MAGNON – final results: quantitative MRI-Analysis for daily clinical routine of MS patients

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Introduction

Revised Lublin criteria provide definitions for the classification of MS phenotypes yet are not often applied in clinical routine. Quantitative MRI evaluation is also rarely used to determine the clinical course of MS. MAGNON aims to assess the impact of including standardized quantitative MRI data and patient assessment based on Lublin criteria in routine patient management.

Methods

Approximately 1,100 MRI scans of patients with RRMS, SPMS or suspected SPMS were provided at baseline and at follow-up (12 months) by 53 sites in Germany. Analyses of brain and thalamic volumes, volume change over 12 months and T2-lesion-volume and number were performed using a centralised automatic processing pipeline (Biometrica MS®, jung diagnostics GmbH). The usefulness of standardized MRI analyses and the impact on patient assessment, including changes in Lublin classification, were evaluated.

Results

Final results will be evaluated after study completion in January 2023. An interim analysis of 99 patients with suspected SPMS at baseline showed that most patients who were reclassified as SPMS at follow-up had abnormally reduced brain and thalamic volume at baseline. The final analysis will include baseline results of the complete study population (about 650 patients) and evaluate follow-up scans per cohort to show the correlation of MRI results, in particular brain and thalamic volume loss per year, with clinical parameters.

Conclusion

The results inform on the practicability and impact of quantitative standardized MRI data on disease assessment and their use as predictors of disease progression according to the Lublin criteria. Thus, individualized patient care may be supported and enhanced further.

Disclosures

Olaf Hoffmann served on scientific advisory boards, received speaker honoraria from Bayer Healthcare, Biogen, Bristol Myers Sqiubb/Celgene, Merck, Novartis, Roche, Sandoz, Sanofi, Teva; received financial support for research activities from Biogen, Novartis, and Sanofi.

Manda Jankovic has received research support and/or consulting fee and honoraria for lectures from Bristol Myers Squibb and Novartis (2021-2022).

Verena Isabell Leussink has received research support, consulting fee and honoraria for lectures from Biogen, Novartis, Roche, and Teva.

Lothar Spies is an employee of jung diagnostics GmbH.

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Funding source: This study is supported by Novartis Pharma Vertriebs GmbH, Germany.