Sjogren's syndrome include glucocorticoids, IVIG, or immunomodulatory agents such as rituximab. However, these treatments are of uncertain effectiveness and can have variable responses. We present a case of Sjogren's-related small fiber neuropathy that had complete symptom resolution with rituximab.

Background

A 54 year old female presented to the clinic with neuropathic pain starting in her legs, which ascended to her trunk and arms after one week. She also reported five years of dry eyes. On initial presentation, physical exam showed normal sensation but a diagnosis of small fiber neuropathy was made by skin biopsy. The neuropathy was attributed to seronegative Sjogren's syndrome diagnosed by salivary gland biopsy. She had previously failed treatment with prednisone 40 mg daily and IVIG. After presentation to the clinic, she was started on rituximab every 4 months. A log of symptoms kept by the patient clearly demonstrated a reduction in symptoms following each Rituxan dose. She achieved complete symptom resolution after 19 months with Rituxan 10 mg/mL every 4 months.

Design/Methods

NA.

Results

NA.

Conclusions

In summary, our patient responded dramatically to rituximab after failing treatment with glucocorticoids and IVIG. Treatment of Sjogren's-related small fiber neuropathy has consisted of empiric trials of glucocorticoids and IVIG, although response to these treatments has been variable. Rituximab has been useful in Sjogren's-related neuropathy, although it remains unclear whether it is effective in small fiber neuropathy. Our case illustrates that patients with Sjogren's-related small fiber neuropathy, even if seronegative, may respond dramatically to rituximab. We concluded that rituximab can be considered in treatment of this condition, especially in patients who don't respond to first line immunotherapies.

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The First Randomized, Double-Blind, Placebo-Controlled Phase 2 Study to Evaluate the Efficacy and Safety of an FcRn Inhibitor, Rozanolixizumab, in Patients With Leucine-Rich Gliomainactivated 1 Autoimmune Encephalitis

Divyanshu Dubey, Maarten J Titulaer, Anjana Dhar Koul, Stephen Yates, Sarosh R Irani

Objective

To evaluate efficacy and safety of rozanolixizumab for treatment of leucine-rich glioma inactivated 1 (LGI1) autoimmune encephalitis (AIE).

Background

LGI1 AIE is a clinically homogeneous syndrome mediated by autoantibodies, predominantly of the IgG4 subclass, characterized by seizures, cognitive impairment and neuropsychiatric symptoms. No approved treatment options are available, and current treatment paradigms are variable. Rozanolixizumab is a fully humanized monoclonal antibody that can be delivered subcutaneously and inhibits the IgG binding region of the neonatal Fc receptor (FcRn), reducing the concentration of circulating IgG-antibodies, including pathogenic IgG-autoantibodies.

Design/Methods

This multicenter, randomized, double-blind, placebo-controlled LEGIONE study (NCT04875975) is the first Phase 2 study to evaluate efficacy and safety of FcRn inhibition as treatment for LGI1 AIE. The study is recruiting adults with serum LGI1-autoantibodies, considered for intravenous methylprednisolone treatment, with new-onset disease (0-12 months prior to study entry). At screening, patients with prior diagnosis of epilepsy unrelated to LGI1 AIE, IgG level =5.5 g/L, clinically relevant infection or history of neoplastic disease will be excluded. Alongside a typical steroid taper, ~68 patients will be randomized 1:1 to subcutaneous infusion of rozanolixizumab or placebo for 24 weeks, stratified by time from disease onset and cognitive function (measured by the Repeatable Battery for the Assessment of Neuropsychological Status) at randomization. Primary endpoint is measured by seizure freedom (28 consecutive days of no seizures maintained until the end of the treatment period). Secondary endpoints are change in cognitive function, use of rescue medication, time to onset of seizure freedom and safety and tolerability of rozanolixizumab. Exploratory pharmacokinetic/pharmacodynamic and biomarker-based endpoints are anticipated.

Results

Study background, rationale and design will be presented.

Conclusions

The LEGIONE study is the first randomized, double-blind, placebo-controlled Phase 2 study to evaluate the efficacy and safety of an FcRn inhibitor, rozanolixizumab, in patients with leucine-rich glioma-inactivated 1 autoimmune encephalitis and is enrolling patients.

Disclosure: The institution of Dr. Dubey has received personal compensation in the range of $500-$4,999 for serving as a Consultant for UCB. The institution of Dr. Dubey has received personal compensation in the range of $5,000-$9,999 for serving as a Consultant for Astellas. Dr. Dubey has received personal compensation in the range of $0-$499 for serving on a Speakers Bureau for AGRIMS. Dr. Dubey has received personal compensation in the range of $0-$499 for serving on a Speakers Bureau for Advances in Neurology. Dr. Dubey has received personal compensation in the range of $0-$499 for serving on a Speakers Bureau for Moffit Cancer Center. Dr. Dubey has received research support from Department of Defense. Dr. Dubey has received intellectual property interests from a discovery or technology relating to health care. Dr. Dubey has received intellectual property interests from a discovery or technology relating to health care. Dr. Dubey has received intellectual property interests from a discovery or technology relating to health care. The institution of Dr. Titulaer has received research support from Dutch Epilepsy Foundations (NEF 14-18 and 19-08). The institution of Dr. Titulaer has received research support from CSL Behring. The institution of Dr. Titulaer has received research support from UCB. The institution of Dr. Titulaer has received research support from Netherlands Organisation for Scientific Research (ZonMW, Memorabel initiative and E-RARE UltraAIE). The institution of Dr. Titulaer has received research support from Horizon Therapeutics. The institution of Dr. Titulaer has received research support from Dioraphte (charity). The institution of Dr. Titulaer has received research support from Guidepoint Global LLC. Dr. Koul has stock in UCB. An immediate family member of Dr. Koul has received intellectual property interests from a discovery or technology relating to health care. An immediate family member of Dr. Koul has received personal compensation in the range of $0-$499 for serving as a Scientific advisory board member with CSIR. Dr. Yates has received personal compensation for serving as an employee of UCB Biosciences, Inc. Dr. Yates has stock in UCB Biosciences, Inc. Dr. Irani has received personal compensation in the range of $500-$4,999 for serving as a Consultant for Immunovant. Dr. Irani has received personal compensation in the range of $5,000-$9,999 for serving as a

Consultant for UCB. Dr. Irani has received personal compensation in the range of $5,000-$9,999 for serving on a Scientific Advisory or Data Safety Monitoring board for UCB. Dr. Irani has received personal compensation in the range of $500-$4,999 for serving as an Editor, Associate Editor, or Editorial Advisory Board Member for Brain. Dr. Irani has received personal compensation in the range of $10,000-$49,999 for serving as an Expert Witness for kinmi. The institution of Dr. Irani has received research support from UCB / CSL. Dr. Irani has received intellectual property interests from a discovery or technology relating to health care.

Do Statins Have a Protective Effect Against Neuro-Autoimmune Disease and Comorbidity?

Mohsen Ahmed, Afaaq Ahmed, Muhammed Ors, Ronak Trivedi, Nabeel Ahmed, Nizar Souayah

Objective

To investigate the neuroprotective potential of statins (ST) against neuro-autoimmune disease (NAD) in patients, and risks of associated comorbidities.

Background

ST have been shown to provide neuroprotective benefits in patients with cardiovascular disease and related risk factors. However, the extent of neuroprotective potential of ST medications in patients with NAD has not been determined.

Design/Methods

A retrospective analysis on 34464 patients hospitalized at a tertiary care center in a major metropolitan area was conducted. 7527 patients were in the ST group, while 26937 patients were not taking any statins (nST). 190 patients had a NAD diagnosis and 10818 had diabetes mellitus (DM). 702 patients carried a diagnosis of diabetic neuropathy and/or diabetic retinopathy (DMNR). NAD patients were further categorized as those with or without ST medications (aST and anST). The outcomes compared included the prevalence of NAD, comorbidities, encephalopathy, and overall neurological complications.

Results

The prevalence of NAD was 0.39% and 0.60% in ST and nST, respectively ($p < 0.05$). 69% of aST and 27% of anST had DM ($p < 0.00001$). Patients in aST had a significantly higher amount of DMNR than those in anST (13.8%, 0.62%, $p < 0.0001$) and high risk comorbidity (45%, 15%, $p < 0.01$). There was no significant difference between aST and anST in the prevalence of encephalopathy (10%, 6%, $p > 0.05$) and overall neurological complications (17%, 14%, $p > 0.05$).

Conclusions

These results suggest that patients taking ST may be associated with a lower risk of NAD with no increase in overall neurological complications during hospitalization. Despite these findings, ST may be associated with an increased burden of disease and higher prevalence of progressive neuropathy.

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

Clinical Experience With Efgartigimod in Generalized Myasthenia Gravis: Results From a Case Series of US-Based Patients Participating in an Expanded Access Program

Sami Khella, Nancy Kuntz, Denis Ostrovskiy, Deborah Gelinas, Omar Rahman, Zabeen Mahuwala

Objective

To describe the efgartigimod treatment regimens and response among 6 US-based patients with generalized myasthenia gravis (gMG) enrolled in an Expanded Access Program (EAP).

Background

For some patients with gMG, available therapies do not provide sufficient symptom relief and can cause serious side effects. Efgartigimod, a human IgG1 antibody Fc-fragment (natural ligand of the neonatal crystalline fragment receptor [FcRn]), has increased affinity to FcRn vs endogenous IgG. Efgartigimod reduces IgG recycling and increases IgG degradation. Efgartigimod received FDA approval in 2021 for the treatment of gMG in adults who are anti-acetylcholine receptor (AChR) antibody positive.

Design/Methods

In the efgartigimod EAP (NCT04777734), gMG patients had access to open-label efgartigimod. Eligible patients (=18 y) met clinical criteria of the Myasthenia Gravis Foundation of America classifications II–IV and had a Myasthenia Gravis Activities of Daily Living (MG-ADL) score =5 points (>50% attributed to non-ocular symptoms). During the first two, fixed-treatment cycles, patients received 4 weekly infusions of efgartigimod 10 mg/kg. During the 4-week inter-treatment period, patients received their ongoing treatments and no efgartigimod infusions. Baseline demographic characteristics and safety data were collected. Treating physicians had the option to assess and track clinical function and burden of disease among treated patients.

Results

As of the cutoff date (Dec 17, 2021), 8 patients have been enrolled in the US; follow-up data are available for 6 (3 males and 3 females; median age 59 y). 83% (5/6) of patients received at least 2 treatment cycles and 4–5 infusions per cycle. Symptom improvements were noted. Four patients reported 6 AEs: fatigue (resolved), tachycardia and headache (both resolved), dyspnea and diplopia (both not resolved), and back spasms (status unknown).

Conclusions

We report on 6 patients with gMG who received efgartigimod as part of an EAP. Detailed patient narratives will be presented.

Disclosure: Dr. Khella has received personal compensation in the range of $5,000-$9,999 for serving as a Consultant for Ionis. Dr. Khella has received personal compensation in the range of $5,000-$9,999 for serving on a Scientific Advisory or Data Safety Monitoring board for Ionis. Dr. Khella has received personal compensation in the range of $5,000-$9,999 for serving on a Scientific Advisory or Data Safety Monitoring board for Pfizer. Dr. Khella has received personal compensation in the range of $5,000-$9,999 for serving on a Scientific Advisory or Data Safety Monitoring board for Alnylum. Dr. Khella has received personal compensation in the range of $500-$4,999 for serving on a Scientific Advisory or Data Safety Monitoring board for Eidos. Dr. Kuntz has received personal compensation in the range of $500-$4,999 for serving on a Scientific Advisory or Data Safety Monitoring board for Sarepta. Dr. Kuntz has received personal compensation in the range of $5,000-$9,999 for serving on a Scientific Advisory or Data Safety Monitoring board for Avexis. Dr. Kuntz has received personal compensation in the range of $5,000-$9,999 for serving on a Scientific Advisory or Data Safety Monitoring board for Biogen. Dr. Kuntz has received personal compensation in the range of $5,000-$9,999 for serving on a Scientific Advisory or Data Safety Monitoring board for Sarepta. Dr. Ostrovskiy has received personal compensation in the range of $500-$4,999 for serving on a Speakers Bureau for Argenix. Dr. Gelinas has received personal compensation for serving as an employee of argenx. Dr. Gelinas has stock in argenx. Mr. Rahman has received personal compensation for serving as an employee of argenx. Mr. Rahman has received stock or an ownership interest from argenx. The institution of Dr. Mahuwala has received research support from UCB. The institution of Dr. Mahuwala has received research support from Alexion. The institution of Dr. Mahuwala has received research support from argenex.

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