

Hallucinogen sequelae

I appreciated “The woman who saw the light” (CURRENT PSYCHIATRY, July 2010, p. 44-48) in which Dr. R. Andrew Sewell et al describe a 30-year-old woman with schizoaffective disorder and a 7-year history of visual disturbances, including “flashing lights.” The authors’ differential diagnosis did not include the possibility of visual disturbance secondary to atypical anti-psychotic serotonergic antagonism. Photopsia and similar phenomena are not uncommon with 5HT antagonist antidepressants, such as nefazodone.¹ They also are well-known sequelae of lysergic acid diethylamide (LSD), a complex serotonin antagonist/agonist, and would be included under the DSM-IV-TR diagnosis hallucinogen persisting perceptual disorder (HPPD).² Risperidone, a 5HT₂-blocking atypical, and selective serotonin reuptake inhibitors may worsen HPPD effects.^{3,4} Visual disturbance with risperidone also has been reported in a patient with no LSD exposure.⁵ Dr. Sewell’s patient was treated sequentially with aripiprazole and olanzapine. Both have 5HT blocking properties.

I wonder if the patient has a history of hallucinogen or LSD exposure, or whether her visual symptoms might be related to the use of atypical antipsychotics combined with sertraline. It would be interesting to see if her symptoms abated with use of a first-generation antipsychotic.

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The authors respond

We agree with Dr. Krasnow that HPPD belongs within our differential diagnosis for photopsia and regret omitting it from our article. We consider this to be unlikely, however, because she had no prior LSD use, a history of well-formed visual hallucinations not characteristic of HPPD, and no other characteristic symptoms of HPPD (palinopsia, afterimages, illusory movement, etc.).

In addition, she tolerated olanzapine well, and there is anecdotal evidence and 1 case report to suggest that olanzapine exacerbates HPPD.¹

HPPD typically is considered a rare sequela of LSD use, although even more rarely it may be caused by other drugs.

Common visual disturbances attributed to HPPD are recurrent geometric hallucinations, perception of peripheral movement, colored flashes, intensified colors, palinopsia, positive afterimages, haloes around objects, macropsia, and micropsia occurring spontaneously in individuals with no prior psychopathology. These disturbances can be intermittent or continuous, slowly reversible or irreversible, but are severe, intrusive, and cause functional debility. Sufferers retain insight that these phenomena are the consequence of LSD use and usually seek psychiatric help.

HPPD may be diagnosed by the presence of an identifiable trigger, prodromal symptoms, and presentation onset; by the characteristics of the perceptual disturbances, their frequency, duration, intensity, and course; and by the accompanying negative affect and preserved insight.²

This LSD-induced persistence of visual imagery after the image is removed from the visual field is thought to result from dysfunction of serotonergic cortical inhibitory interneurons with GABAergic outputs that normally suppress visual processors.³ Clonazepam often is helpful.²

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