D.6

Changes in intravenous or subcutaneous immunoglobulin usage before and after efgartigimod initiation in patients with Myasthenia Gravis

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Background: While efgartigimod usage is expected to reduce immunoglobulin (IG) utilization, evidence in clinical practice is limited. Methods: In this retrospective cohort study, patients with gMG treated with efgartigimod for ≥1-year were identified from US medical/pharmacy claims data (April 2016-January 2024) and data from the My VYVGART Path patient support program (PSP). The number of IG courses during 1-year before and after efgartigimod initiation (index date) were evaluated. Patients with ≥6 annual IG courses were considered chronic IG users. Myasthenia Gravis Activities of Daily Living (MG-ADL) scores before and after index were obtained from the PSP where available. Descriptive statistics were used without adjustment for covariates. Results: 167 patients with ≥1 IG claim before index were included. Prior to efgartigimod initiation, the majority of patients (62%) received IG chronically. During the 1-year after index, the number of IG courses fell by 95% (pre: 1531, post: 75). 89% (n=149/167) of patients fully discontinued IG usage. Mean (SD) best-follow up MG-ADL scores were significantly reduced after index (8.0 [4.1] to 2.8 [2.1], $P<0.05$, n=73/167, 44%). Conclusions: Based on US claims, IG utilization was substantially reduced among patients who continued efgartigimod for ≥1-year, with patients demonstrating a favorable MG-ADL response.

D.7

Efgartigimod impact on I-RODS daily activity assessment in chronic inflammatory demyelinating polyneuropathy: post hoc analysis of Registrational ADHERE Study

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Background: Efgartigimod, a human immunoglobulin (Ig)G1 antibody Fc fragment, blocks the neonatal Fc receptor, reducing IgGs involved in chronic inflammatory demyelinating polyneuropathy (CIDP), a rare, progressive, immune-mediated disease that can lead to irreversible disability. The multi-stage, double-blinded, placebo-controlled ADHERE (NCT04281472) trial assessed efgartigimod PH20 SC in participants with CIDP. Methods: Participants with active CIDP received open-label, weekly efgartigimod PH20 SC 1000 mg during ≤12-week run-in (stage-A). Responders were randomized (1:1) to weekly efgartigimod or placebo for ≤48 weeks (stage-B). This posthoc analysis evaluated changes from run-in baseline (study enrollment) to stage-B last assessment and items of the Inflammatory Rasch-built Overall Disability Scale (I-RODS). Results: Of 322 participants who entered stage-A, 221 were randomized and treated in stage-B, and 191/221 had data for run-in baseline and post–stage-B timepoints. Mean (SE) I-RODS change at stage-B last assessment vs run-in baseline was 5.7 (1.88) and -4.9 (1.82) in participants randomized to efgartigimod and placebo, respectively. 37/97 (38.1%) and 24/92 (26.1%) participants randomized to efgartigimod and placebo, respectively, experienced ≥4-point improvements in I-RODS score. Efgartigimod-treated participants improved ≥1 point in I-RODS items of clinical interest. Conclusions: Participants who received efgartigimod in stage-B experienced improvements in I-RODS score from study enrollment to stage-B last assessment.

NEURORADIOLOGY (CSNR)

E.1

The role of the glymphatic system in the neurodegeneration associated to Multiple Sclerosis

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Background: Recent research highlights the glymphatic system's role in clearing waste from the central nervous system. Its dysfunction is linked to neurodegenerative diseases like Alzheimer's and Parkinson's, but its impact on multiple sclerosis (MS) remains unclear. This retrospective study examines glymphatic function in MS and its link to clinical disability using MRI. Methods: The study included 18 patients diagnosed with MS, comprising 3 with primary progressive MS and 15 with secondary progressive MS, along with 7 healthy control participants. All subjects underwent neurological evaluations and MRI assessments, which included high-resolution T1, T2, and diffusion-weighted imaging. Statistical comparisons between the groups were conducted using a two-sample t-test. Results: MS patients exhibited a reduced diffusion along the perivascular space index (DTI-ALPS) compared to healthy controls. Patients with primary progressive MS demonstrated lower DTI-ALPS values than those with secondary progressive MS. Lower DTI-ALPS was associated with a higher Expanded Disability Status Scale (EDSS) score, indicating a correlation between glymphatic system dysfunction and greater clinical disability in MS. Conclusions: The study suggests that glymphatic system dysfunction is present in MS and is inversely associated with the severity of disability. This impairment may contribute to the disease's pathological mechanisms.