Postpartum Posterior Reversible Encephalopathy Syndrome (PRES) After Postdural Puncture Headache

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Introduction:

- Posterior Reversible Encephalopathy Syndrome (PRES) is rare and characterized by insidious onset of headache, altered mental status, seizures and cortical blindness with posterior leukoencephalopathy on imaging studies.⁽¹⁾
- Incidence and pathophysiological mechanism are unknown, but it has been associated with hypertensive encephalopathy, immunosuppression and postpartum eclampsia ⁽²⁾.
- We describe a case of PRES associated with postdural puncture headache (PDPH) and Liquor Hypotension Syndrome (LHS)

Case Report:

- ✓ 25YO, G2P1, 39W+3D.
- ✓ ASA 2.
- ✓ Epidural analgesia for eutocic delivery (difficult technique with multiple attempts).
- ✓ Hemodynamic stability kept during labor and delivery
- ✓ PDPH few hours after birth. Conservative management.

CT scan: A, B – bilateral occipital hypodensities; **Venous-CT:** C, D – thrombosis excluded

Brain MR imaging : A-E –hyperintense areas on T2/FLAIR within the bilateral parietoccipital lobes with vasogenic edema; patchy left parietal area with cytotoxic oedema.

Brain MR angiography: F -arterial vasospasm, specially at posterior circulation, and subdural effusions..

- Treatment:** Dorsal decubitus at 0°, hydration, paracetamol, NSAIDs, caffeine and nimodipine.
- Evolution:** Hemodynamically stable with clinical and imaging improvement.

**Hospital discharge at D24 after complete recovery from blindness .
Asymptomatic at six month and one year evaluation.**

Discussion:

- This is the third clinical case reported in literature.
- Clinical symptoms and neuroimaging findings are compatible with PRES.
- The exact PRES mechanism remains unknown. Temporal association of encephalopathy with diffuse cerebral vasospasm after an episode of PDPH / LHS may be causative.
- Prompt recognition and treatment of PRES/LHS are crucial to avoid the permanent damage leading to sequelae and mortality.

Referencies:

⁽¹⁾ T Hammad et al. Posterior Reversible Encephalopathy Syndrome Secondary to CSF Leak and Intracranial Hypotension: A Case Report and Literature Review. Case Reports in Neurological Medicine 2015; ⁽²⁾ H Chiu-Ming, C Kwok-Hon. Posterior Reversible Encephalopathy Syndrome with Vasospasm in a Postpartum Woman After Postdural Puncture Headache Following Spinal Anesthesia. AnesthAnalg 2007; 105:770-2.