CASE REPORT

Alcohol-Induced Psychotic Disorder with Suicidal Attempt: A Case Report

Tengku Mohd Saifuddin, Chong Wei Wei, Aida Farina Ismail, Noorul Amilin Harun

Department of Psychiatry, Hospital Tengku Ampuan Afzan, Pahang, Malaysia

Abstract

Alcohol-induced psychotic disorder (AIPD) is a rare complication of alcohol abuse which is characterized by an acute onset of auditory or visual hallucinations that occur either during or after a period of heavy alcohol consumption. Other symptoms include delusions, thought disorder, psychomotor disturbances, and abnormal affect. To establish the diagnosis, one must rule out other disorders such as alcohol withdrawal delirium or other psychotic disorders. Although it is well recognised, relatively little is known about the condition. Moreover, the pathogenesis and treatment of AIPD are still unclear despite high co-morbidity with other psychiatric disorders, high re-hospitalization as well as mortality rates and suicidal behaviour. Therefore, the prognosis appears less favourable. We present a case of young man with AIPD with suicidal attempt secondary to auditory hallucination.

Keywords: Alcohol-induced Psychotic Disorder (AIPD)

Introduction

Alcohol-induced psychotic disorder (AIPD) also known as alcoholic hallucinosis is a rare complication of chronic alcohol abuse [1]. It is characterized by an acute onset of auditory hallucinations that arise either during or after a period of heavy alcohol intake. Other manifestations may include delusions, thought disorder, psychomotor disturbances, and abnormal affect. It is important to rule out other diagnoses such as alcohol withdrawal delirium or late onset psychotic disorder prior to establishing the diagnosis of alcoholic hallucinosis [2]. Present evidence suggests AIPD can be clinically distinguished from alcohol withdrawal delirium and schizophrenia. Apart from that, AIPD is associated with high co-morbidity with other psychiatric disorders, high re-hospitalization and mortality rates and suicidal behaviour leading to a less favourable prognosis [3]. Therefore, more exploration on this topic is needed for further management of patients with this condition. Here, we present a case of a young man with AIPD with suicidal attempt secondary to auditory hallucination.
Case Report

Mr MS, a 29 years old Malay man with a 16-year history of alcohol use and multiple physical co-morbidities, started hearing voices two to three days prior to the admission. Those were multiple third-person, male and female voices, which talked loudly near his ears. The voices were discussing bad things about him. Also, the voices would follow and comment on what he was doing, while he was showering. This was not the first time he heard voices. He had 3–4 similar episodes of hearing voices in the past three years (2015), but unlike the previous episodes, this current episode was unusual as the voices were persistent, very loud and clear as if the persons were talking next to his ears. He was unable to control the voices. Before this, each episode lasted about two to three days. He was described as well in between the episodes.

Apart from that, he had a feeling that somebody was touching his arms and pressing his body. On the night before the incident, he saw a shadow of a human figure in front of his house, but he was unable to tell who the person was or what the person was doing. He started to suspect somebody was going to rob the house. He also believed that people wanted to cast black magic on him. However, none of his family members shared the same beliefs. He was frightened and was unable to sleep for the night.

On the next morning, the voices he heard became so loud that he was no longer able to tolerate. He did not confide in his mother regarding the disturbing voices but instead told his mother that he had abdominal pain and requested mother to bring him to the hospital. His mother then went to the neighbour’s house to seek help for transportation. Meanwhile, he took a knife from the kitchen and stabbed his left upper chest once. He thought the voices would disappear if he died. After stabbing himself, he ran out of the house and found his mother. He was immediately brought to the hospital for treatment. He sustained massive left haemothorax and was sent for emergency exploratory thoracotomy. He was then admitted to the cardiothoracic intensive care unit for one day before being transferred to the cardiothoracic ward.

This was the first incident of self-harm, and he was conscious at the time of the incident and was aware of his surroundings. His act of stabbing himself with the knife was to kill himself so that the voices would stop, and this was unplanned. He denied he was being controlled by other people or external forces. He explained that if he did not experience the disturbing voices, he would not attempt to harm himself. After he was saved, he felt remorseful but was unsure whether he would do this again if the voices recurred.

After the incident and the surgery, he still heard voices, but it was a voice calling his name from a far distance. It was transient and occurred mostly at night. The volume of the voice was very soft, and the intensity had reduced significantly. He denied having visual or tactile hallucinations now. However, he still believed that his symptoms were due to being black magic by people, though the belief was not as strong as before.

He started taking alcohol when he was 13 years old. This was introduced by his friends. Initially, he took alcohol 3 times per week. However, after the accident in 2015, his alcohol intake increased to daily use. For the past 3 years, he took 2 bottles of 150ml liquor (local brands which contain 33% of alcohol) every day, spending RM15 per day to buy the drinks. He drank as he did not
have other activities to do. He usually took alcohol alone or with his friends at the beach near his house, in the evening, and he could easily get alcoholic drinks in his village. Sometimes, he got drunk and fall asleep. He had to continue taking alcohol as, if he did not, he would turn irritable and would start having restlessness, hand and body shakiness after 1 day. His longest period of abstinence was a week, in last year. He relapsed due to influence from his friend. His last use of alcohol (a bottle of Tyson) was the day before admission.

As he did not work, he had to ask his father to give him money to buy alcohol. When the father did not give him money, he would become angry, verbally and physically aggressive towards his family members. There were many episodes when the father was hit by him due to above reasons.

He claimed the good effect of alcohol was to make him happy. He knew the bad effects of alcohol especially on his pancreas. He was also involved in a few accidents under the influence of alcohol, sustained injuries but denied history of having seizures. He wanted to cut down on his drinking and did feel guilty but he continued to drink. He got annoyed when his parents told him to stop. He denied needing alcohol as eye-opener in the morning. He denied taking other recreational drugs. He denied recent increased alcohol intake or getting drunk after taking the alcohol. He had no slurred speech, loss of consciousness and unsteady gait. After thoracotomy, he had mild craving for alcohol and hand tremors but no nausea or vomiting, anxiety, restlessness or increased sweating.

On further history, he admitted, for the past three years, after he met with a motor vehicle accident and sustained multiple injuries and was unable to work, he felt sad on and off. This was because he had undergone multiple surgeries and complications including pain that had affected his functions. There were also a sense of emptiness and hopelessness, and occasional passive death wishes but these were not persistent. His family noted him to be irritable and sometimes verbally abusive especially when his demands were not fulfilled.

His sleep and appetite had been normal prior to this incident. He denied symptoms of depression, anxiety and mania. He denied having forgetfulness or other cognitive deterioration.

Mental state examination revealed a thin Malay man with good hygiene. He was calm and cooperative. His speech was relevant and coherent. The mood was euthymic and the affect was appropriate and congruent to his thoughts. He had no perceptual and thought disturbances. His cognition was intact. The judgement and insight were partial. The neurological examination was unremarkable.

In ward, he was started with benzodiazepine and thiamine. No psychotropic medication was initiated in view of his psychotic symptoms improving.

**Discussion**

Alcohol-induced psychotic disorder (AIPD) is a relatively rare schizophrenia-like disorder characterized by auditory hallucinations and delusions without disorders of consciousness and orientation. Like other psychotic disorders, it has a high risk for rehospitalization and relapse [4]. However, there was no history of admission to psychiatric ward in this patient.

The lifetime prevalence of AIPD is 0.5%
and highest among working age men (1.8%). Younger age at onset of alcohol dependence, low socioeconomic status, father’s mental health or alcohol problems and multiple hospital treatments are associated with increased risk of AIPD. Moreover, people with earlier onset of alcohol problems with associated drug use has higher relation with psychotic disorders than in those without. Heavy alcohol use over many years often precedes alcohol-induced psychosis [5]. This patient has many risks of AIPD such as young onset of alcohol dependence, low socioeconomic status and heavy alcohol consumption.

Prominent psychiatrists began denoting AIPD as a specific alcoholic psychosis since 19th century [6]. However, the diagnostic entity of this disorder has been questioned. The phenomenon of hallucinatory psychosis in chronic alcohol users garnered substantial attention but did not gain recognition as a diagnosis [7]. This is because, the distinction from the various disorders remains less well defined even though the psychotic manifestations AIPD have been documented for many years. Apart from that, patients often have comorbid elements of several disorders, and the psychotic phenomenons are often diverse. The paranoid-hallucinatory symptoms with alcoholic hallucinosis and paranoid schizophrenia are very similar. Furthermore, auditory hallucinations and delusions of reference are common in both groups. However, psychotic ego disturbances, younger age and more gradual onset, and family history of schizophrenic psychosis are more common in schizophrenia patients as compared with alcoholic hallucinosis patients[8]. The points against schizophrenia in this patient are; the brief duration and transient nature of the psychosis. The characteristics of disturbance also do not meet the criteria A of schizophrenia in DSM-V.

Differentiating between alcoholic hallucinosis and schizophrenia is important because these conditions require different pharmacological treatment and further therapeutic management. Alcoholic hallucinosis is sometimes misdiagnosed as schizophrenia which leads to unnecessary lifelong treatment with antipsychotics. The onset of alcoholic hallucinosis is a clear indication for neuroleptic treatment. Usually the paranoid-hallucinatory symptoms can be eliminated within a few days or weeks. Given abstinence, further prognosis is good and continued neuroleptic treatment is not indicated. Additionally, patients who develop alcoholic hallucinosis tend to be suicidal and should be admitted to a psychiatric hospital[9]. This patient presented with suicidal attempt secondary to the voices. However, he denied persistent passive death wishes prior to this.

The psychopathology of this group is similar as reported in the West. The majority had brief auditory hallucinations that responded rapidly to thiamine, benzodiazepine and in prolonged cases, an antipsychotic. Those with long standing delusions of persecution and infidelity of spouse progressed badly. Although the hallucinations went away, the delusions still persisted. Delusions may take 1 - 2 weeks to resolve. Some also established speech disorder when interviewed. This is unusual in alcohol induced psychotic disorder which may lead to being misdiagnosed as schizophrenic illness [10].

In AIPD, onset and course of the illness are difficult to predict. Most patients report that the hallucinations start during withdrawal, while some still had persistent hallucinations even when they started drinking alcohol again. In some cases, alcoholic hallucinosis tends to become chronic. Compared to AIPD, alcohol withdrawal delirium is a life-
threatening condition, which requires adequate treatment (clomethiazole or benzodiazepines, intensive care treatment), while neuroleptics are the treatment of choice in alcoholic hallucinosis [11].

A variety of hypotheses have been offered but none of them can sufficiently explain the development of acute or even chronic hallucinosis in some alcoholics. Nevertheless, since AIPD closely resembles schizophrenia and might even serve as a model for schizophrenia, further research in this area is warranted [12]. A greater cognitive deficits in AIPD compared to uncomplicated alcohol dependency supports the notion that several brain regions and possibly several neurotransmitter systems are involved in the pathogenesis of AIPD [13].

AIPD has a high rehospitalization rate and a more chronic relapsing course. Patients should therefore be more closely monitored during follow-up. However, there are no relevant therapeutic studies that have been performed in patients with AIPD. Some case reports have been published, and most authors suggest neuroleptics for treatment. One group has proposed valproate and glycine as alternative medications [14].

There is adequate evidence that some patients with AIPD show a favourable response to antipsychotic medication. There is nothing to indicate the superiority of any particular drug as both first and second-generation antipsychotics appear to be effective. However, it seems likely that some patients show little or no response to antipsychotics. Furthermore, there is no evidence to guide the duration of treatment. As complete abstinence from alcohol when it can be achieved, slows or stops other alcohol-related disease processes, there is good reason to strongly recommend it.

There is sufficient evidence to caution patients that even controlled drinking may lead to the return of psychotic symptoms. Apart from that, there is insufficient evidence for other treatments reviewed here to recommend their routine use in the treatment of AIPD[15]. Furthermore, for acute hallucinosis, Valproate is effective and is generally well tolerated[16]. This patient was only being given benzodiazepine for alcohol withdrawal. Anti-psychotic was not initiated in view of his psychotic symptoms improving.

As a conclusion, alcohol-induced psychotic disorder (AIPD) is a severe mental disorder with poor outcome. However, quite little is known about the disorder. Moreover, the variability of psychotic symptoms in AIPD (auditory, visual hallucinations and delusions) seems to make it difficult to differentiate it with other psychotic disorders. This problem seems to be a confusing but a promising one. Further research on this topic should include, genetic, brain function and morphology, which may contribute to the understanding of the pathological mechanisms in AIPD.

Acknowledgement

The authors would like to thank the Director General Health Malaysia for the permission to publish this paper. We would also like to express our gratitude to those who have contributed their invaluable inputs for this publication.

References


**Corresponding Author**
Dr. Tengku Mohd Saifuddin,
Department of Psychiatry,
Hospital Tengku Ampuan Afzan, Kuantan,
Pahang, Malaysia

**Email:** saifrao87@gmail.com