It is illegal to post this copyrighted PDF on any website. A case of New-Onset Psychosis Following Laser Mr A was started on risperidone 0.5 mg for psychotic symptoms

In Situ Keratomileusis (LASIK) Eye Surgery

To the Editor: Visual changes after laser in situ keratomileusis (LASIK) surgery leading to patient dissatisfaction, such as decreased contrast sensitivity, poor distance vision, glare, and halos, are well described in the literature.¹⁻⁴ Although there is a plethora of community forums and individual testimonies describing the development of depressive symptoms in reaction to post-LASIK visual changes,^{5,6} there is a paucity of published reports describing mental health sequelae following this procedure. Furthermore, no literature to our knowledge has described the development of psychosis following LASIK surgery. We report the case of a man who developed first-onset psychotic symptoms following the procedure.

Case report. Mr A, a 51-year-old Hispanic man who underwent LASIK eye surgery 2 months prior with no past psychiatric history, was admitted to the psychiatry department with multiple perceptual disturbances. Although he did not experience acute postoperative complications, he did note post-LASIK visual changes as described above. He then began experiencing visual hallucinations of the inside of his skull 1 ½ weeks prior to presentation, perceiving that his eyes were backward and viewing the internal organs within his cranium. He also reported visual hallucinations of things crawling on his face, an isolated auditory hallucination stating "you're crazy," and an isolated olfactory hallucination of a "burning" smell.

Mr A presented with good reality testing and had insight into the fallacy of these perceptual disturbances. However, he developed worsening mood after their onset, as well as poor sleep, decreased concentration and energy, mild anhedonia, and an episode of passive suicidality. He endorsed dissatisfaction with the LASIK results soon after the procedure but did not have a clear mood disturbance until the onset of the more distressing perceptual disturbances. There was no personal or family history of psychiatric disorder or substance use disorder, and no significant medical history beyond hepatic steatosis and recent LASIK surgery.

Given his unusual late age for first-onset psychosis and the atypical quality of the perceptual changes, including tactile and olfactory hallucinations, an extensive organic workup was conducted to rule out medical illness.^{7,8} Results of ophthalmologic and neurologic examinations, metabolic profile, complete blood count, thyroid function test, ethanol and toxicology screen, vitamin B₁₂ level, erythrocyte sedimentation rate, C-reactive protein level, carboxyhemoglobin level, serum paraneoplastic autoantibodies testing, electroencephalogram, and magnetic resonance imaging of the brain (with and without contrast) were all within normal limits. A workup for Wilson's disease was also conducted given Mr A's personal and family history of hepatic steatosis and mildly elevated liver function tests at admission. Although his serum ceruloplasmin level was mildly decreased (16 mg/dL), results from his 24-hour urine copper test and slit lamp examination were within normal limits, and ATP7B gene testing for Wilson's disease was negative.

Mr A was started on risperidone 0.5 mg for psycholic symptoms and escitalopram 10 mg for depressive symptoms, and both were later titrated to 2 mg and 20 mg, respectively. He responded well to these interventions, with decreased frequency of perceptual disturbances and improvement in mood. He was discharged to a partial hospital program, wherein he continued to respond well to treatment with no recurrence of symptoms (at 1-month follow-up).

Although there is no published evidence to link LASIK surgery to psychiatric illness directly, community reports suggest that some patients experience mood disturbance due to dissatisfaction with unexpected visual changes post-LASIK surgery. Of note, preoperative depressive symptoms may contribute to patient dissatisfaction post-LASIK surgery.⁹ It is possible that post-LASIK visual changes could have acted as an acute stressor precipitating psychosis in this patient. Given the scant published literature currently available on post-LASIK psychiatric complications, it may be of interest to expand research on this topic to more fully understand the prevalence of such occurrences.

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