

Neurology Picture Quiz Answers

Case 1

- a) Paramagnetic Rim Lesion (PRL)
- b) Mc Donald Criteria

Case 2

- a) Moya Moya disease
- b) Ivy sign

MRI shows increased signal intensity in bilateral subarachnoid spaces and perivascular spaces on T2-weighted fluid attenuation inversion recovery (FLAIR) MRI.

The ivy sign refers to the MRI brain appearance of patients with moyamoya disease or moyamoya syndrome. Prominent leptomeningeal collaterals result in high signal on FLAIR due to slow flow and vivid contrast enhancement on post-contrast T1. The sign may be more reliably seen on post-contrast T1 than FLAIR. The appearance is reminiscent of the brain having been covered with Ivy.



On level ground ivies remain creeping, not exceeding 5-20 cm height, but on surfaces suitable for climbing, including trees, natural rock outcrops or man-made structures such as quarry rock faces or built masonry and wooden structures, they can climb to at least 30 m above the ground.

Case 3

- a) Aquaporin Type 1 – Idiopathic Intracranial hypertension
- b) Aquaporin Type 4 – Neuromyelitis Optica

Case 4

- a) Neuro-Behcet's disease.
- b) Waterfall sign or Cascade sign.

The “waterfall sign” on a brain MRI is a radiological finding characterized by a continuous, high-signal intensity area on T2-weighted or FLAIR sequences that extends from the thalamus and/or internal capsule down to the ipsilateral midbrain. This sign is most commonly associated with neuro-Behcet disease but has also been reported in other conditions such as multiple sclerosis (MS), neuromyelitis optica spectrum disorder (NMOSD), myelin oligodendrocyte glycoprotein antibody-associated disease (MOGAD), and glioma.

Case 5

- a) Brun's syndrome b) Neurocysticercosis

Brain MRI showed obstructive hydrocephalus and a cystic lesion in the fourth ventricle. Symptoms subsided after cyst excision; a histopathologic diagnosis of neurocysticercosis was made. This clinical picture matches the Bruns syndrome, due to a mobile ventricular mass producing episodic hydrocephalus on changing head posture.

Bruns syndrome is a rare but serious presentation of intraventricular neurocysticercosis, caused by the pork tapeworm larvae (*Taenia solium*) lodging in the brain's ventricles. It is characterized by sudden, severe headaches, vertigo, and vomiting triggered by abrupt head movements, caused by a cyst temporarily obstructing cerebrospinal fluid flow, leading to a “ball-valve” effect.