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Erenumab versus topiramate for the prevention of migraine: Results of a post-hoc efficacy analysis

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OBJECTIVE: To compare the efficacy of erenumab versus topiramate using multiple imputation in a post-hoc analysis of the HER-MES trial.

BACKGROUND: Migraine is a leading cause of disability worldwide. Erenumab (erenumab-aooe in the Unites States), a fully human monoclonal antibody (mAb) targeting the calcitonin gene-related peptide (CGRP) pathway, was approved in 2018 by the FDA and EMA as the first medication specifically developed for migraine prevention. In a randomized, controlled trial (HER-MES), for the first time comparing a CGRP pathway-targeting mAb with a non-migraine-specific oral preventive, erenumab was directly compared with topiramate, one of the most commonly used drugs for migraine prevention.

DESIGN/METHODS: HER-MES is the first head-to-head, 24-week, double-blind, double-dummy treatment epoch (DBTE) trial comparing the tolerability and efficacy of erenumab with topiramate in a German cohort of 777 adult migraine patients with at least four monthly migraine days (MMD). Patients received either (1) 70 mg or 140 mg monthly subcutaneous erenumab (investigator's choice) and an oral placebo or (2) a subcutaneous placebo and the maximally tolerated dose of daily oral topiramate (50–100 mg; control group). Missing efficacy values from patients who discontinued treatment were added using a multiple imputation model based on the observed on-treatment values in this trial. This post-hoc efficacy analysis of erenumab and topiramate over months 4 through 6 evaluated the percentage of patients achieving at least 50% reduction from baseline in MMD (50% responder rate [RR]) and the change from baseline in MMD using a multiple imputation model.

RESULTS: Erenumab was superior to topiramate in the 50% RR and change from baseline in MMD over months 4 through 6.

CONCLUSIONS: The results of this post-hoc analysis complement the superior efficacy results of erenumab compared with topiramate from the analysis of HER-MES primary results.