Real-world persistence and discontinuation of anti-CGRP monoclonal antibodies in migraine: four year follow-up results.

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1. - BACKGROUND AND IMPORTANCE

Monoclonal antibodies (mAbs) targeting the calcitonin gene–related peptide (CGRP) pathway represent a major advance in migraine prevention. However, evidence on long-term persistence in real-world clinical practice is limited. Understanding persistence patterns and reasons for discontinuation is essential to optimise patient outcomes and ensure rational use of these high-cost treatments.

2. - AIM AND OBJETIVES

To evaluate the persistence of anti-CGRP mAbs used in migraine prophylaxis and to identify the main reasons for treatment discontinuation.

3. – MATERIALS AND METHODS

A retrospective observational study was conducted including all treatment episodes defined as unique patient–consultation pairs with initiation of galcanezumab, fremanezumab or erenumab between 2020 and 2024. Data were collected from nine hospitals. Incorrect records with implausible initiation dates were excluded. Persistence was analysed using Kaplan–Meier survival curves, censored at maximum follow-up. Treatment discontinuation was defined as a documented end date. Reasons for suspension were classified into lack of efficacy, adverse events, or clinical improvement. Log-rank tests were applied to compare persistence curves.

4. - RESULTS:

A total of 302 treatment episodes from 259 unique patients were included: galcanezumab (n=126), fremanezumab (n=115) and erenumab (n=61). The mean age was 46.3 years (median 48; range 22–75; IQR 16.5), and 84.4% were women. Regarding treatment line, 75.9% of episodes corresponded to first-line use, 18.2% to second-line, 4.8% to third-line and 1.1% to later lines.

Global persistence was 98.1% at 3 months, 91.9% at 6 months, 84.3% at 12 months, 79.1% at 2 years, 74.4% at 3 years and 68.2% at 4 years. By drug, persistence at 12 months was 85.4% for galcanezumab, 81.3% for fremanezumab and 84.2% for erenumab; at 4 years it was 69.2%, 73.5% and 63.9% respectively. Among 65 discontinuations, the main reasons were lack of efficacy (60.0%), adverse events (18.5%) and clinical improvement (3.1%). When stratified by treatment line, naïve patients showed persistence of 78.6% at 12 months and 64.9% at 36 months, compared with 72.5% and 59.1% in switch patients. Differences were not statistically significant (p=0.78).

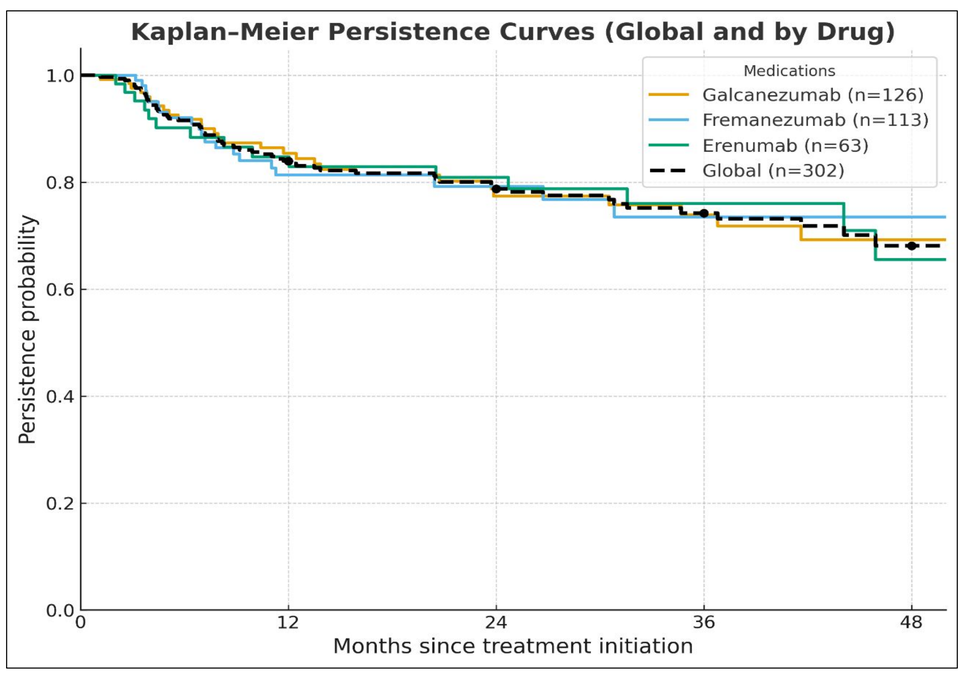

Figure 1: Kaplan-Meier Curve Comparing Treatment and Control (Kaplan-Meier)

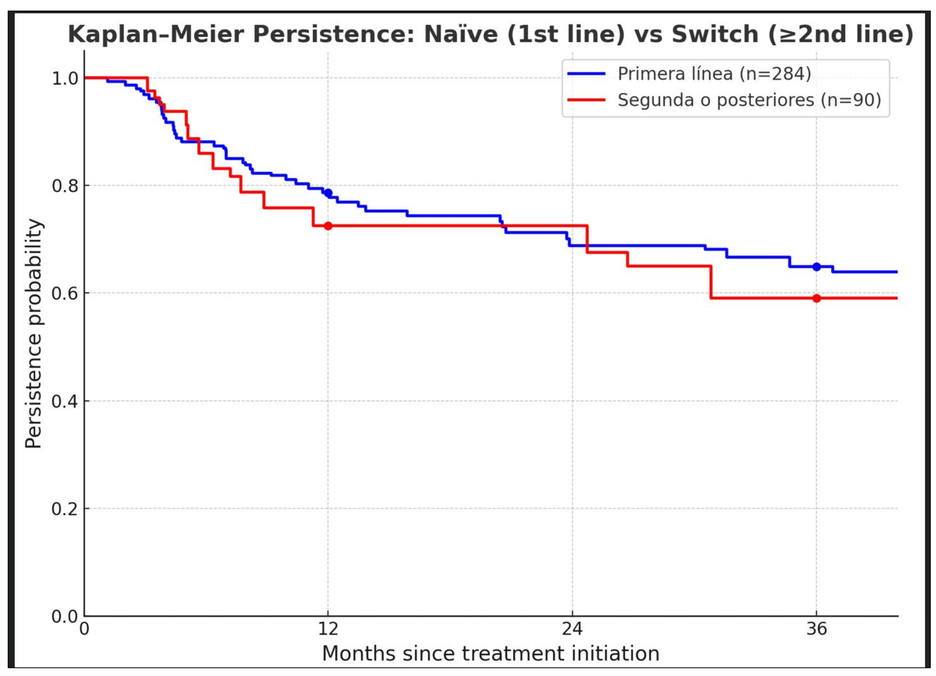

Figure 2: Overall Survival Curve by Type of Intervention

5. – CONCLUSION AND RELEVANCE:

In real-world practice, long-term persistence to anti-CGRP mAbs is high, with galcanezumab and fremanezumab showing favourable persistence up to 4 years, while erenumab demonstrated slightly lower rates. Lack of efficacy was the leading cause of discontinuation. Importantly, no significant differences were found between drugs or between naïve and switch patients. These findings provide multicentre evidence to support treatment decisions and resource allocation in migraine prophylaxis.

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