

VYEPTI (eptinezumab-jjmr) Intravenous Drug as a Preventive Treatment of Migraine

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ABSTRACT

Migraine occurs due to vasodilation of enzyme named calcitonin gene-related peptide (CGRP), and it binds to the receptors causing vasodilation. VYEPTI is a new intravenous drug for migraine and can be used as a preventive treatment. It is a monoclonal antibody that blocks CGRP binding to the receptor, and hence stopping vasodilation. Individuals with migraine will have to take this injection once in 3 months.

Keywords: Calcitonin gene-related peptide, Migraine, Monoclonal antibody, VYEPTI.

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INTRODUCTION

"Migraine" is French by origin and originated from the Greek language/Greek "hemi crania" means "only half the head." In this world, migraine is the third most leading disease.¹ Twenty percent of the world population are affected by migraine; and in South India, 25.2% suffer from migraine. Typically people will have repeated headache in a unilateral manner, nausea, irritant to sound, light, and last for 4–72 hours. Some individuals will have symptoms of neurological and autonomic dysfunction.² Women are more affected than men.³ It also occurs due to psychiatric conditions such as phobia, depression, bipolar, panic, and risk of suicide.³ The study proved that patients showed better prognosis when treated of migraine and mental health problems.⁴

MIGRAINE: OVERVIEW

Migraine is a kind of headache. Patients report one-side headache, which occurs due to a defect in brain activity. The triggering factors for migraines are changes in hormone levels, use of birth control pills, sleeping disturbance, alcohol intake, loud noises, photophobia, smoking, skipping meals, and stress. Migraine are of two types: one is classic (with aura) and another is common (without aura). Treatment of migraine consists of symptomatic management and lifestyle management.^{5–8}

NEWER APPROVED TREATMENT OF MIGRAINE

VYEPTI (eptinezumab-jjmr)

VYEPTI (eptinezumab-jjmr) is an intravenous drug used as a preventive treatment of migraine.

What is the Medication?

VYEPTI is an intravenous drug used as a preventive treatment of migraine in adults, and this drug is approved by the Food and Drug Administration.

Clinical Pharmacology

Mechanism of action—eptinezumab-jjmr is an antibody that adheres to the calcitonin gene-related peptide (CGRP) and blocks it to receptors and preventing vasodilation.

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Pharmacodynamics—eptinezumab-jjmr does not have any clinical effects.

Pharmacokinetics—eptinezumab-jjmr exhibits increase in plasma level after a single dose which is administered once in 3 months. The half-life period is 27 days.

HOW IS IT USED?

Recommended Dosing

- Dosage: 100 mg or 300 mg once in 3 months

Dilution

Dilute only in 100 mL 0.9% sodium chloride solution.

Nature

VYEPTI is of slightly pale or dark background, brownish-yellow in nature.

IMPORTANT PRECAUTIONS AND INTERACTIONS

Reactions

Hypersensitivity reactions such as angioedema, urticaria, facial flushing, and rash.

Temperature Maintenance

Kept at 2–8°C till it is used and should not be exposed to light. Do not freeze or shake.

About the PROMISE Clinical Trial Program

PROspective Multicentre Imaging Study for Evaluation study was done to understand the effectiveness of VYEPTI™ (eptinezumab-jjmr). In this placebo-controlled study, two randomized groups were selected. The first group was PROMISE, which consisted of one patient with migraine for 4 days, one patient with chronic migraine, and other with 14 days of headache. The second group PROMISE consisted of two patients with 8 days of migraine and other with 26 days of headache. Patients were randomized and given 100 or 300 mg of VYEPTI.⁹

Group I: the group received placebo ($n = 222$), 100 mg (221), and 300 mg (222) once in 3 months for 1 year. The patient with headache were classified into control and experiment group. The control group were in placebo effect, experiment group were given with 100 mg and 300 mg of VYEPTI drug the value were statistically analyzed based on that 100 mg 49.8% ($p = 0.009$), 300 mg 56.3% ($p < 0.001$) and 37.4% for placebo. Based on the findings, in the first 7 days of every month it is found to be that people in experiment group had migraine in lesser duration when compared with people were in control group.⁹

Group II: the group received placebo ($n = 366$), 100 mg (356), and 300 mg (350) once in 3 months for 6 months. The patient with headache were classified into control and experiment group. The control group were in placebo effect, experiment group were given with 100 mg and 300 mg of VYEPTI drug the value were statistically analyzed based on that 100 mg 57.6% ($p < 0.001$), 300 mg 61.4% ($p < 0.001$) and 39.3% for placebo. The patient in control group gets migraine in the first 7 days of a month when compared with patient in experiment group.⁹

CONCLUSION

Based on the above study, it is understood that the new drug VYEPTI (eptinezumab-jjmr) is effective when compared with the placebo-treated patients.

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