

NEUROPSYCHOLOGICAL AND PSYCHOLOGICAL CHARACTERIZATION OF PATIENTS WITH MIGRAINE: PRELIMINARY RESULTS FROM THE COGMIG STUDY

A. Parisi[1], L. Grazzi[1], E. Giacopuzzi Grigoli[1], A. Marcassoli[2], A. Raggi[2], D. Antonio Montisano[1]

[1]Fondazione IRCCS Istituto Neurologico Carlo Besta, Headache Center, Italy; [2]Fondazione IRCCS Istituto Neurologico Carlo Besta Neurology, Public Health and Disability Unit, Italy

Background. Migraine is a complex neurological disorder frequently associated with cognitive difficulties and psychological symptoms, which may contribute to disease burden. This observational study aimed to investigate the cognitive and psychological features associated with migraine.

Methods. 39 patients with a confirmed diagnosis of migraine and at least four attacks per month attending the Headache Center of the Carlo Besta Neurological Institute were enrolled. A multidimensional assessment was performed using validated instruments assessing migraine-related disability and impact (MIDAS, HIT-6), anxiety and depression (HADS), pain catastrophizing (PCS), worry (PSWQ), coping strategies (COPE-NVI), sleep quality (PSQI), and global mental state (GEMS). The assessment have been performed in inter-ictal migraine period (48 hours).

Results. Participants had a mean age of 43.03 years (SD = 12.6); 36 were women (92.3%). The sample showed good cognitive functioning (89.12 ± 6.66), and all participants fell within the normal GEMS range. Patients were further divided into those with performance below the expected level (GEMS−; n = 15) and those with performance in line with or above expectations (GEMS+; n = 24) based on GEMS scores adjusted for demographic profile and cognitive reserve. The GEMS− group showed significantly lower performance in immediate recall (p = .023), months backwards (p = .001), the clock drawing test (p = .026), and metaphor comprehension (p = .008). In the overall sample (n = 39), high levels were observed for HADS-A (8.59 ± 4.17), PCS (25.41 ± 11.81), PSWQ (51.33 ± 12.0), and PSQI (8.13 ± 3.83), alongside a clinically significant headache impact (MIDAS: 36.21 ± 29.0; HIT-6: 65.36 ± 6.79)

Conclusions. The results showed that a subgroup of patients (GEMS−) exhibited lower-than-expected performance in specific cognitive domains (immediate verbal recall, attention–executive functions, and pragmatic–abstract processing) despite overall cognitive functioning within the normal range. The comparable clinical and psychological profiles of the GEMS− and GEMS+ groups indicate that cognitive difficulties may reflect multifactorial mechanisms beyond the assessed variables, suggesting a potentially underrecognized burden of migraine.