

MORAL JUDGMENT IN MIGRAINE: A CASE-CONTROL STUDY

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Background. Evidence on decision-making processes in migraine suggests possible alterations in the evaluation of complex situations. However, their impact on moral judgment remains poorly explored. The aim of this study was to compare the frequency of utilitarian choices and response times to moral dilemmas in individuals with chronic migraine (CM), episodic migraine (EM), and healthy controls (HC), while considering the role of personality traits and clinical variables.

Methods. A total of 188 participants were included: 64 with CM (mean age 46.4 ±12.8), 50 with EM (mean age 48.5 ±12.3), both diagnosed according to ICHD-III criteria, and 74 HC (mean age 37.3 ±13.7). Participants completed a moral judgment task including dilemmas of different types and underwent assessment of personality traits and clinical history. For each participant, the proportion of utilitarian responses and the mean response time across moral dilemmas were calculated. Between-group differences were analyzed using ANOVA, ANCOVA adjusted for age and personality traits, Tukey post hoc comparisons, and mixed ANOVA with Group × Dilemma Type interaction. In participants with migraine, clinical indicators of disease severity were also considered.

Results. No statistically significant between-group differences emerged in the proportion of utilitarian choices; however, both ANOVA (p=.061) and adjusted ANCOVA (p=.054) showed a trend toward statistical significance. Descriptively, the CM group exhibited the highest proportion of utilitarian responses (48%), followed by EM (47.0%) and HC (44%). Mixed ANOVA revealed neither a main effect of dilemma type nor a Group × Dilemma Type interaction. Response time analysis showed a significant group effect (ANOVA: p=.046; ANCOVA: p=.041). Post hoc comparisons indicated significantly longer response times in participants with CM compared with HC (p=.041), whereas the comparison between CM and EM showed a trend toward significance (p=.051). Clinical analyses confirmed greater disease severity in participants with CM, with no evidence of independent associations between clinical indicators and moral judgment.

Conclusions. Findings suggest that migraine does not substantially alter the content of moral judgment but is associated with longer decision-making times, particularly in individuals with chronic migraine. Future studies should clarify whether these findings reflect differences in cognitive processing, disease severity, or treatment-related factors, and confirm the observed tendency toward a greater utilitarian orientation in chronic migraine.