

ABSTRACT: Introduction: Pixelated vision or visual snow has been associated with schizophrenia (Silverstein 2011). The impact of viewing a 3D motion picture on such a visual phenomenon has not heretofore been described.

METHOD: Case Study: A 28 year old right handed single male three years prior to presentation noticed that all his vision was pixelated. The pixelated vision is panoramic, involving the entire visual field. The pixels are characterized by 10,000 flat white and gray dots measuring 1mm x 1mm. No changes in color, shape, or size were noted in high and low intensity light. White, dark, gray, or multicolored backgrounds had no effect on his vision. The visual distortions are not impacted by head movements, emotions, degree of tiredness, driving, or his hedonic perception of the object being visualized. The pixels were noted to disappear upon closure of both eyes but persisted during monocular vision with either eye. These visual hallucinations were sporadic during the first year and became continuous over the following two years. Two weeks after onset of pixelated vision he developed auditory hallucinations and hyperacusis. These increased in intensity and frequency to 500-600 times per day. He denied palinopsia, migraines, tinnitus, and photophobia. These hallucinations persisted despite treatment with aripiprazole, paliperidone, lurasidone, olanzapine, clozapine, ziprasidone, benztropine, bupropion, lamotrigine, modafinil, trazodone, atomoxetine, and amphetamine.

RESULTS: Abnormalities in Examination: Hypoverbal, blunted affect, impaired concentration, preoccupied with racing thoughts. Admitted to actively having auditory and visual hallucinations, without suicidal or homicidal ideations. Memory testing: Able to recall 2 out of 4 objects in 3 minutes and 3 out of 4 with reinforcement. Similarities interpreted concretely. Visual Acuity: 20/20 OU. Retinal examination: Normal. Intraocular Pressure: 19 mm OD, 20 mm OS (normal). Automotive Perimetry Testing: Normal. Cover/Uncover: Normal. Near Convergence: 3 inches (normal). Lens or filtered prism have no effect on visual snow. MRI of his brain, EEG, BAER, liver function tests, CBC, vitamin B12, folate, and thyroid function tests were normal. MRA: mild hypoplasia of distal right vertebral artery.

DISCUSSION: Visual snow has been anecdotally described as static, continuous, and independent of the specific visual environment (McKendrick, 2017). However, the persistence of visual snow in the presence of 3D movies has never been reported. The visual snow paralleled auditory hallucinations and hyperacusis in frequency and intensity, which suggests there may be generalized hyperexcitability of the brain inducing both auditory and visual hallucinations. Agents that reduce cortical hyperexcitability (i.e., anticonvulsants, anxiolytics) may have

efficacy. Treatment with these agents has been described (Ghannam, 2017), warrants further investigation.

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149 Deutetrabenazine for the Treatment of Tardive Dyskinesia: Results From an Open-Label, Long-Term Study

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ABSTRACT: Introduction: Tardive dyskinesia (TD) is an involuntary movement disorder resulting from exposure to dopamine-receptor antagonists. In the 12-week ARM-TD and AIM-TD studies, deutetrabenazine demonstrated significant improvements in Abnormal Involuntary Movement Scale (AIMS) scores at Week 12 compared with placebo, and was generally well tolerated.

OBJECTIVE: To evaluate the efficacy and safety of long-term deutetrabenazine therapy in patients with TD.

METHODS: Patients with TD who completed the ARM-TD or AIM-TD studies were eligible to enter this open-label, single-arm, long-term safety study after they completed the 1-week washout period and final evaluation in the blinded portion of the trial. Efficacy endpoints included the change in AIMS score from baseline, and treatment success (defined as "much improved" or "very much improved") on the Clinical Global Impression of Change (CGIC) and Patient Global Impression of Change (PGIC). This analysis reports results up to Week 54.

RESULTS: 304 patients enrolled in the extension study. At Week 54, the mean (standard error) change in AIMS score was -5.1 (0.52). After 6 weeks of deutetrabenazine treatment, the proportion of patients who achieved treatment success was 58% per the CGIC and 53% per the PGIC, and by Week 54 was 72% per the CGIC and 59% per the PGIC, thus demonstrating maintenance or enhancement of benefit over time. Deutetrabenazine was well tolerated for up to 54 weeks, and compared with the ARM-TD and AIM-TD studies, no new safety signals were detected.

CONCLUSIONS: 54 weeks of deutetrabenazine treatment was generally efficacious, safe, and well tolerated in patients with TD.

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Estimation of an MCID for AIMS Total Score Change in Tardive Dyskinesia

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ABSTRACT: Background: The efficacy of valbenazine (INGREZZA) in tardive dyskinesia (TD) was demonstrated in placebo-controlled clinical trials, based on the Abnormal Involuntary Movement Scale (AIMS) total score (sum of items 1-7). In these trials, mean changes in the AIMS total score were significantly greater with valbenazine 80 mg than with placebo. Currently, no minimal clinically important difference (MCID) has been established for the AIMS total score in patients with TD. Using valbenazine trial data, analyses were conducted to establish a MCID for AIMS total score in TD.

METHODS: Data were pooled from three 6-week trials: KINECT (NCT01688037), KINECT 2 (NCT01733121), KINECT 3 (NCT02274558). Using the Clinical Global

Impression ofChange (CGI-TD) as an anchor comparison, AIMS total score changes from baseline to Week 6 were summarized for all study participants (pooled valbenazine and placebo groups) with a “minimal” CGI-TD score of ≤ 3 (minimally improved or better) or “robust” ≤ 2 (much improved or better) at Week 6.

RESULTS: In the pooled population ($N = 373$), 72% and 29% of all participants had CGI-TD scores of ≤ 3 and ≤ 2 , respectively. The median (maximum, minimum) change from baseline in AIMS total score at Week 6 was -2 ($-13, 8$) in participants with CGI-TD score ≤ 3 and -3 ($13, 8$) in participants with a score ≤ 2 .

CONCLUSION: Pooled data from 3 randomized, double-blind, placebo-controlled trials suggest that a 2 point decrease in AIMS total score may represent the minimal clinically meaningful improvement. Larger AIMS score improvements were associated with “much improved” or “very much improved” CGI TD assessments.

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Improving the Systematic Use of Pharmacogenetic Testing for Depression Prescribing

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ABSTRACT: Study Objectives: The purpose of this project was to systematize the use of pharmacogenetic testing (PGT) among psychiatric prescribers. The use of PGT in clinical practice is inconsistent despite the evidence supporting its efficacy (Burke, Love, Jones, & Fife, 2016). The question to be answered is: In patients with major depressive disorder (MDD), how is PGT currently used in clinical practice compared to use after implementation of practice change interventions?

METHOD: This study was conducted among 4 psychiatric prescribers in a behavioral health clinic. 3 interventions were utilized to change practice. An educational in-service was delivered to address the PGT knowledge gap. A protocol for identifying patients that may benefit from PGT was developed, indicating PGT was warranted for patients with non-remitting moderate to severe MDD and at least 2 medication failures from 2 different classes. Next, a medication failure documentation template and the PGT report were integrated into the EHR. A baseline survey was administered before the in-service, assessing