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**Neurology Publish Ahead of Print**

**DOI: 10.1212/WNL.000000000206760**

**Teaching Neurolmage: Ictal Pouting Associated With Focal Cortical Dysplasia and Frontal Seizures on Stereotactic Depth Electrode EEG**

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**Equal Author Contribution:**

All authors contributed equally to this work.

**Contributions:**

Paula Marques: Drafting/revision of the manuscript for content, including medical writing for content; Major role in the acquisition of data; Study concept or design

Richard Wennberg: Drafting/revision of the manuscript for content, including medical writing for content; Analysis or interpretation of data

Danielle M. Andrade: Drafting/revision of the manuscript for content, including medical writing for content; Analysis or interpretation of data

**Figure Count:**

2

**Table Count:**

0

**Search Terms:**

[ 60 ] All Epilepsy/Seizures, [ 62 ] EEG, [ 63 ] Epilepsy monitoring, [ 65 ] Intracranial electrodes, [ 70 ] Epileptogenic zone

**Acknowledgment:**

The authors acknowledge the contribution of Dr. Taufik Valiante to this work.

**Study Funding:**

The authors report no targeted funding

**Disclosures:**

The authors report no disclosures related to this article.

**Preprint DOI:**

**Received Date:**

2022-06-28

**Accepted Date:**

2022-11-16

**Handling Editor Statement:**

Submitted and externally peer reviewed. The handling editor was Roy Strowd III, MD, Med, MS.

A 65-year-old man presented with chronic drug-resistant epilepsy. EEG-video monitoring showed seizures manifesting with ictal pouting or the “chapeau de gendarme” sign. MRI demonstrated focal cortical dysplasia in the right frontal lobe (Figure 1A). Stereotactic depth electrode EEG (stereoEEG) showed seizures originating within a cortical sulcus of the right caudal middle frontal gyrus (Figure 1, B–D, Figure 2). The patient became seizure-free after resection of the seizure onset zone and surrounding area of cortical dysplasia and remains so 9 months after surgery. Ictal pouting has been described as a sign of seizures originating in the frontal lobe, especially in the anterior cingulate<sup>1</sup> or anterior insular cortices<sup>2</sup>, areas uninvolved in our patient’s seizures. Awareness that other frontal lobe areas are part of a common network underlying ictal pouting may be important for interpretation of neuroimaging modalities such as ictal SPECT, PET and MEG, and for stereoEEG planning, especially in MRI negative cases.

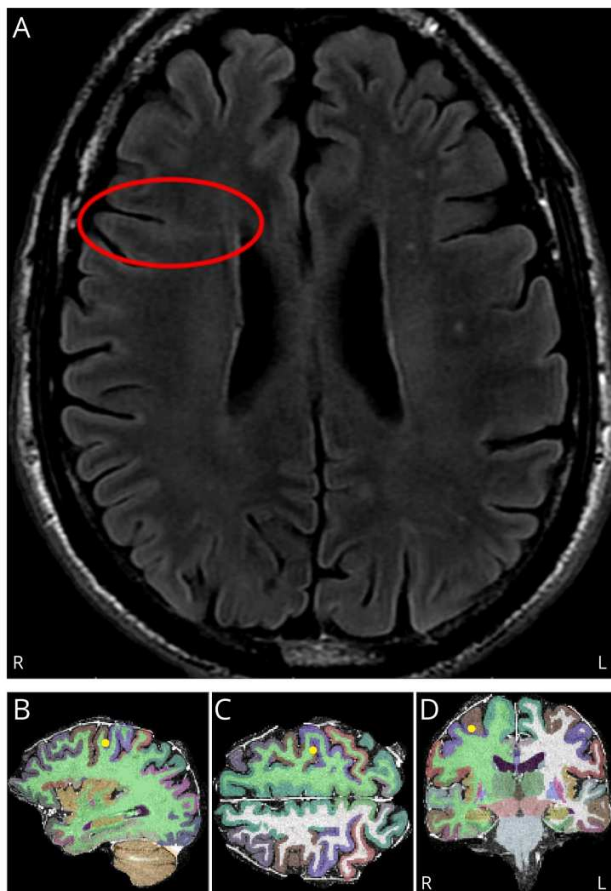
<http://links.lww.com/WNL/C553>

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Figure legends:

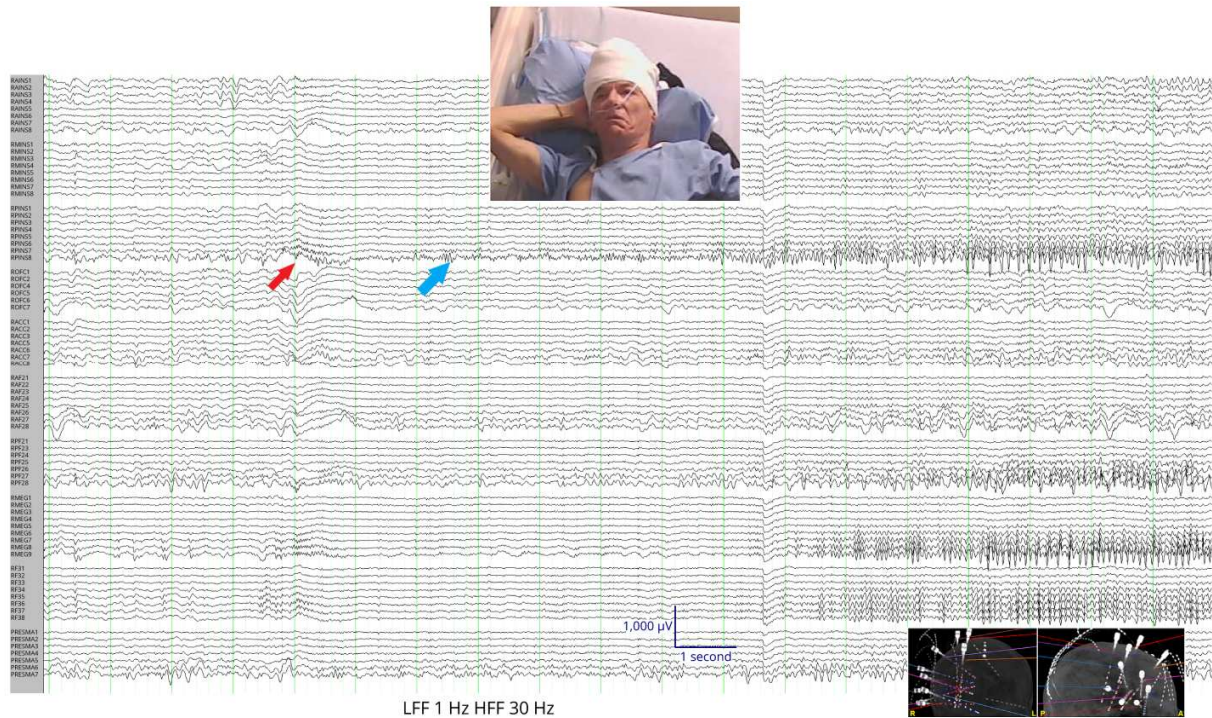
**Figure 1: Linear hyperintensity in right frontal lobe extending from cortical surface to frontal horn of right lateral ventricle**

Post-surgical pathology confirmed area of focal cortical dysplasia type II (A). Right caudal middle frontal gyrus localization of depth electrode contact RPINS8, marking seizure onset zone-sagittal (B), axial (C) and coronal (D) planes.



## Figure 2: VideoEEG findings

StereoEEG showing ictal onset (red arrow) as rhythmic low amplitude beta frequency activity maximal at contact RPINS8-right caudal middle frontal gyrus (cf. Figure 1, B–D), evolving in amplitude and frequency during seizure progression. Clinically, the patient showed ictal pouting or “chapeau de gendarme” (top inset) two seconds after seizure onset (blue arrow).



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*Neurology* published online December 20, 2022

DOI 10.1212/WNL.0000000000206760

**This information is current as of December 20, 2022**

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