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A summary of recently published articles in the *Neurology*[®] Resident & Fellow Section

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April 3, 2018 issue

Neurologic care in lower- and middle-income countries is an increasing focus for the field and training of its next generation. The International Issues article features a guide for trainees seeking information on predeparture, funding, and postdeparture advice for global health rotations. The Clinical Reasoning and Teaching Image articles review the workup and management of reversible cerebral vasoconstriction syndrome, ataxia, and new-onset clonus in the setting of fever and confusion.

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Clinical Reasoning: A 53-year-old woman with headache and altered mental status

This is a case of reversible cerebral vasoconstriction syndrome (RCVS) that emphasizes the importance of generating a differential diagnosis for thunderclap headache. The importance of ruling out RCVS mimickers, such as primary angiitis of the CNS and infectious vasculopathy, is discussed. Utilization of diagnostic criteria to inform therapeutic decision-making was demonstrated in this case.

Page [e1267](#)

International Issues: A guide to US academic global health programs in neurology

Global health activities offer US neurology trainees opportunities to expand their clinical and research knowledge and skills, develop an informed appreciation of global health disparities, and interact with clinicians and researchers in low- and middle-income countries. The discipline of global health is evolving, and the opportunities for training abroad are likely to grow.

Page [662](#)

Teaching NeuroImages: Autosomal recessive spastic ataxia of Charlevoix-Saguenay: Typical MRI findings

A 9-year-old boy presented with a slowly progressive spastic ataxic syndrome. Sensorimotor polyneuropathy was detected on nerve conduction studies. MRI was highly suggestive of autosomal recessive spastic ataxia of Charlevoix-Saguenay.

Page [e1271](#)

Teaching Video NeuroImages: Sustained clonus of the upper extremity

An 80-year-old man with a history of renal transplant, on tacrolimus and prednisone, presented with confusion and fever. Brain MRI demonstrated leptomeningeal enhancement, and lumbar puncture revealed a mixed pleocytosis. Varicella zoster was identified in the CSF by PCR.

Page [e1273](#)

April 10, 2018 issue

Neurophysiology is a foundational aspect of neurology residency. In this issue, the Education Research article provides a window into program directors' and residents' current perception of neurophysiology training today. Potential barriers to training are highlighted and opportunities for improvement are discussed. The importance of a screening skin examination is highlighted in the Teaching NeuroImages and Clinical Reasoning case. Two patients present with cutaneous manifestation of underlying, life-threatening neurologic diseases. The clinical reasoning case presents a rare cause of neurologic symptoms in a patient with a gangrenous foot.

Clinical Reasoning: A 30-year man with acute paraplegia and left foot gangrene

A 30-year-old man presented with acute onset of lower back and leg pains followed by appearance of weakness in his legs. The weakness progressed over 1 hour to complete inability to move his legs in the bed. He also developed incontinence of urine and stools. The approach to a patient with these rapidly evolving symptoms is discussed.

[Page e1355](#)

Education Research: The current state of neurophysiology education in selected neurology residency programs

Prior research has illustrated there is a knowledge gap in neurology residents' neurophysiology education (EEG and EMG) and this study seeks to understand whether this is still an issue and to recognize the barriers in order to create solutions and improve education.

[Page 708](#)

Teaching NeuroImages: Varicella-zoster virus–related hemorrhagic encephalomyelitis

A 79-year-old woman with diabetes presented with confusion, fever, rigors, and red blistering rash over right S1-2 dermatomes. Over 2 weeks, paraplegia and leg numbness developed, worst on left. MRI demonstrated hemorrhagic encephalomyelitis. CSF showed 256 white blood cells (43% neutrophils), 269 red blood cells, 322 mg/dL protein, and positive varicella-zoster virus DNA.

[Page e1360](#)

Teaching NeuroImages: A cutaneous vascular malformation hides giant cerebral aneurysms

A 64-year-old man acutely developed right hemianopsia. Brain MRI showed an ischemic stroke in the left occipital lobe. Angio-CT revealed giant aneurysms of the left vertebral and internal carotid arteries; the left subclavian artery and the left jugular vein presented abnormal dilation.

[Page e1362](#)

April 17, 2018 issue

This issue features a series of Clinical Reasoning and Teaching NeuroImages that reinforce the importance of associated findings. The Clinical Reasoning cases highlight the importance of an accurate medication list and attention to the differential of a peripheral leukocytosis when considering a new neurologic presentation. In the Teaching NeuroImages, we witness a rare dermatologic complication of Wallenberg infarct and the typical EEG pattern in Creutzfeldt-Jakob disease.

Clinical Reasoning: A 56-year-old woman with acute vertigo and diplopia

This is an illustrative case of varicella-zoster virus vasculopathy as a complication of bortezomib use. This case is informative for neurology trainees as it highlights 3 teaching points.

[Page 748](#)

Clinical Reasoning: A young woman with symmetric weakness and behavioral disturbance

A 19-year-old woman presented with altered mental status and progressive quadriparesis. One week prior to admission, she experienced headaches and behavior changes including social withdrawal and a fixation on electronics.

[Page e1442](#)

Teaching NeuroImages: Facial ulceration in stroke: An unusual and lesser-known complication described by Wallenberg

A 50-year-old woman with a history of lateral medullary stroke 3 years ago presented with a 7-month history of persistent itch with constant picking and a nonhealing ulcer on the left side of her face. Examination revealed anesthesia over the V2 distribution of the trigeminal nerve.

[Page e1448](#)

Teaching NeuroImages: DWI and EEG findings in Creutzfeldt-Jakob disease

A 62-year-old woman, previously healthy, presented with 3 weeks of progressive short-term memory loss, dyscalculia, dysgraphia, appetite loss, and frequent episodic left arm dystonic posturing and eyebrow elevation. On examination, she also had finger agnosia, dysarthria, agraphesthesia, and astereognosis bilaterally, with myoclonus, ideomotor apraxia (left worse), and wide-based gait.

[Page e1450](#)

April 24, 2018 issue

Mass-like lesions on MRI of the brain are commonly encountered. In this issue, the Clinical Reasoning and Pearls & Oysters articles discuss important and less common causes of this neuroimaging finding. The importance of imaging in patients with ischemic strokes is emphasized in the Teaching NeuroImages case of a 52-year-old with an middle cerebral artery infarct. For an instructive video of the wall-eyed bilateral internuclear ophthalmoplegia syndrome demonstrating wall-eyed bilateral internuclear ophthalmoplegia, check out the Teaching Video NeuroImage.

Clinical Reasoning: A 30-year-old man with headache and sleep disturbance

This article describes a 30-year-old man who initially presented with obstructive hydrocephalus secondary to a diencephalic mass lesion. It further discusses the differential diagnosis and diagnostic approach as his symptoms evolved over time, allowing the reader to work through the case in a logical sequence and learn about how to approach this challenging case.

[Page e1538](#)

Pearls & Oysters: The critical role of histopathology in diagnosing cancer-associated necrotizing CNS vasculitis

Typically, new brain lesions in a patient with cancer are concerning for CNS metastasis until proven otherwise. However, atypical brain lesions necessitate a broader differential diagnosis and challenge neurologists and oncologists. In these cases, providers must weigh the benefits of early treatment with the risks of an invasive confirmatory biopsy. This article presents 2 cases of atypical brain lesions where histopathology was critical in establishing the appropriate diagnosis of CNS vasculitis and not brain metastasis.

[Page 805](#)

Teaching NeuroImages: Multimodality imaging of carotid web

A 52-year-old woman without cardiovascular risk factors presented with an acute middle cerebral artery infarction. An ipsilateral thin, smooth, membrane-like intraluminal filling defect along the posterior wall of the internal carotid bulb compatible with carotid web was observed on Doppler ultrasound, CT, and magnetic resonance angiography.

[Page e1544](#)

Teaching Video NeuroImages: Pulsatile proptosis and wall-eyed bilateral internuclear ophthalmoplegia

A 65-year-old man with a history of hypertension presented with double vision. Examination revealed wall-eyed bilateral internuclear ophthalmoplegia and nonsymptomatic, pulse-synchronous, pulsatile proptosis of the left eye.

[Page e1545](#)

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Resident & Fellow Rounds

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