

ANTI-CGRP MONOCLONAL ANTIBODY RESPONSE IN CHRONIC MIGRAINE WITH SEVERE NEUROPSYCHIATRIC COMORBIDITY: A CASE REPORT AND PATHOPHYSIOLOGICAL INSIGHTS

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Background. Chronic migraine is frequently associated with psychiatric disorders and central sensitization, both of which may influence the response to preventive treatments. Anti-calcitonin gene-related peptide (CGRP) monoclonal antibodies represent an effective preventive strategy; however, the determinants of treatment response in patients with high clinical complexity remain poorly understood. We describe the case of a patient with chronic migraine and severe neuropsychiatric comorbidity, proposing an integrated model of symptom amplification.

Methods. We analyzed the case of a 49-year-old woman with chronic migraine, bipolar disorder, and obsessive-compulsive disorder, treated with galcanezumab while receiving stable psychiatric therapy with olanzapine, aripiprazole, lamotrigine, paroxetine, and alprazolam. The assessment included neurological, psychiatric, neuropsychological, and psychometric evaluations using the Beck Depression Inventory-II (BDI-II), State-Trait Anxiety Inventory (STAI), Central Sensitization Inventory (CSI), Montreal Cognitive Assessment (MoCA), Brief Cognitive Status Exam (BCSE), Minnesota Multiphasic Personality Inventory-3 (MMPI-3), Morisky Medication Adherence Scale (MMAS), and Patient Health Engagement Scale (PHE-S). Clinical follow-up was performed after treatment discontinuation and subsequent reintroduction.

Results. The patient exhibited a clear "on-off-on" pattern. Treatment with galcanezumab reduced migraine attacks from more than seven episodes per month to 1–2 episodes/month. Treatment discontinuation was followed by headache recurrence, whereas reintroduction of the drug restored the clinical benefit. The multidimensional assessment revealed severe depression (BDI-II = 59), marked anxiety (STAI = 77/80), pronounced central sensitization (CSI = 100), multidomain cognitive impairment (MoCA = 19; BCSE = 18), and an MMPI-3 profile characterized by high negative emotionality, social withdrawal, and thought dysfunction. Overall, the findings suggest that treatment response is modulated by the interaction among peripheral mechanisms, central sensitization, psychiatric comorbidity, and brain networks involved in pain processing.

Conclusions. This case supports a biopsychosocial model of chronic migraine in which the effectiveness of anti-CGRP monoclonal antibodies is also influenced by the functional state of central pain modulation systems. A multidisciplinary approach integrating neurological, psychiatric, and neuropsychological perspectives may facilitate a more personalized treatment strategy for patients with high clinical complexity.