Zekerediou has received intellectual property interests from a discovery or technology relating to health care. Dr. Zekerediou has received intellectual property interests from a discovery or technology relating to health care.

Characterization of Cardiac Bradycardia Associated With LGI1-IgG Autoimmune Encephalitis

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Objective
To evaluate and characterize cardiac arrhythmias associated with LGI1-IgG (Leucine-rich glioma inactivated 1–IgG) autoimmune encephalitis (AE).

Background
AE is increasingly identified as a potentially treatable cause of encephalitis. LGI1-IgG is one of the most common pathogenic neural specific autoantibodies associated with AE in adults. Prior cases of bradycardia and sudden death have been reported in LGI1-IgG AE, however, larger cohort studies are lacking.

Design/Methods
In this retrospective descriptive study, we identified Mayo Clinic patients (May 1, 2008–December 31, 2020) with LGI1-IgG AE who had electrocardiogram proven bradycardia during the initial presentation. Inclusion criteria were 1) LGI1-IgG positivity with a consistent clinical syndrome; 2) electrocardiographic evidence of bradycardia; and 3) sufficient clinical details. We excluded patients with alternate reason for bradycardias. We collected demographic/clinical data including details of bradycardia (severity, duration, treatments), and neurologic and cardiac outcomes.

Results
We found that patients with LGI1-IgG AE had bradycardia at a frequency of 8% during the initial presentation. The bradycardia was often asymptomatic (6/11, 55%); however, the episode was severe with one patient requiring a pacemaker. Outcome was also generally favorable with the majority (8/11, 73%) having full resolution without further cardiac intervention. Lastly, we found that mouse and human cardiac tissues express LGI1 (mRNA and protein), suggesting that LGI1-IgG may influence cardiac tissue itself.

Conclusions
LGI1-IgG AE can be rarely associated with bradycardias. Although the disease course is mostly favorable, some cases may require pacemaker placement to avoid devastating outcomes.

Are Insulin Mimetics Protective Against Comorbidity in Patients With Neuro-Autoimmune Disease?

Mohsen Ahmed, Afaq Ahmed, Ronak Trivedi, Muhammed Ors, Nabeel Ahmed, Mustafa Jaffry, Nizar Souayah

Objective
To investigate the neuroprotective potential of insulin mimetics (IM) in patients with neuro autoimmune disease (NAD) and high risk comorbidities.

Background
IM are used to treat patients with diabetes mellitus (DM) and have been shown to protect against progressive neurological damage. Despite their neuroprotective benefits, the extent of their neuroprotection in patients with NAD has not been completely characterized.

Design/Methods
A retrospective analysis on 34464 patients hospitalized at a tertiary care center in a major metropolitan area was conducted. 168 patients were taking IM medications. 7848 patients were taking medicine other than IM for their DM (nIM). 7690 patients were taking insulin without IM medications. 26448 patients were not on any DM medication (nDM). The prevalence of NAD was 0.6%, 0.52%, 0.53%, 0.56% among patients with neuro autoimmune disease (NAD) and high risk comorbidities defined as those with either heart failure, chronic kidney disease, stroke, or encephalopathy.

Results
The prevalence of NAD was 0.6%, 0.52%, 0.53%, 0.56% among patients in the IM, nI, insulin, and nDM groups respectively (p > 0.05). 19.5% of NAD and 23.6% of those without NAD had high risk comorbidities (p > 0.05). Among those with autoimmune disease, 31% of those taking any diabetic medication and 16% of nDM had high risk comorbidities (p > 0.05). The prevalence of DMNR was 10% and 8% in IM and nDM groups respectively (p > 0.05).

Conclusions
These results suggest that IM medications may benefit patients with NAD against additional comorbidity as those without NAD and DM are expected
to have less high risk disease. However, more studies are needed to determine whether IM medications play a role in neuro-autoimmune disease progression and mortality. A limitation of this study is that data was collected from a single institution and does not represent the general population.

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Do Those With Neuro-Autoimmune Disease Carry a Higher Burden of Disease?
Mohsen Ahmed, Afaaq Ahmed, Ronak Trivedi, Muhammed Ors, Nabeel Ahmed, Nizar Souayah

Objective
To investigate the burden of disease and their prognosis amongst patients with neuro-autoimmune disease (NAD).

Background
NAD has been shown to increase overall mortality and early death among patients. However, the overall burden of disease in NAD patients has not yet been fully characterized.

Design/Methods
A retrospective analysis on 34464 patients hospitalized at a tertiary care center in a major metropolitan area was conducted. The outcomes compared included the prevalence of comorbidities, high risk comorbidities, and rheumatoid arthritis and/or lupus (RAL) among patients with and without neuro-autoimmune disease (NAD and nNAD). The outcomes of the initial disposition after discharge, length of hospital stay, ICU admission, and death among patients with comorbidities and with or without neuro-autoimmune disease (cNAD and ncNAD) was also determined.

Results
There is no significant difference in the level of comorbidity (53% vs 54%) or high risk comorbidities (19% vs 24%) between patients in NAD and nNAD, respectively (p > 0.05). 4.7% of NAD and 2.2% of nNAD patients had RAL (p < 0.02). The mortality was 5% in cNAD and 4.3% in ncNAD (p > 0.05). ICU admissions was 16% in cNAD and 20% in ncNAD (p > 0.05). 42% of patients in cNAD and 72% in ncNAD were discharged home (p < 0.0001). The average length of stay was 10 and 6.7 days for patients in cNAD and ncNAD, respectively (p < 0.01).

Conclusions
These results suggest that NAD may not affect the overall burden of disease in patients but may increase the prevalence of RAL. Furthermore, comorbidity status may correlate with length of stay and disposition in patients with NAD.

Disclosure: Mr. Ahmed has nothing to disclose. Mr. Ahmed has nothing to disclose. Mr. Trivedi has nothing to disclose. Mr. Ors has nothing to disclose. Mr. Ahmed has nothing to disclose. Dr. Souayah has received publishing royalties from a publication relating to health care.

Application of APE2 and RITE2 Scores in a Stanford Cohort of Autoimmune Encephalitis Patients
Trevor Rafferty, Anna Koeppen-Babcock, Srikanth Muppidi, Scheherazade Le

Objective
The goal of our study was to apply the APE2 and RITE2 scores in a cohort of autoimmune encephalitis (AE) patients at Stanford with immune-mediated seizures.

Background
Early identification and immunotherapy in those with immune-mediated seizures are associated with better neurologic outcomes and reduction of seizures. There have been previously published scoring systems to identify antibodies (Ab) and responsiveness to immunotherapy that were applied to our cohort.

Design/Methods
This was a retrospective study at Stanford University Hospital with chart review of the electronic medical record between 2008-2021. Patients

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