

LONG-TERM EFFECTIVENESS AND PERSISTENCE OF ANTI-CGRP MONOCLONAL ANTIBODIES IN MIGRAINE: A PROSPECTIVE REAL-WORLD STUDY

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Background. Anti-CGRP monoclonal antibodies (mAbs) are widely used for migraine prevention, but real-world long-term effectiveness data accounting for treatment discontinuation and switching remain limited. We assessed 12-month outcomes using per-protocol and modified intention-to-treat (mITT) analyses, including intra-class comparisons.

Methods. We conducted a prospective observational study of 223 migraine patients initiating anti-CGRP mAbs (erenumab 70mg n=14, erenumab 140mg n=55, fremanezumab n=38, galcanezumab n=58) at a tertiary headache centre. Outcomes included monthly migraine and headache days, MIDAS, HIT-6, HADS, and 50% responder rates. Betweengroup differences were tested with Kruskal-Wallis tests at T12. Attrition and switching rates were tracked. For comparison, botulinum toxin (n=28) and oral prophylaxis (n=63) outcomes were drawn from a parallel headache cohort.

Results. Baseline headache frequency was 18.7±7.3 days/month, with rapid reduction to 8.9±6.8 at T3 and sustained effectiveness at T12 (8.1±6.3). MIDAS decreased from 80.4±59.1 to 29.8±37.2, and HIT-6 from 66.1±9.3 to 56.5±11.7. HADS anxiety improved from 9.2±4.4 to 7.2±4.2, and depression from 7.2±4.2 to 5.4±3.8. Attrition was 30% by T12, with 33 patients (14.8%) switching or stopping treatment (18 stop, 15 switch to another mAb). Per-protocol 50% responder rate at T12 was 67.9% (106/156). No significant intra-class differences emerged (Kruskal-Wallis $p>0.05$ at all timepoints), though erenumab 140mg showed numerically higher response rates (60.0% at T12, n=50). Compared with the parallel cohort, botulinum toxin showed lower per-protocol responder rates (42.9% at T12, n=7) but with substantial attrition (75%), while oral prophylaxis showed 61.5% (n=13, 79% attrition.

Conclusions. Anti-CGRP mAbs demonstrated sustained real-world effectiveness over 12 months with a per-protocol responder rate of 67.9% and treatment persistence of 85.2%. No clinically meaningful intra-class differences were identified, though larger head-to-head studies are needed. Comparison with other prophylactic classes was limited by small sample sizes and differential attrition.