

Efficacy of Cenobamate in Refractory Focal Epilepsy: A Case Series of different etiologies

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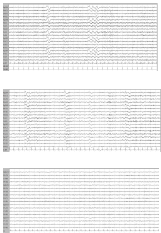
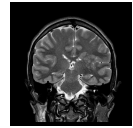
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Introduction

Focal epilepsy often presents significant challenges in management, particularly when pharmacoresistance develops, leading to a substantial impact on patient quality of life. Despite the availability of numerous anti-epileptic drugs (AEDs), a considerable proportion of patients continue to experience debilitating seizures. Cenobamate, a novel AED, has demonstrated broad-spectrum efficacy in clinical trials for focal-onset seizures. This case series aims to highlight the effectiveness of cenobamate in four patients with highly refractory focal epilepsy due to diverse etiologies, illustrating its potential role in complex clinical scenarios.

Case 1

- 32-year-old male
- structural focal epilepsy due to left fronto-insulo-temporal polymicrogyria and nodular heterotopia
- daily minor aphasic seizures and pluriannual major seizures.
- He had failed levetiracetam, oxcarbazepine, and brivaracetam
- Following cenobamate titration up to 200 mg/day major seizures decreased to an annual frequency, and minor seizures significantly reduced, eventually disappearing, leading to a 4-month seizure-free period.

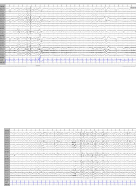


Case 2

- 60-year-old male
- non-lesional, sleep-related hypermotor seizures,
- initially daily/multi-daily, progressing to weekly seizures while awake
- Multiple AEDs had failed, including phenytoin, carbamazepine, lacosamide, clonazepam and oxcarbazepine.
- Cenobamate (250 mg/day) was added to ongoing levetiracetam and perampanel, resulting in initial improvement in seizure intensity and frequency (plurimonthly).
- However, seizure frequency subsequently increased, leading to a pre-surgical evaluation.

Case 3

- 37-year-old female with personality disorder, hypothyroidism, and type 1 diabetes mellitus
- pharmacoresistant focal temporal epilepsy of unknown etiology
- minor seizures (brief loss of awareness) in weekly clusters and sporadic nocturnal tonic clonic seizures
- cenobamate was introduced in combination with topiramate resulting in disappearance of TC seizures and improvement of minor seizures frequency (monthly)



Case 4

- 49-year-old male
- Lennox-Gastaut Syndrome, previously undergoing vagal nerve stimulation (removed) and callosotomy
- daily absence and drop attacks, and weekly tonic-clonic seizures
- extensive AED failures, including phenytoin, phenobarbital, levetiracetam, zonisamide, topiramate, valproic acid, perampanel, lacosamide, carbamazepine, lamotrigine, vigabatrin, felbamate, rufinamide, oxcarbazepine, eslicarbazepine, and cannabidiol.
- after initiating cenobamate at 200 mg/day, tonic-clonic seizures resolved completely, while absence seizures persisted at a plurimonthly frequency.

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