A 49-year-old woman presented with status migrainosus. A CT head revealed only bilateral symmetric burr holes in the posterior paramedian calvarium despite no prior cranial surgery (figure). These holes ultimately represented enlarged parietal foramina (EPF) unrelated to her presentation. EPF are rare developmental defects of the parietal bones (prevalence of 1:15,000–50,000) commonly due to an abnormal ossification pattern associated with heterogeneous homeobox gene mutations. Though rarely associated with craniofacial and vascular malformations, headaches, and epilepsy, EPF are usually benign, incidental findings, ranging from few millimeters to several centimeters in diameter, and frequently located in the upper, posterior parietal bones.1,2

**Study funding**
No targeted funding reported.

**Disclosure**
The authors report no disclosures relevant to the manuscript. The views expressed in this article are those of the authors and do not reflect the official policy of the Department of Army, Navy, Air Force, Department of Defense, or US Government. Go to Neurology.org/N for full disclosures.

**References**
**Appendix Authors**

<table>
<thead>
<tr>
<th>Name</th>
<th>Location</th>
<th>Role contribution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Juan Fernandez, MD</td>
<td>WRNMMC, Bethesda, MD</td>
<td>Case report concept, design and critical revision of content, takes responsibility for the data, the analyses and interpretation, and the conduct of the case report</td>
</tr>
<tr>
<td>Sarah Woodson, MD</td>
<td>WRNMMC, Bethesda, MD</td>
<td>Critical revision of the manuscript content and figure design</td>
</tr>
<tr>
<td>Kevin Cannard, MD</td>
<td>WRNMMC, Bethesda, MD</td>
<td>Critical revision of the manuscript content and figure design</td>
</tr>
</tbody>
</table>
Teaching NeuroImages: Enlarged parietal foramina inadvertently labeled as burr holes
Juan Fernandez, Sarah Woodson and Kevin Cannard
Neurology 2019;93:e827-e828
DOI 10.1212/WNL.0000000000007978

This information is current as of August 19, 2019

Updated Information & Services
including high resolution figures, can be found at:
http://n.neurology.org/content/93/8/e827.full

References
This article cites 2 articles, 0 of which you can access for free at:
http://n.neurology.org/content/93/8/e827.full#ref-list-1

Subspecialty Collections
This article, along with others on similar topics, appears in the following collection(s):
All Genetics
http://n.neurology.org/cgi/collection/all_genetics
All Headache
http://n.neurology.org/cgi/collection/all_headache
CT
http://n.neurology.org/cgi/collection/ct

Permissions & Licensing
Information about reproducing this article in parts (figures, tables) or in its entirety can be found online at:
http://www.neurology.org/about/about_the_journal#permissions

Reprints
Information about ordering reprints can be found online:
http://n.neurology.org/subscribers/advertise