A real-life study of eptinezumab in Asian patients with migraine (REAP)

Yi Jing ZHAO[1], Jonathan Jia Yuan ONG[2,3], Marianne SHEILA[4], Keira HERR[4], Rohini BOSE[4], Yasmin Idu JION[1]

[1]Department of Neurology, National Neuroscience Institute, Singapore; [2]Division of Neurology, Department of Medicine, National University Hospital, Singapore, [3]Yong Loo Lin School of Medicine, National University of Singapore; [4]Lundbeck Singapore

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KEY POINTS

- In this real-world study of 'difficult-to-treat' Asian patients with migraine, quarterly eptinezumab administration led to rapid reduction in monthly migraine days (MMDs), less migraine-related disability, improved migraine-specific quality of life, reduced most bothersome symptoms and acute medication use days over 6 months.
- At Month 3 and Month 6, 47% and 52% of patients achieved at least 30% reduction in MMDs, respectively; 20% and 28% of patients achieved at least 50% reduction in MMDs, respectively.
- The safety/tolerability of eptinezumab was similar to global studies, with no unexpected/serious safety issues.[1-4]

CONCLUSIONS

- In a 'hard-to-treat' study population, where enrolled patients had previously failed multiple rounds of preventive treatments, eptinezumab showed a sustained reduction in the overall burden of migraine and a favourable safety profile, over a period of six months after treatment initiation.
- The results of this real-life study show the effectiveness of eptinezumab as a preventive medication in Asian patients with migraine receiving treatment in routine clinical practice in Singapore.

Introduction

- Migraine is a common, chronic, and disabling neurological disorder, affecting approximately 15% of the global population and 1.13 billion individuals worldwide.[5,6] In Singapore, migraine ranks 4th on the list of top 10 most disabling health problems, with a lifetime prevalence of 8.2%.[7,8]
- In recent years, the preventive treatment landscape for migraine has evolved with the introduction of calcitonin gene-related peptide (CGRP)-targeting monoclonal antibodies.[9] Eptinezumab is a humanized monoclonal antibody that selectively targets and inhibits the actions of CGRP.[10,11]
- Although there is robust clinical evidence from pivotal Phase 3 placebo-controlled trials on the efficacy of eptinezumab for migraine prevention, there is hitherto limited data on the real-world effectiveness of eptinezumab in Asian patient cohorts.[12]

Objectives

- This study was designed to evaluate the effectiveness of eptinezumab in Asian patients for the preventive treatment of episodic or chronic migraine.

Methods

- This study was a non-interventional, prospective multi-site cohort study of adults with episodic or chronic migraine who were prescribed eptinezumab by their treating physician. Patients were treated with 100 mg eptinezumab intravenously at baseline and Month 3, and followed for six months after the initiation of therapy.
- **Primary endpoints**: change from baseline in monthly migraine days (MMDs) at Month 3 and Month 6.
- **Secondary endpoints**: migraine responder rate (≥30% and ≥50% MMD reduction from baseline), change in migraine-related disability score (MIDAS), headache impact test (HIT-6) score, acute medication use (days/month), improvement in patient-identified (PI)-most bothersome symptoms (MBS) and migraine-specific quality of life questionnaire (MSQ) scores, at Month 3 and Month 6.
- Safety and tolerability of eptinezumab were also assessed.

Results

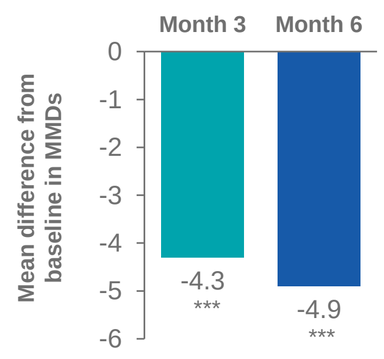
- A total of 30 patients were enrolled into the study, of which 29 completed the study.
- Most patients had experienced at least one previous oral preventive treatment failure (26/30, 86.7%), and 70% (21/30) had previously experienced at least one other anti-CGRP antibody treatment failure. Patient demographics and baseline characteristics are shown in **(Table 1).**
- **Improvement in monthly migraine days**
  - The mean (SD) MMD at baseline was 16.1 (7.1). A significant reduction from baseline in mean MMDs of 4.3 days at Month 3 and 4.9 days at Month 6 were observed **(Figure 1)**.
- **Percentage of MMD responder rates**
  - At Month 3 and Month 6, 46.7% and 51.7% of patients achieved ≥30% reduction in MMDs, respectively; a reduction of at least 50% in MMDs was achieved in 20.0% and 27.6% of patients, respectively **(Figure 2)**.
- **Improvement in MIDAS scores**
  - The mean (SD) MIDAS score at baseline was 62.6 (54.7). There was a statistically significant reduction in mean MIDAS score at Month 6 compared with baseline by 24.6 points **(Figure 3)**. The proportion of patients with severe disability (MIDAS score of 21 or greater) decreased from 70.0% (21/30) at baseline to 48.3% (14/29) at Month 6.
- **Improvement in HIT-6 scores**
  - The mean (SD) HIT-6 score at baseline was 64.0 (7.0), which reduced significantly at Month 3 by 3.1 units **(Figure 4)**.
- **Improvement in days of acute medication use**
  - The mean (SD) number of days per month of acute medication use was 14.6 (8.1) at baseline, which reduced significantly by 3.3 and 4.7 days/month at Month 3 and Month 6 respectively **(Figure 5)**.
- **Improvement in PI–MBS associated with headache**
  - At baseline, the mean number of days/month (SD) where patients experienced their PI-MBS was 13.6 (7.5). This reduced significantly by 3.1 and 4.4 days/month at Month 3 and Month 6 respectively **(Figure 6)**.
- **Improvement in MSQ total score**
  - At baseline, the mean (SD) MSQ score was 48.9 (23.0). This increased significantly by 12.2 and 13.6 units at Month 3 and Month 6, respectively **(Figure 7).**
- **Safety and tolerability profile**
  - Treatment-emergent adverse events (TEAEs) were reported in 16/30 (53.5%) patients and were mostly mild/moderate in severity. No serious TEAEs led to treatment discontinuation.

Table 1. Patient demographics and baseline clinical characteristics (safety population)

Characteristics	N=30
Age, mean (SD), years	44.2 (11.1)
Female, n (%)	19 (63.3)
Asian, n (%)	29 (96.7%)
Employed, n (%)	26 (86.7)
Age of migraine onset, mean (SD)**,** years	24.0 (11.4)
Migraine duration, mean (SD), years	20.2 (13.3)
Number of previous preventive treatment failures for migraine, mean (SD)	3.4 (2.9)
Previous oral preventive treatment failures, n (%)	26 (86.7)
Previous anti-CGRP antibody preventive treatment failure, n (%)	21 (70%)

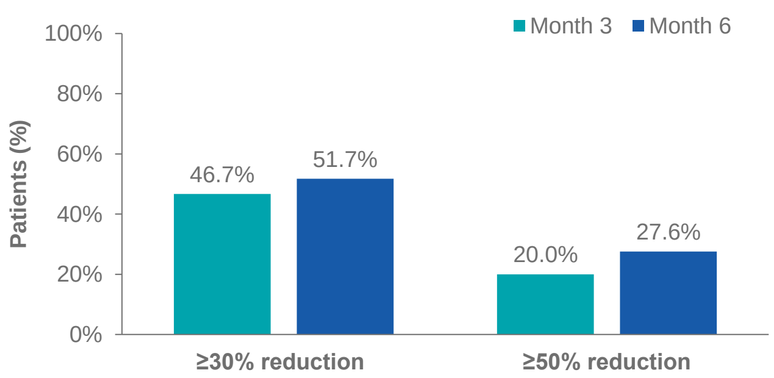
CGRP = calcitonin gene-related peptide; SD = standard deviation

Figure 1. Change from baseline in mean MMDs



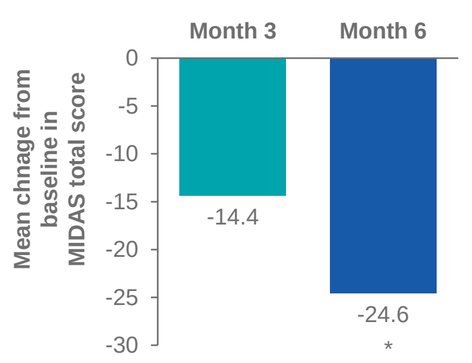
Linear mixed model. ***p<0.001 vs baseline; MMD = monthly migraine days

Figure 2. Proportion of patients achieving ≥30% and ≥50% reductions in MMDs



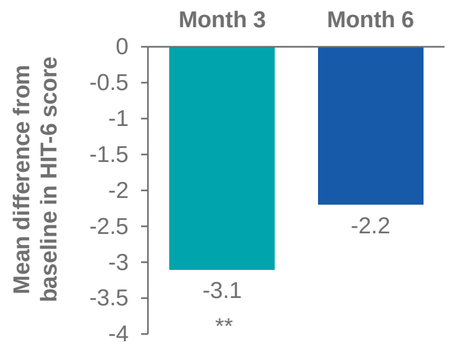
MMD = monthly migraine days

Figure 3. Change from baseline in mean MIDAS score



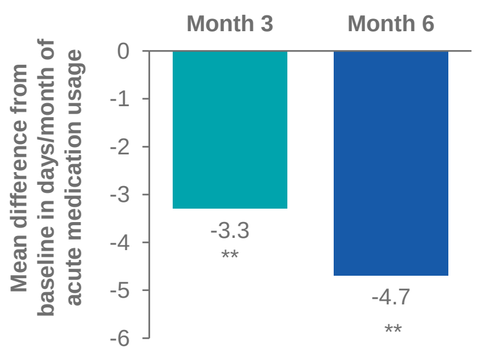
*p<0.05 vs baseline; MIDAS = Migraine Disability Assessment Sacle

Figure 4. Change from baseline in mean HIT-6 score



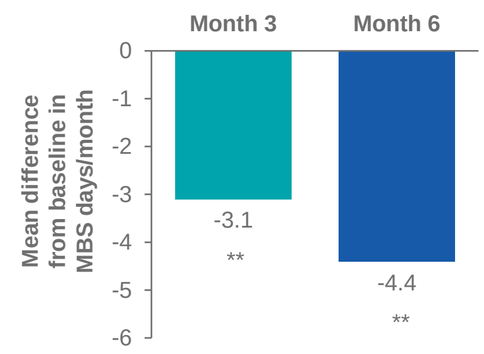
**p<0.01 vs baseline; HIT-6 = Headache Impact Test-6

Figure 5. Change from baseline in the number of days with acute medication use



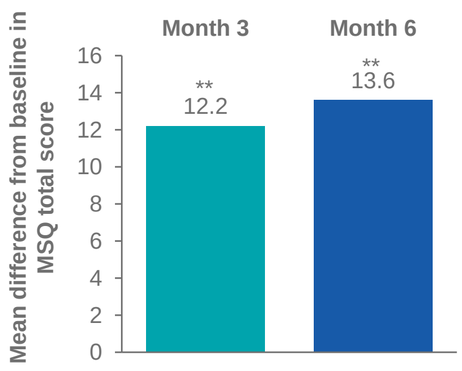
**p<0.01 vs baseline

Figure 6. Change from baseline in PI-MBS associated with headache



**p<0.01 vs baseline; PI-MBS = Patient-informed Most Bothersome Symptoms

Figure 7. Change from baseline in MSQ total score



**p<0.01 vs baseline; MSQ, Migraine-Specific Quality of Life Questionnaire

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Disclosures

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