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CGRP Antagonists as a Preventive Treatment for Hangover Headaches

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Alcohol hangover headache, also known as delayed alcohol-induced headache (DAIH) or late-onset alcohol-induced headache (LAIH) is highly prevalent, with a lifetime prevalence reported to be around 72%. A Danish study found it to be the most common type of headache reported. While not everyone experiences a hangover headache, it's a common symptom following alcohol consumption.[1]

The International Classification of Headache Disorders, 3rd edition (ICHD-3) defines alcohol-induced headache (AIH) as headache developing within 3 hours (immediate) or between 5 to 12 hours (delayed) of alcohol consumption. These headaches usually resolve spontaneously within 72 hours.[2]

Chronic migraine and alcohol induced headache co-exist. Although individuals with migraines typically consume less alcohol, they are more susceptible to experiencing migraine-like hangover symptoms compared to those without migraines. These findings point to potential similarities in underlying pathophysiology and treatment strategies.[3]

CGRP Antagonists And Prevention Of Hangover Headache

Clinical observations from the author's practice indicate that migraine patients undergoing treatment with calcitonin gene-related peptide (CGRP) antagonists report a reduced incidence of alcohol-induced headaches. These findings are further supported by consistent anecdotal reports and informal clinical observations that patients who would normally develop alcohol-induced headaches don't experience them when receiving CGRP antagonists prior to drinking.

Rationale And Mechanistic Explanation

Ethanol and metabolites induce neurogenic inflammation and vasodilation with the release of CGRP and other neurokinins. In animal

models, intragastric ethanol caused vasodilation around the middle meningeal artery, that was abolished by the CGRP receptor antagonist, BIBN4096BS.[4] Periorbital mechanical allodynia induced by both ethanol and acetaldehyde is abrogated by pretreatment with the CGRP receptor antagonist, olcegepant, and a selective silencing of RAMP1(a component of CGRP receptor) in Schwann cells.[5]

The idea of treating a headache before it begins—or in anticipation of one—is a novel approach. This was recently validated in a randomized, placebo-controlled crossover trial, which demonstrated that administering the CGRP receptor antagonist ubrogepant during the prodromal phase of migraine effectively prevented moderate to severe headache at both 24 and 48 hours.[6]

Conclusion

We believe that CGRP antagonists play a significant role in the prevention and management of Alcohol-induced headache. If taken preemptively, they may prevent the development of hangover headaches. These informal observations and anecdotes should encourage the headache research community to explore this topic more thoroughly.

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