



## Abstracts

Papers appearing in the January 2021 issue

### Eastern Equine Encephalitis and Use of IV Immunoglobulin Therapy and High-Dose Steroids

**Objective** To determine the clinical presentation and patient outcomes after treatment with IV immunoglobulin (IVIG), high-dose steroids, or standard of care alone in Eastern equine encephalitis (EEE), a mosquito-borne viral infection with significant neurologic morbidity and mortality.

**Methods** A retrospective observational study of patients admitted to 2 tertiary academic medical centers in Boston, MA, with EEE from 2005 to 2019.

**Results** Of 17 patients (median [IQR] age, 63 [36–70] years; 10 (59%) male, and 16 (94%) White race), 17 patients had fever (100%), 15 had encephalopathy (88%), and 12 had headache (71%). Eleven of 14 patients with CSF cell count differential had a neutrophil predominance (mean = 60.6% of white blood cells) with an elevated protein level (median [IQR], 100 mg/dL [75–145]). Affected neuroanatomic regions included the basal ganglia (n = 9/17), thalamus (n = 7/17), and mesial temporal lobe (n = 7/17). A total of 11 patients (65%) received IVIG; 8 (47%) received steroids. Of the patients who received IVIG, increased time from hospital admission to IVIG administration correlated with worse long-term disability as assessed by the modified Rankin Scale (mRS) ( $r = 0.72$ ,  $p = 0.02$ ); steroid use was not associated with the mRS score. The mortality was 12%.

**Conclusions** Clinicians should suspect EEE in immunocompetent patients with early subcortical neuroimaging abnormalities and CSF neutrophilic predominance. This study suggests a lower mortality than previously reported, but a high morbidity rate in EEE. IVIG as an adjunctive to standard of care may be considered early during hospitalization.

[NPub.org/NN/9618a](https://pubmed.ncbi.nlm.nih.gov/36188188/)

### Time Course of Dementia Following Sepsis in German Health Claims Data

**Objective** We evaluated the short-, medium-, and long-term effects of sepsis on dementia incidence using German health claims data.

**Methods** A total of 161,567 patients (65 years or older) were followed from 2004 to 2015 at quarterly intervals. Time since sepsis was categorized into 0 (the effective quarter of sepsis diagnosis), 1–8, and  $\geq 9$  quarters since the latest diagnosis of sepsis, taking into account admission to intensive care unit and controlling for delirium, surgery, age, sex, and comorbidities. Incident dementia was defined for all persons who did not have a validated dementia diagnosis in 2004 and 2005 and who received a first-time, valid diagnosis between 2006 and 2015.

**Results** During the quarter of sepsis diagnosis, patients not admitted to intensive care had a 3.14-fold (95% CI 2.83–3.49) increased risk, and those with intensive care stay had a 2.22-fold (95% CI: 1.83–2.70) increased risk of receiving an incident dementia diagnosis compared with patients without sepsis. The impact of sepsis on incident dementia remained in the following 2 years, remitting only thereafter.

**Conclusions** For sepsis survivors, medium-term dementia risk remains elevated, whereas long-term risk may reach the level of those without sepsis, even after controlling for delirium. These findings encourage identifying modifiable components of hospital and rehabilitation care.

[NPub.org/NN/9618b](https://pubmed.ncbi.nlm.nih.gov/36188189/)



## Most-Read Articles

As of March 8, 2021

### Clinical Approach to the Diagnosis of Autoimmune Encephalitis in the Pediatric Patient

T. Cellucci, H. Van Mater, F. Graus, et al. 2020;7:e663. doi.org/10.1212/NXI.0000000000000663

### Anti-IgLON5 Disease: A New Bulbar-Onset Motor Neuron Mimic Syndrome

J. Werner, I. Jelcic, E.I. Schwarz, et al. 2021;8:e962. doi.org/10.1212/NXI.0000000000000962

### Guillain-Barré Syndrome Outbreak in Peru 2019 Associated With *Campylobacter jejuni* Infection

A.P. Ramos, S.E. Leonhard, S.K. Halstead, et al. 2021;8:e952. doi.org/10.1212/NXI.0000000000000952

### A Young Man With Numbness in Arms and Legs: From the National Multiple Sclerosis Society Case Conference Proceedings

A.R. Romeo, R.P. Lisak, E. Meltzer, et al. 2018;5:e509. doi.org/10.1212/NXI.0000000000000509

### Incidence and Impact of COVID-19 in MS: A Survey From a Barcelona MS Unit

M. Sepúlveda, S. Llufriu, E. Martínez-Hernández, et al. 2021;8:e954. doi.org/10.1212/NXI.0000000000000954

# Neurology<sup>®</sup>

What's Happening in *Neurology*<sup>®</sup> *Neuroimmunology & Neuroinflammation*  
*Neurology* 2021;96;847  
DOI 10.1212/WNL.00000000000011859

**This information is current as of May 3, 2021**

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