MAGNON – Implementation and Contribution of Lublin Criteria and quantitative MRI-Analysis for daily clinical routine of MS Patients

Olaf Hoffmann[1], Manda Jankovic[2], Sarah Schmidt[3], Marie Groth[3]

[1] St.Josefs-Krankenhaus Potsdam-Sanssouci, Potsdam, Germany

[2] Sauerlandklinik Hachen, Sundern, Germany

[3] Novartis Pharma GmbH, Clinical Research Neuroscience, Nuremberg, Germany

INTRODUCTION

Revised Lublin criteria provide a definition of remitting and progressing Multiple Sclerosis to classify disease activity of patients with Secondary Progressive Multiple Sclerosis (SPMS). However, Lublin criteria are only rarely used in clinical practice, like quantitative and standardized MRI analyses, which are often not part of standard routine care in patient management. MAGNON aims to evaluate if standardized quantification of MRI data and assessment of MS patients based on the Lublin criteria could help to classify disease activity.

METHODS

1000 MRI scans of patients with SPMS or suspected SPMS will be provided by 50 centers in Germany between 2020-2022. The analysis of standardized MRI data will comprise a volumetric quantification of brain and thalamic volumes as well as T2-lesion-volume and number using a centralised automatic processing pipeline (Biometrica MS®, jung diagnostics GmbH). Percentage brain volume change is computed when follow-up scans are available. The value of standardized MRI analysis and the impact on patient assessment, including potential changes in Lublin classification, is evaluated.

RESULTS

Latest interim analysis data (N=650) show that already one stand-alone standardized MRI scan can provide insights on disease activity and progression. Moreover, physicians stated that already one stand-alone MRI suggested a change in MS treatment for about 40% of their patients with suspected SPMS.

CONCLUSION

MAGNON interim results indicate that quantification of lesion volume as well as brain and thalamic atrophy on routine MRI may facilitate the individual assessment of disease activity and progression according to the Lublin criteria and thus enhance individualized patient care.