Teaching NeuroImages: Posterior reversible encephalopathy syndrome resulting in hydrocephalus

A woman with prior lung transplantation presented with headaches, seizure, and obtundation. Head MRI (figure) revealed obstructive hydrocephalus and hyperintensity on T2-weighted imaging in the bilateral thalami and brainstem. Management included antiepileptic medications, ventriculostomy placement, and cessation of tacrolimus for concern of atypical posterior reversible encephalopathy syndrome (PRES). Infectious and paraneoplastic etiologies were ruled out. An autoimmune process was unlikely due to immunosuppression. There was rapid clinical improvement with repeat MRI revealing resolution of hydrocephalus and T2 changes. Hydrocephalus is a rare but devastating complication, which should be considered in posterior fossa dominant PRES.1,2 Early recognition is critical to ensuring recovery.

**AUTHOR CONTRIBUTIONS**
Dr. Paolini: drafting the manuscript, analysis or interpretation of data, acquisition of data. Dr. Jadhav: revising the manuscript, analysis or interpretation of data.

**STUDY FUNDING**
No targeted funding reported.

**DISCLOSURE**
The authors report no disclosures relevant to the manuscript. Go to Neurology.org for full disclosures.

---

**Figure**
Brain MRI pre- and posttreatment

Day 1 reveals obstructive hydrocephalus in addition to hyperintensity on T2-weighted imaging in the bilateral thalami, midbrain, and pons. Day 7 shows repeat MRI 6 days later with resolution of hydrocephalus and near total resolution of hyperintensity on T2-weighted imaging. FLAIR — fluid-attenuated inversion recovery.

Download teaching slides: Neurology.org
REFERENCES

Teaching NeuroImages: Posterior reversible encephalopathy syndrome resulting in hydrocephalus
Stephanie Paolini and Ashutosh P. Jadhav
Neurology 2016;86:e242-e243
DOI 10.1212/WNL.0000000000002746

This information is current as of June 6, 2016

<table>
<thead>
<tr>
<th>Updated Information &amp; Services</th>
<th>including high resolution figures, can be found at: <a href="http://www.neurology.org/content/86/23/e242.full.html">http://www.neurology.org/content/86/23/e242.full.html</a></th>
</tr>
</thead>
<tbody>
<tr>
<td>Supplementary Material</td>
<td>Supplementary material can be found at: <a href="http://www.neurology.org/content/suppl/2016/06/04/WNL.0000000000002746.DC1">http://www.neurology.org/content/suppl/2016/06/04/WNL.0000000000002746.DC1</a></td>
</tr>
<tr>
<td>References</td>
<td>This article cites 2 articles, 0 of which you can access for free at: <a href="http://www.neurology.org/content/86/23/e242.full.html##ref-list-1">http://www.neurology.org/content/86/23/e242.full.html##ref-list-1</a></td>
</tr>
</tbody>
</table>
| Subspecialty Collections      | This article, along with others on similar topics, appears in the following collection(s):
Hydrocephalus: [http://www.neurology.org/cgi/collection/hydrocephalus](http://www.neurology.org/cgi/collection/hydrocephalus)
Other cerebrovascular disease/Stroke: [http://www.neurology.org/cgi/collection/other_cerebrovascular_disease_stroke](http://www.neurology.org/cgi/collection/other_cerebrovascular_disease_stroke)
Secondary headache disorders: [http://www.neurology.org/cgi/collection/secondary_headache_disorders](http://www.neurology.org/cgi/collection/secondary_headache_disorders) |
| Permissions & Licensing       | Information about reproducing this article in parts (figures, tables) or in its entirety can be found online at: [http://www.neurology.org/misc/about.xhtml#permissions](http://www.neurology.org/misc/about.xhtml#permissions) |
| Reprints                      | Information about ordering reprints can be found online: [http://www.neurology.org/misc/addir.xhtml#reprintsus](http://www.neurology.org/misc/addir.xhtml#reprintsus) |