World Academy of Science, Engineering and Technology International Journal of Pharmacological and Pharmaceutical Sciences Vol:17, No:03, 2023

Calcitonin gene-related peptide Receptor Antagonists for Chronic Migraine -Real World Outcomes

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Abstract: Background: Migraine is a leading cause of disability in the world. Calcitonin gene-related peptide (CGRP) receptor antagonists offer an approach to migraine prophylaxis by inhibiting the inflammatory and vasodilatory effects of CGRP. In recent years, NICE licensed the use of three CGRP-receptor antagonists: Fremanezumab, Galcanezumab, and Erenumab. Here, we present the outcomes of CGRP-antagonist treatment in a cohort of patients who suffer from episodic or chronic migraine and have failed at least three oral prophylactic therapies. Methods: We offered CGRP antagonists to 86 patients who met the NICE criteria to start therapy. We recorded the number of headache days per month (HDPM) at 0 weeks, 3 months, and 12 months. Of those, 26 patients were switched to an alternative treatment due to poor response or side effects. Of the 112 total cases, 9 cases did not sufficiently maintain their headache diary, and 5 cases were not followed up at 3 months. We have therefore included 98 sets of data in our analysis. Results: Fremanezumab achieved a reduction in HDPM by 51.7% at 3 months (p<0.0001), with 63.7% of patients meeting NICE criteria to continue therapy. Patients trialed on Galcanezumab attained a reduction in HDPM by 47.0% (p=0.0019), with 51.6% of patients meeting NICE criteria to continue therapy. Erenumab, however, only achieved a reduction in HDPM by 17.0% (p=0.29), and this was not statistically significant. Furthermore, 34.4%, 9.7%, and 4.9% of patients taking Fremanezumab, Galcanezumab, and Erenumab, respectively, continued therapy beyond 12 months. Of those who attempted drug holidays following 12 months of treatment, migraine symptoms relapsed in 100% of cases. Conclusion: We observed a significant improvement in HDPM amongst episodic and chronic migraine patients following treatment with Fremanezumab or Galcanezumab.

Keywords: migraine, CGRP, fremanezumab, galcanezumab, erenumab

Conference Title: ICPN 2023: International Conference on Pharmacology and Neurology

Conference Location : Barcelona, Spain **Conference Dates :** March 06-07, 2023