

Intrapartum Reversible Cerebral Vasoconstriction Syndrome (RCVS) with Management Complicated by Severe, Intercurrent Major Depressive Disorder: A Case of Balancing Risk

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BACKGROUND

- RCVS is characterised by an acute, severe, thunderclap headache associated with multifocal cerebral arterial vasoconstriction on imaging (string of beads appearance)
- Attacks are recurrent in 94% of cases¹
- Clinical and radiological resolution occurs spontaneously within 12 weeks
- Complications:** focal neurological deficits, seizures, subarachnoid haemorrhage (SAH), stroke and death
- Pathogenesis:** dysregulated cerebrovascular tone - Can either occur spontaneously or be triggered
- Triggers:** serotonergic antidepressants, adrenergic agents, MAOIs, cannabis, amphetamines - Response can be immediate or delayed
- Differentials:** SAH, pre-eclampsia (PET)
- Diagnosis:** digital subtraction angiography (gold-standard; invasive) OR time-of-flight magnetic resonance angiography (TOF-MRA)/CT angiography
- Management:** monitoring, analgesia, avoidance of triggers, calcium channel blockers (weak evidence)

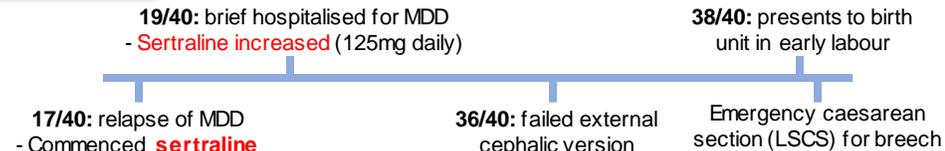
POST-PARTUM RCVS

- A well-defined subset of RCVS
- Previously known as post-partum angiopathy
- Accounts for 9% of all RCVS cases²
- Responsible for 50% of RCVS-related deaths³

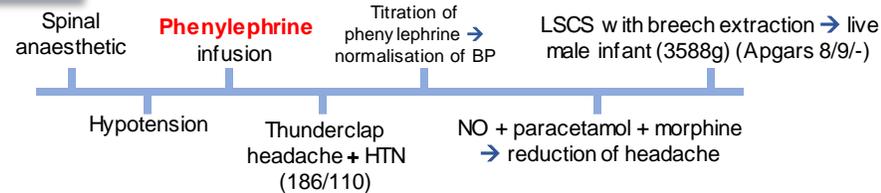
THE CASE

- 32F G1P0**
- Obstetric History:** breech
- Past Medical History:** Major depressive disorder (MDD)
- Family History:** MDD (parent + sibling), pre-eclampsia (mother)

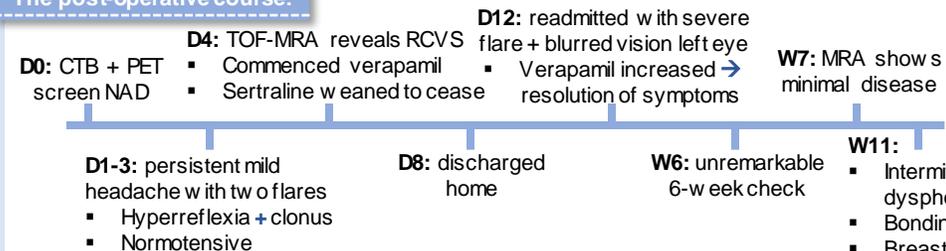
The pregnancy:



The operation:

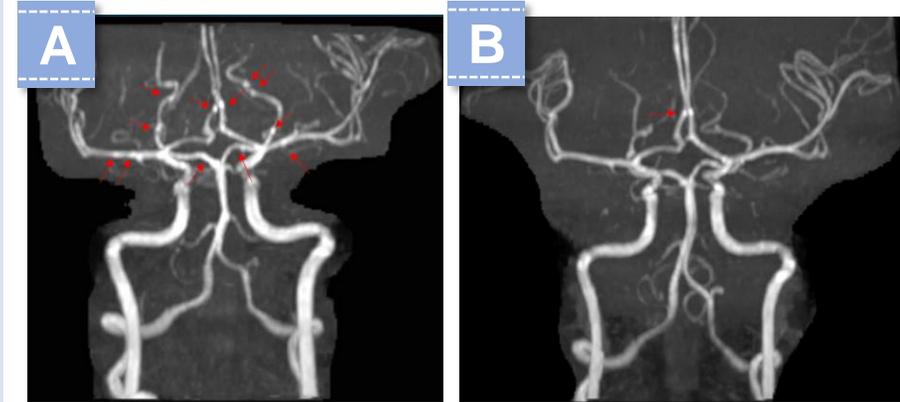


The post-operative course:



THE IMAGES

- TOF-MRA images taken at day-4 (A) and week-7 (B) post initial headache. Red arrows highlight the areas of vasoconstriction.



DISCUSSION

- A thunderclap headache in the peri-partum setting should prompt suspicion of RCVS, particularly in patients with recent exposure to vasoactive agents or a negative SAH/pre-eclampsia screen
- It is not always as easy as "avoiding the triggers" and care should be individualised. In this case, there was a dilemma: on the one hand, sertraline may have contributed to her debilitating headaches, whilst on the other, the patient had a long history of severe depression with suicidal thoughts requiring recent hospitalisation. The decision to wean the sertraline was made following extensive multi-disciplinary discussions between obstetrics, neurology, psychiatry and the patient herself.
- RCVS has the potential to affect a patient's outlook on future pregnancies. The patient reported feeling "very anxious" about the thought and while she would like another child, she is "terrified" at the risk of recurrence and the possibility of stroke. In a study looking at long-term outcomes, 3/5 women whose previous pregnancy had been affected by RCVS, and who had become pregnant again, underwent elective abortions purely out of fear of disease recurrence⁴.

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