

## Intracranial hypotension and PRES

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Sir,

Pugliese and colleagues [1] reported a female case presenting worsening of the headache and tonic-clonic seizures 7 days after epidural analgesia for a caesarean section. They proposed their diagnoses of intracranial hypotension (IH), secondary to the inadvertent dural puncture, and posterior reversible encephalopathy syndrome (PRES), which evolved from IH, based on MRI findings as well as clinical manifestations. The case is intriguing in that it helps to enrich the etiology of PRES, while we would like to raise some questions concerning the diagnosis of this case.

As regards the diagnosis of IH, the gold standard is lumbar puncture to detect the intracranial pressure. However, it was absent in this case study. In this regard, their diagnosis of IH mainly based on the presence of

pachimeningeal thickening, enhancing after contrast administration is not convincing enough. The enhancement might be due to increased permeability or damage of blood-brain barrier resulting from tonic-clonic seizures of the patient [2]. In particular, Fig. 1a in their article is apparently not a T2-weighted image. Probably, it is a fluid-attenuated inversion recovery (FLAIR) image.

As far as PRES is concerned, its diagnosis and association with IH should be made with caution, since relationship between IH and PRES has not been reported in literature. Although the authors suggested two different but related mechanisms involved in IH that may lead to PRES [1], etiologies of PRES including hypertension (61%), cytotoxic medications (19%), sepsis (7%), preeclampsia or eclampsia (6%), and multiple organ dysfunction (1%) [3] should be carefully ruled out from this case.

In summary, this is an interesting case suggestive of IH and PRES by clinical and MRI findings, although the potential relationship between IH and PRES still needs further investigation.

**Conflict of interest** None.

### References

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