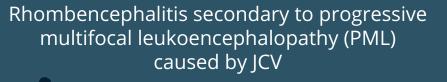
Neoplastic Lymphoma, aetiologies brainstem glioma

Toxic and metabolic causes

Posterior reversible encephalopathy syndrome

Osmotic demyelination syndrome

Final diagnosis



Autopsy: PML



PML is an incurable disease and may present with brainstem involvement and occur in association with CLL, even if the patient is stable without history of immunotherapy

