

Rimegepant as a Promising Treatment for Airplane Headache: A Case Report

M. De Luca, L. Ferraù, C. Rodolico, M. Autunno

Regional referral headache center, Department of clinical and experimental medicine, University of Messina

BACKGROUND

Airplane headache is a Rare primary headache disorder
First described in 2004 and included in ICHD-3 (2013)

CLINICAL FEATURES

- Who: intense, stabbing, unilateral pain
- Where: frontal / orbital regions
- When: during take-off or landing
- What: Usually non-disabling, but leads to anxiety and fear of flying
- Why: 8–10 (NRS)

TREATMENT

- No established guidelines
- Anecdotal management: Nasal decongestants, NSAIDs
Triptans

TREATMENT HISTORY

Rizatriptan 10 mg and sumatriptan 20 mg nasal spray
Minimal benefit
Side effects: chest tightness, dizziness (rizatriptan)

THERAPEUTIC INTERVENTION

Initiated rimegepant 75 mg oral, taken ~30 min before landing

FOLLOW-UP

At 10 months: sustained clinical benefit, reduced stress, improved work productivity, no adverse events

PATHOPHYSIOLOGY

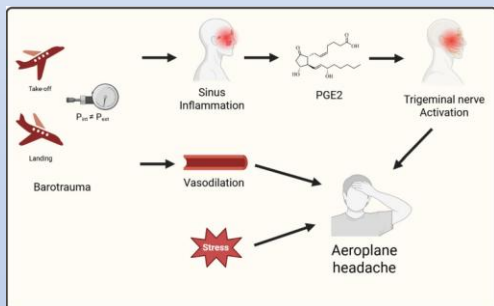


Figure 1. Autunno, M., De Luca, M., Ferraù, L. et al. Rimegepant in airplane headache treatment: a case report. *J Med Case Reports* 19, 243 (2025)

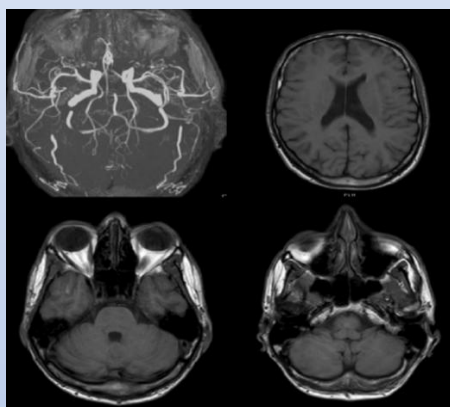


Figure 2. Autunno, M., De Luca, M., Ferraù, L. et al. Rimegepant in airplane headache treatment: a case report. *J Med Case Reports* 19, 243 (2025)



CASE PRESENTATION

28-year-old Caucasian female
Recurrent headaches occurring exclusively during airplane landings
No history of migraine, sinusitis, or other headaches

Clinical features

Severe, stabbing pain in the right orbitofrontal region
Onset: during descent phase
Duration: ~30 minutes after landing
No nausea, vomiting, or autonomic symptoms

Neurological and Diagnostic Work-up

- Normal neurological examination
- Brain MRI: within normal limits (Figure 2)
- ENT evaluation: no anatomical or sinus abnormalities
- Secondary headache excluded (SNOOP10 criteria)

Diagnosis

- Airplane headache (AH) according to ICHD-3 diagnostic criteria.

DISCUSSION

During migraine attacks, activation of trigeminal fibers leads to CGRP release, causing vasodilation and neurogenic inflammation. Although direct evidence in AH is lacking, a CGRP-mediated mechanism is plausible.

Treatment considerations

Rimegepant, a second-generation CGRP receptor antagonist, offers a new potential option by blocking CGRP-mediated vasodilation and inflammation. No vasoconstrictive effects, making it safer than triptans in patients with cardiovascular risk

Clinical implications

The positive response supports further exploration of gepants in AH prevention.

Limitations

Single-patient observation → limited generalizability
Placebo effect and self-reported outcomes cannot be excluded
Short follow-up; no controlled environment
Need for larger, controlled studies to confirm efficacy and clarify underlying mechanisms

24-28 Ottobre 2025
Padova Congress

55° CONGRESSO
SOCIETÀ ITALIANA
DI NEUROLOGIA