

are not statistically significant, and/or show an advantage for PIM over placebo (such as for postural hypotension), denoting that PIM is a potentially tolerable intervention. In terms of LHH, PIM 34 mg/d is about 5 times more likely to result in clinical response (as measured by ≥ 3 point decrease from baseline on the SAPS-PD) vs. discontinuation due to an adverse event.

CONCLUSIONS: Using the metrics of NNT, NNH, and LHH, PIM 34 mg/d for the treatment of PDP appears to have a compelling benefit-risk profile.

FUNDING ACKNOWLEDGEMENTS: Clinical study was funded by ACADIA Pharmaceuticals Inc.

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Improvement of VIIIth Cranial Nerve Function With Cariprazine

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ABSTRACT: Introduction: Cariprazine an atypical antipsychotic which acts as a dopamine D3-prefering partial agonist at dopamine D2/D3 receptors, as an antagonist at over stimulated dopamine receptors, as a partial agonist at serotonin 5-HT1A receptors, and as an antagonist of 5-HT2A receptors (Citrome, 2016; Kiss, 2010). While indicated for the treatment of schizophrenia and bipolar disorder, it has never been described to improve disorders of cranial nerve VIII. A patient with hearing loss associated with tinnitus, responsive to cariprazine, is reported.

METHODS: Case Study: A 34 year old right handed married male 5 years prior to presentation developed bilateral auditory hallucinations of whispers, and one male disparaging voice. Approximately 6 months later it began belittling him, whereupon he was diagnosed with schizoaffective disorder, attention deficit hyperactivity disorder, and obsessive-compulsive disorder.

Three months prior to presentation he developed sepsis and became comatose. Upon awakening he experienced constant tinnitus, AS more than AD high pitched, without diurnal variation, which has been unrelenting. Coincident with the tinnitus was decreased hearing AS more than AD. Within a few days of treatment with cariprazine at 1.5 mg a day, the tinnitus transiently resolved and after raising the cariprazine to 3 mg per day the tinnitus abruptly stopped and his hearing returned to normal after 2 months. One and a half days after

discontinuing the cariprazine the tinnitus and hearing loss returned. After reinstating the cariprazine to 3 mg a day the tinnitus and hearing loss resolved again.

RESULTS: Psychiatric evaluation: Disheveled with postural tremor of both upper extremities. Pharyngeal dysarthria. Irritable and with expansive and labile affect. Severely impaired attention. Slow tangential thoughts, preoccupied with paranoia and suspiciousness. Paranoid delusions. Mental status examination: Memory testing: Immediate recall: 5 digits forwards and 3 digits backwards. Able to recall none of 4 objects in 3 minutes and 1 with reinforcement. Unable to spell the word "world." Similarities interpreted concretely. Calculation ability poor.

DISCUSSION: In the cochlea, as an inhibitory neurotransmitter, dopamine reduces sensitivity to auditory sensation (Langguth, 2009). Since ambient sounds are known to reduce tinnitus (masking), an antagonist at over-stimulated dopamine receptors, cariprazine may act to reduce dopamine's effectiveness, reducing inhibition and thus enhancing perceived external sound. It may act as a 5-HT1A serotonin agonist, directly reducing tinnitus. With reduced tinnitus there is less of a distraction and thus enhanced hearing. Or its function may be through its neuroleptic effects; the tinnitus could be a manifestation of auditory hallucinations, through reduction of this noise cariprazine secondarily causes enhanced hearing. Further investigation into the use of cariprazine in those with intractable tinnitus is worthwhile.

FUNDING ACKNOWLEDGEMENTS: No funding.

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Improvement in Disease Severity in Patients With Treatment-Resistant Depression Following Treatment With Intranasal Esketamine

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ABSTRACT: Background: Recognizing the importance not only of the clinician's opinion but also of the patient's experience and perspective, Sequenced Treatment Alternatives to Relieve Depression (STAR*D) utilized both clinician-reported and patient-reported outcomes in a large-scale multi-step study on antidepressant effectiveness in real-world settings. Both approaches indicate