Teaching NeuroImages: Human Encephalitis Caused by Pseudorabies Virus Infection

Author(s):
Hanwei Wang, MD\textsuperscript{1,2}; Linlan Zeng, MD\textsuperscript{1,2}; Wei Li, MD, Ph.D\textsuperscript{3}; Shunan Wang, MD, Ph.D\textsuperscript{1,2}

Corresponding Author:
Shunan Wang, wangshunan@tmmu.edu.cn

Affiliation Information for All Authors: 1. Department of Radiology, Daping Hospital, Army Medical University, Chongqing, China; 2. Chongqing Clinical Research Centre of Imaging and Nuclear Medicine, Chongqing, China; 3. Department of Neurology, Daping Hospital, Army Medical University, Chongqing, China

Equal Author Contribution:
Wei Li and Shunan Wang contributed equally to this article.

Contributions:
Hanwei Wang: Drafting/revision of the manuscript for content, including medical writing for content
Linlan Zeng: Major role in the acquisition of data
Wei Li: Drafting/revision of the manuscript for content, including medical writing for content
Shunan Wang: Drafting/revision of the manuscript for content, including medical writing for content

\textit{Neurology®} Published Ahead of Print articles have been peer reviewed and accepted for publication. This manuscript will be published in its final form after copyediting, page composition, and review of proofs. Errors that could affect the content may be corrected during these processes.
A 51-year-old woman presented with fever and loss of consciousness for 4 days. Images showed symmetrical lesions in bilateral cortex, limbic and basal ganglia (Figure). CSF analysis suggested viral infection. Next-generation sequencing (NGS) identified 349 unique sequence reads for pseudorabies virus (PRV). She was diagnosed with PRV encephalitis. Epidemiological survey revealed she was a pork dealer. PRV also called Suid herpesvirus-1 primarily infects swine. It’s reported that PRV can cause human infection through infected swine or pork. This case suggests unexplained severe encephalitis with similar MRI and a history of relevant exposure should consider the possibility of PRV infection.
References:

Figure. MRI feature of human PRV encephalitis
FLAIR (A-C) showed symmetrical hyperintensity in bilateral frontal, temporal, insula cortex (white arrow), hippocampus (blue arrow) and basal ganglia regions (red arrow) with restricted diffusion on DWI (D). T1WI with contrast demonstrated linear leptomeningeal enhancement (E). Follow-up images displayed improvement after 12 days combination antiviral and symptomatic supportive therapy (F).
Teaching NeuroImages: Human Encephalitis Caused by Pseudorabies Virus Infection
Hanwei Wang, Linlan Zeng, Wei Li, et al.
Neurology published online June 3, 2022
DOI 10.1212/WNL.0000000000200882

This information is current as of June 3, 2022