

Alcohol Related Psychosis

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Introduction

Psychosis associated with alcohol can occur with acute intoxication, alcohol withdrawal, as well as in chronic alcoholics. The specific diagnosis of alcohol-related psychosis is also known as alcohol hallucinosis. It is a relatively rare consequence of alcohol abuse. However, it may be more prevalent than classically thought depending on the inclusion criteria used for diagnosis. In alcohol-induced psychosis, symptoms of psychosis present during or shortly after heavy alcohol intake. Clinically, alcohol-induced psychosis is similar to schizophrenia but has been found to be a unique and independent condition. It is characterized by hallucinations, paranoia, and fear.

Etiology

There are a variety of hypotheses to describe the etiology of alcohol-induced psychosis, but none of them can fully explain the development of acute or chronic hallucinations in certain alcoholics. Therefore, the exact etiology of alcohol-induced psychosis is unknown. It is likely related to dopamine, serotonin, and other neurotransmitters.

Epidemiology

A 2015 Dutch literature review on alcohol-induced psychotic disorder found that there is a 0.4% lifetime prevalence in the general population and a 4% prevalence of alcohol-induced psychosis in patients with alcohol dependence. The incidence is highest in working-age men. There is also a higher prevalence of alcohol-induced psychosis in patients who became dependent on alcohol at a younger age, as well as those with a low socioeconomic status, individuals who are unemployed or living on their pension, and those who live alone. In alcoholics, paternal alcohol problems and paternal mental health problems were found to be associated with a higher incidence of alcohol-induced psychosis. Twin studies also suggest a genetic predisposition to the development of alcohol-induced psychosis. Once diagnosed with alcohol-induced psychosis, there is a 68% chance of re-admission and a 37% co-morbidity with other mental disorders. Patients with alcohol-induced psychosis have a 5 % to 30% risk of developing a chronic schizophrenia-like syndrome.

Pathophysiology

The pathophysiology of alcohol-induced psychosis is unclear. Several hypotheses exist. Some studies suggest that an increase in central dopaminergic activity and a dopamine receptor alteration may be associated with hallucinations in alcoholics. However, serotonin may also be involved. Other studies imply that amino acid abnormalities may lead to decreased brain serotonin and increased dopamine activity leading to hallucinations. Elevated levels of beta-carbolines and an impaired auditory system have also been associated with alcohol-induced psychosis. Neuro-imaging studies have suggested that perfusion abnormalities to various regions in the brain may be associated with the hallucinations in alcohol dependence.

History and Physical

As with any form of psychosis, patients with alcohol-induced psychosis may present with a wide range of symptoms. However, the presence of significant hallucinations or delusions must be evident. The psychosis is more extreme than what could potentially be attributed to alcohol intoxication or withdrawal. Special attention should be paid to mental status including flat affect or responding to internal stimuli. Additionally, a good physical exam needs to be done to look for possible trauma or infectious causes of altered mental status.

Evaluation

The majority of patients presenting with psychosis for the first time have some substance abuse. A detailed history is important in the evaluation of alcohol-induced psychosis. Specifically, it is imperative to determine the patient's alcohol abuse history. It may be difficult to determine whether a patient's psychotic symptoms are due to a primary psychotic disorder or due to substance abuse, including alcohol. This may be especially difficult in the emergency department, where the history is frequently lacking. No family history of psychotic disorder in a patient who has a clear history of alcohol abuse supports the diagnosis of alcohol-induced psychosis. Alcohol-induced psychosis must be differentiated from other causes of psychosis and specifically from schizophrenia. When compared to schizophrenia, patients with alcohol-induced psychosis tend to have significantly lower education levels, an onset of psychosis at an older age, more intense depressive and anxiety symptoms, and fewer negative and disorganized symptoms. Patients with alcohol-induced psychosis also usually have better insight and judgment.

The Diagnostic and Statistical Manual of Mental Disorders (DSM-V) states that the diagnosis of substance-induced psychotic disorder requires the presence of significant hallucinations or delusions. There must be evidence that the hallucinations or delusions started during or soon after substance intoxication or withdrawal or the substance used is known to cause the disturbance. The symptoms are not better explained by a psychotic disorder unrelated to substance abuse. The psychosis does not occur only with delirium. The symptoms cause clinically significant distress or difficulty with normal activity such as work or social interactions.

A detailed physical exam is also important. Stability of the patient, including airway, breathing, and vital signs must be assessed first. Special attention needs to be paid to general appearance including if the patient is unkempt, has a flat affect, smells of alcohol, or appears to be responding to internal stimuli. Additionally, the patient should be evaluated thoroughly for any sign of trauma, especially head trauma. Other causes of altered mental status must also be evaluated, including infection, trauma, metabolic causes such as liver disease, and electrolyte abnormalities. Therefore, CT imaging of the brain, urinalysis, urine drug screen, lab evaluation including electrolytes, liver function tests, ammonia, and toxicology screening may be indicated.

Treatment / Management

The priority is to stabilize the patient paying close attention to airway, breathing and vital signs. If the patient requires sedation due to alcohol-induced psychosis, neuroleptics, such as haloperidol, have been considered the first-line medications for treatment. Benzodiazepines, such as lorazepam, are used, especially if there is a concern for alcohol withdrawal since they are used to treat alcohol withdrawal seizures. It is important to avoid any medication that may lower the seizure threshold. Certain atypical antipsychotics, such as ziprasidone, have also been used to help sedate patients with acute psychosis. Some patients may require the use of physical restraints to protect the patient themselves as well as the staff. Patients with alcohol-induced psychosis must also be evaluated for suicidality since it is associated with higher rates of suicidal behaviors. The prognosis for alcohol-induced psychosis is less favorable than earlier studies had speculated. However, if the patient can abstain from alcohol, the prognosis is good. If patients are unable to abstain from alcohol, the risk of recurrence is high.

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