ENCORE ABSTRACT presented during ECTRIMS 2022 as poster

Real-world data from the MSBase Registry in MOG Antibody Associated Disease: first insights from the MOGAD Substudy

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Abstract (max 2500 characters)

Introduction: MOG Antibody-Associated Disease (MOGAD) is a rare autoimmune demyelinating disorder of the central nervous system affecting children and adults. Clinical features may overlap with NMOSD or MS, although MOGAD is increasingly recognised as a distinct disease.
Aims: To prospectively collect data on the natural history, clinical and radiological characteristics, therapeutic responses, and outcomes of pediatric and adult MOGAD patients.
Objective:To facilitate an observational international study to determine the clinical, therapeutic and prognostic profile of MOGAD patients using the MSBase registry.
Methods: Interim analysis of the MSBase MOGAD cohort (data extraction on May 11 2022 and start of the registry in August 2021). Inclusion criteria: MOG-IgG-seropositive adult and pediatric patients. Descriptive statistics were used for baseline patient characteristics including demographics, symptoms at first presentation, follow-up duration, disease course, immunosuppressive therapies, and EDSS.
Results: A total of 74 patients were included from Australia (n=30), Belgium (n=29), Italy (n=8), Turkey (n=4), Kuwait (n=1), Saudi-Arabia (n=1), and Croatia (n=1). The female to male ratio was 1.2 (54% female, 46% male) with an average age at diagnosis of 36.7 ± 17.5 years for males and 35.8 ± 14.5 years for females. Symptoms at first presentation included optic neuritis (n=34), transverse myelitis (n=13), cerebral syndrome (n=7), brainstem (n=5), and acute diencephalic syndrome (n=3). The median disease duration was 3.3 years for males and 4.4 years for females, and 33 patients had at least 1 relapse (median: 2 relapses, range 1-27). The longest times in person-years on prescribed DMT were with azathioprine, B-cell depleting treatments (including rituximab and ocrelizumab), methylprednisolone, glatiramer-acetate, and interferon beta. The average follow up EDSS showed a stabilisation of 0.6 ± 1.6.
Conclusions: This real-world data from an international cohort confirms previous national studies that patients are most often in their thirties at presentation and have equal gender distribution between males and females. Most frequent phenotypes at first presentation are optic neuritis followed by transverse myelitis. Prospective data collection using MOGAD-dedicated MOGBase within the international MSBase registry will enable detailed analyses of cohort level data, and facilitiate the identification of optimal therapeutic approaches to improve outcomes.

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Disclosures:

BW has received honoraria for acting as a member of Scientific Advisory Boards for Almirall, Biogen, Celgene/BMS, Merck Serono, Novartis, Roche, Sanofi-Genzyme and speaker honoraria

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AVDW has received institutional (Monash University) funding from Biogen, F. Hoffmann-La Roche Ltd, Merck, Alexion, CSL, and Novartis; has carried out contracted research for Novartis, Merck, F. Hoffmann-La Roche Ltd and Biogen; has taken part in speakers' bureaus for Biogen, Genzyme, UCB, Novartis, F. Hoffmann-La Roche Ltd and Merck.

JLS received travel compensation from Biogen, Merck and Novartis; has been involved in clinical trials with Biogen, Merck, Novartis and Roche; her institution has received honoraria for talks and advisory board service from Biogen, Merck, Novartis and Roche.

GL: I and/or my institution have received financial compensation for congress attendance, consultancy, research and education by Almirall, Biogen, Celgene, Bristol Myers Squibb, Novartis, Roche, Sanofi, Teva.

MF has received economic support for travel and meeting attendance from Roche, Merck, Sanofi-Genzyme and Biogen, has been involved in clinical trials sponsored by Roche and Biogen and has published an opinion paper on a MS drug not mentioned in this study.

TK served on scientific advisory boards for BMS, Roche, Janssen, Sanofi Genzyme, Novartis, Merck and Biogen, steering committee for Brain Atrophy Initiative by Sanofi Genzyme, received conference travel support and/or speaker honoraria from WebMD Global, Eisai, Novartis, Biogen, Sanofi-Genzyme, Teva, BioCSL and Merck and received research or educational event support from Biogen, Novartis, Genzyme, Roche, Celgene and Merck.

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