Reversible deep brain swelling causing REM behavior disorder

Figure Reversible deep brain swelling after lumbar epidural blood patch

MRI at presentation (A) shows severe brain sagging at the level of the tentorial incisura with a swollen aspect of the upper brainstem and diencephalon and flattening of the pons against the clivus. Follow-up MRI (B) after 3 months demonstrates amelioration of brainstem configuration. The brainstem, however, has not returned to a completely normal shape.

A 65-year-old woman presented with chronic lingering headache and REM sleep behavior disorder (RBD). Head MRI (figure) showed spontaneous intracranial hypotension (SIH) with deep brain swelling (DBS),¹ and CSF opening pressure was low. She was treated with lumbar epidural blood patch. Within 3 months, she became asymptomatic with improvement of brain sagging. Since SIH with DBS is related to brain sagging with deformity of the diencephalon and midbrain and since focal brain lesions may cause RBD,² distortion and dysfunction of REM sleep circuits in this patient may be caused by DBS. RBD expands the clinical spectrum of SIH.

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Study funding: No targeted funding reported.

Disclosure: The authors report no disclosures relevant to the manuscript. Go to Neurology.org for full disclosures.

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Neurology 2016;86;1360

DOI 10.1212/WNL.0000000000002548

This information is current as of April 4, 2016

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