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Introduction: Accelerated early CGMV loss occurs in interferon-treated RMS patients.
Methods: CGMV was quantified in randomized phase 3 (SUNBEAM–NCT02294058, RADIANCE–NCT02047734) trials comparing oral ozanimod 0.92 and 0.46mg/day with intramuscular interferon 30μg/week and an ongoing, open-label extension trial (DAYBREAK–NCT02576717) of ozanimod 0.92mg/day in RMS. MRI was performed at months 6 (SUNBEAM), 12 (RADIANCE/SUNBEAM), and 24 (RADIANCE), then every 12 months (DAYBREAK). CGMV was analyzed through DAYBREAK month 36.
Results: The rate of CGMV loss was greater ($P<0.001$) with interferon than ozanimod 0.92mg during SUNBEAM/RADIANCE: LS mean percentage change from baseline was -0.67% vs -0.02%, respectively, at month 6 and -1.04% vs -0.16% at month 12 in SUNBEAM, and -0.80% vs -0.13% at month 12 and -1.26% vs -0.53% at month 24 in RADIANCE. Switching from interferon to ozanimod reversed CGMV loss in year 1 of DAYBREAK. Thereafter, annualized rates of CGMV loss were similar among participants who switched from interferon and those continuously treated with ozanimod. Patients continuously treated with ozanimod lost less CGMV in DAYBREAK relative to RADIANCE/SUNBEAM baseline than patients initially treated with interferon.
Conclusion: Switching from interferon to ozanimod reversed CGMV loss. Earlier treatment with ozanimod led to less CGMV loss over 4–5 years, supporting early ozanimod use.
This abstract has been previously presented at AAN 2022 (American Academy of Neurology) - Apr 2-7, 2022 (Seattle, WA); April 24-26, 2022 (Virtual).

Funding
The SUNBEAM and RADIANCE studies were supported by Celgene International II.

Disclosures
CP: employee and shareholder of Bristol Myers Squibb. JKS: employee and shareholder of Bristol Myers Squibb. XM: received speaking honoraria and travel expenses for participation in scientific meetings, has been a steering committee member of clinical trials or participated in advisory boards of clinical trials in the past 3 years with Actelion, Alexion, Bayer, Biogen, Bristol Myers Squibb/Celgene, EMD Serono, EXCEMED, Genzyme, Hoffmann-La Roche, Immunic, Janssen Pharmaceuticals, MedDay, Merck, Mylan, MSIF, Nervgen, NMSS, Novartis, Roche, Sanofi-Genzyme, Teva Pharmaceuticals, and TG Therapeutics. BACC: personal compensation for consulting for Alexion, Atara, Autobahn, Avotres, Biogen, EMD Serono, Novartis, Sanofi, TG Therapeutics, and Therini, and received grant support from Genentech. LK: Institutional research support: steering committee, advisory board, consultancy fees: Actelion, Bayer HealthCare, Biogen, Bristol Myers Squibb, Genzyme, Janssen, Japan Tobacco, Merck, Novartis, Roche, Sanofi, Santhera, Shionogi, and TG therapeutics, speaker fees: Bayer HealthCare, Biogen, Merck, Novartis, Roche, and Sanofi; support of educational activities: Allergan, Bayer HealthCare, Biogen, CSL Behring, Desitin, Genzyme, Merck, Novartis, Roche, Pfizer, Sanofi, Shire, and Teva; license fees for Neurostatus products; and grants: Bayer HealthCare, Biogen, European Union, Innosuisse, Merck, Novartis, Roche, Swiss MS Society, and Swiss National Research Foundation. GC: compensation for consulting and/or speaking activities from Almirall, Biogen, Celgene, EXCEMED, Forward Pharma, Genzyme, Merck, Novartis, Roche, Sanofi, and Teva. HPH: personal fees for consulting, serving on steering committees, and speaking from Bayer Healthcare, Biogen, Celgene, GeNeuro, Genzyme, Merck, MedImmune, Novartis, Octapharma, Roche, Sanofi, and Teva. CYC: employee and shareholder of Bristol Myers Squibb. DS: employee and shareholder of Bristol Myers Squibb. JAC: personal compensation for consulting for Biogen, Bristol Myers Squibb, Convelo, Genentech, Janssen, NervGen, Novartis, and PSI; and serving as an Editor of Multiple Sclerosis Journal. DLA: personal fees for consulting and/or grants from Albert Charitable Trust, Alexion Pharma, Biogen, Celgene, Frequency Therapeutics, Genentech, Med-Ex Learning, Merck Serono, Novartis, Population Council, Roche, and Sanofi-Aventis; grants from Biogen, Immunotec, and Novartis; and an equity interest in NeuroRx.

P39: Sustained attention during prolonged walking in persons with multiple sclerosis

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Background: Growing evidence demonstrates that walking requires cognitive control. It is also known that there is a decrease in walking speed during long-distance walking in persons with multiple sclerosis (pwMS). However, it is unknown whether pwMS can retain sustained attention while performing

simultaneous motor tasks (i.e., walking) in long-distance tests. This study investigated cognitive attention during prolonged walking in pwMS and compared it with healthy controls (HC).
Methods: Thirty-seven pwMS and 14 age-gender matched HC performed the 6-Minute Walk Test (6MWT) with an auditory vigilance task. Participants were provided a letter every 2.5s and were instructed to say "yes" as fast as possible when they heard the two selected letters through the application to assess vigilance. The number of errors, average reaction time, and distance per minute were calculated.
Results: A significant time and group*time interaction effect were found for reactions times, represented by a significant increase in pwMS during the 6 mins. Time or group*time interaction was not found for the number of errors. There was a minute-by-minute decrease in walking distance in both groups, but there was no group*time interaction.
Conclusion: Our findings suggest that sustained attention deteriorated overtime during the six minutes of walking in pwMS.

Disclosures
The authors did not disclose any links of interest.

P40: Differences on accuracy estimating cognitive performance between multiple sclerosis phenotypes and healthy controls.

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Aim: To compare the accuracy estimating cognitive performance in patients with different multiple sclerosis (MS) phenotypes and healthy controls (HC).
Methods: 54 HC and 112 MS patients (relapsing-remitting MS -RRMS-; n=65 and progressive MS -PMS-; n=47) underwent neuropsychological evaluation and completed the Perceived Deficits Questionnaire (PDQ). Participants were classified as objectively preserved (OP) or impaired (OI) and subjectively preserved (SP) or impaired (SI) according to results on neuropsychological tests and PDQ, respectively. Accurate estimators were those OP and SP or OI and SI. OP but SI patients were considered under estimators and OI but SP over estimators.
Results: Differences in the proportion of OI were found (63.8% in the PMS group versus 32.3% of RRMS and 11.1% of HC, $p<0.001$) but not in the proportion of SI ($p=0.075$). Regarding accuracy, statistically significant ($p<0.001$) differences were found: PMS had higher ratios of over estimators (34.8% versus 17.2% of RRMS and 3.7% of HC) while the RRMS had more under estimators (20.3% versus 10.9% of PMS and 11.1% of HC).
Conclusion: The progressive group has a greater proportion of cognitive impairment but not of subjective impairment, also has a greater proportion of over estimators. Presence of anosognosia in progressive MS could explain these results.

Disclosures
The authors did not disclose any links of interest.

P42: Remote Cognitive Testing in Multiple Sclerosis during the COVID-19 Pandemic

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Approximately 43-70% of people living with multiple sclerosis (MS) experience cognitive impairment. This study-within-a-trial (SWAT) takes place within a host trial investigating the feasibility of the Cognitive-Occupation-Based programme for people with MS (COB-MS), a holistic therapy on the management of cognitive symptoms in MS. Reliable remote cognitive testing could provide safer and more convenient care for MS patients, during the COVID-19 pandemic and thereafter. The SWAT examines the reliability of delivering the Brief International Cognitive Assessment for MS (BICAMS) and the Trail-Making Test (TMT) remotely to people to 68 people with MS experiencing cognitive difficulties. Group 1 (N=34) were tested in-person pre-pandemic. Group 2 were tested remotely. No significant differences between virtual and in-person administrations of the CVLT-II and SDMT were detected. BVMT-R scores were significantly higher for virtual administrations, possibly indicating inter-rater differences. Strong positive correlations were found for in-person and virtual scores within Group 1 on the CVLT-II. The findings support the reliability of remote administration of BICAMS and the TMT in people living with MS. Future research with larger samples could investigate performance on BVMT-R with regards to screen size of device used.

Disclosures
The authors did not disclose any links of interest.

P43: Predicting cognitive impairment in multiple sclerosis: between cognitive reserve and brain volume

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