Alcohol-Induced Psychotic Disorder and Depressive Disorder: a Dual Diagnosis Case Series

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Alcohol-induced psychotic disorder (AIPD) is a diagnosis in the ICD 10. Previous studies of AIPD do not appear to have reported the co-morbid presence of depressive disorder in either prevalence studies or treatment studies. Five cases are presented with a dual diagnosis of AIPD and depressive disorder. These cases were assessed using the Brief Psychiatric Rating Scale (BPRS), Hamilton Depression Rating Scale (HDRS), Clinical Global Impression Severity score (CGI-S), Clinical Global Impression Improvement score (CGI-I), Drug Attitude Inventory 10 (DAI 10), Short Assessment Personality-Abbreviated Scale (SAPAS) and Modified Sainsbury Tool. Antidepressants and antipsychotics were chosen based on drug attitude scores from DAI 10. Cases demonstrate inpatient and outpatient treatment with good treatment outcomes after six months. Three cases demonstrate suicide risk. The majority did not have a personality disorder. These cases highlight the importance of treating a depressive disorder in AIPD and of tailored medication treatments for poor medication compliance.

Keywords: *depression; alcohol; hallucinosis; medications; compliance; alcoholic psychoses; AIPD.*
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Alcohol-induced psychotic disorder (AIPD) is a diagnosis in the ICD 10 [1]. There has been some difficulty in understanding its onset and prognosis [2, 3]. It has been compared to schizophrenia and important differences have been found between the two conditions. Patients with AIPD had a significantly lower educational level, later onset of psychosis, higher levels of depressive and anxiety symptoms, fewer negative and disorganized symptoms, better insight and judgment, and less functional impairment compared with patients with schizophrenia [4]. High suicide risk has been found in cases of AIPD [5].

Clear effective treatments have also been difficult to describe because of a lack of homogenous trials. One systematic review found that antipsychotic use resulted in full or partial remission of AIPD. Standard treatment for alcohol withdrawal states was the most studied treatment with good outcomes [6].

One important factor that may affect treatment of alcohol-induced psychotic disorder is the co-morbid presence of a depressive disorder. Previous studies of alcohol-induced psychotic disorder do not appear to have reported the presence of a depressive disorder in either prevalence studies or treatment studies. This is an important observation because depressive disorder is a common occurrence with alcohol dependence syndrome [7, 8].

This case series describes the treatment of alcohol-induced psychotic disorder and depressive disorder in five patients. Informed consent was obtained from all patients. Assessment scales of BPRS, HDRS, CGI-S and CGI-I were used to judge severity of symptoms [9–11]. SAPAS was used to determine the presence of a personality disorder [12]. DAI 10 was used to assess attitudes to medications which correlates highly with medication compliance [13]. Low scores on DAI 10 suggest poor compliance to medication. Suicide risk was assessed using Modified Sainsbury Tool [14].

Case A. *A 53-year-old male who was in a long-term relationship and had a diagnosis of alcohol dependence syndrome was referred to the accident and emergency department (A&E) by his primary care physician. He had binge alcohol use of 20 units per day over 2 to 3 day period (maximum 60 units) every fortnight. He had an alcohol problem for 30 years. He had a long attendance of psychiatry services over 30 years with approximately 10 admissions to psychiatry units for complaints of low mood, suicidal thoughts, aggression and auditory hallucinations. He was treated on an outpatient basis and was prescribed antidepressants, antipsychotics and mood stabilisers over the years. He had a history of frequent non- attendance to psychiatry service sessions. He had a diagnosis of a mixed personality disorder with emotionally unstable, narcissistic and antisocial features. His alcohol consumption increased during the previous six months and he consumed 12 units per day. He had not attended psychiatry services for 2 years and was not on any psychotropic medication. He did not have any mood or psychotic symptoms prior to his current presentation. He had no previous suicide history. There was a family history of depression but no alcohol or illicit drug addiction. Over three weeks he reported command auditory hallucinations telling him to kill himself and derogatory auditory hallucinations. He attempted to tie a rope around his neck on three occasions. He reported low mood, irritability, poor sleep, poor concentration, no appetite loss and suicidal thoughts. He stayed in the hospital for 2 weeks. He was treated with reducing doses of chlordiazepoxide, vitamin B complex, fluoxetine and risperidone. He had a CGI-S: 6, BPRS: 44, SAPAS: 4, HDRS: 20 & DAI 10: -4. He was treated in the community with paliperidone depot instead of oral risperidone. He reported sexual dysfunction which responded to a phoshodiesterase inhibitor. At a review six months later, his mood improved and he did not have auditory hallucinations. He found it difficult to maintain alcohol abstinence and intermittently consumed alcohol of 12 units at a time. He had a CGI- I: 1.*

Case B. *A 60-year-old male who was in a long-term relationship with a diagnosis of alcohol dependency syndrome self- presented to the A&E. He was abstinent from alcohol for three years following completion of a 6-month residential alcohol detoxification and rehabilitation programme. His alcohol problem started from his teenage years. It never affected his ability to work, but it did cause his divorce. His son had an illicit drug addiction. There was no other family history of mental illness. He had started to consume 20 units per day for four weeks. He described persecutory delusions and persecutory auditory hallucinations which started when he resumed alcohol consumption. He thought that he might have a transistor implanted in his body causing him to hear voices. He barricaded his room because he felt people were after him and attempted to hang himself due to the distress. He described low mood, suicidal thoughts, agitation, poor concentration, disturbed sleep, poor appetite with weight loss. He had no previously treated mental illness. He stayed in the hospital for two weeks and was treated with fluoxetine and risperidone. While on the ward he attempted to cut his throat. He had a CGI-S: 6, BPRS: 43, SAPAS: 1, HDRS: 28 & DAI: +10. He did not describe any side effects to the medications prescribed. While in the community he did have problems remembering to obtain his prescription, however he maintained compliance with medication. He maintained good alcohol abstinence. At a review six months later, his mood improved, and he did not have auditory hallucinations. He had a CGI-I: 1.*

Case C. *A 36-year-old single male with low mood, suicidal thoughts, persecutory and derogatory auditory hallucinations self-presented to A&E on 2 occasions. He reported low mood, poor concentration, poor motivation, tiredness, poor appetite with weight loss of 1 year's duration. He reported a 7-month duration of persecutory and derogatory auditory hallucinations, which worsened in the last two months. He thought he heard his work colleagues talking about him, verbally abusing him and calling him derogatory names. He was also stressed due to busy workload. Eight weeks prior to his A&E presentation, his primary care physician prescribed citalopram 10mg which he took for 1 week but these seemed to worsen his auditory hallucinations and so he stopped it. He reported one year of alcohol consumption of 6 units per day. He reported drinking alcohol because he felt low in mood. He was treated for a depressive episode 2 years ago with citalopram 20 mg which he took for 3 months, and which had good effect. He took an overdose at that time. He reported an untreated depressive episode 14 years ago. He would not normally take alcohol to excess. His father died by suicide. There was no other family history of mental illness or alcohol and illicit drug addiction. He never had auditory hallucinations before this current episode. Two weeks prior to his presentation to A&E, he described poor sleep and intense suicidal thoughts of hanging himself or cutting his wrists. He was treated in the community and prescribed sertraline and olanzapine. He had a CGI-S: 5, BPRS: 43, SAPAS: 1, HDRS: 26 & DAI 10: +4. He reported weight gain and sedation to olanzapine, however he was happy to continue with medication. He found it difficult to maintain alcohol abstinence. He described intermittent alcohol use with worsening of auditory hallucinations on two occasions. This coincided with discontinuation of his medication. At a review six months later, he reported auditory hallucinations to a lower degree. He had a CGI-I: 2.*

Case D. *A 56-year-old male self-presented to A&E with low mood, poor coping, hopelessness, poor sleep and disturbed appetite for the duration of approximately 8 months. His family noticed that he was unwell for 8 months and indicated that he felt he was being watched by people. He had cameras installed which were monitoring suspected burglars and drug dealers. His son had issues with drug dealers who would come to the house. He believed his body was being tortured and that unknown persons were doing this. He was searching for a particular man who, he believed, could resolve his problem. He believed he may have been having these experiences (persecutory delusions) for 20 years which started after stopping 20 years of binge alcohol use of 90 units per week. His brother completed suicide and his son had illicit drug addiction. He had no previously treated mental illness. He was admitted to hospital for 4 days and prescribed both olanzapine and fluoxetine. He was diagnosed with a depressive episode with psychotic features. He attended an outpatient clinic but was non-compliant with medications due to sedation from olanzapine after 6 months. He took medication intermittently but became increasingly unwell over a number of weeks. He was admitted again 1 year after his initial presentation because he was distressed, acting on his delusions and was not compliant with oral medication. He stayed in the hospital for four weeks and was treated with fluoxetine and risperidone. He had a CGI-S: 5, HDRS: 33, BPRS: 43, SAPAS: 0 & DAI 10: -5. He was treated in the community with paliperidone depot instead of oral risperidone. At a review six months later, his mood improved, and he had no further persecutory delusions, however, he did not believe he had a mental illness. He reported extra pyramidal side effects to paliperidone depot which improved on reduction of the dose. He had a CGI- I: 1.*

Case E. *A 65-year-old male was referred by his primary care physician to the community psychiatry service with a 10-year history of consuming 40 units of alcohol per day which was reduced to 28 units per week for the last seven years. He reported low mood, poor concentration, disturbed appetite, disturbed sleep, poor motivation, decreased energy, tiredness and visual hallucinations for seven years. The visual hallucinations comprised seeing relatives at a funeral. He was not disturbed by these experiences. He saw an ophthalmologist who found no visual abnormality. He had no previously treated mental illness. He had no suicide attempts. His mother was treated for depressive disorder. His father had alcohol addiction. He had a CGI-S: 4, HDRS: 21, BPRS: 35, SAPAS: 0 & DAI 10: +10. He was treated in the community with venlafaxine XL and quetiapine. He did not describe any side effects with the medications. At a review six months later, he partially described visual hallucinations. He had a CGI- I: 2. (See Table).*

Results

Five cases are presented with a diagnosis of alcohol-induced psychotic disorder and depressive episodes. These five cases demonstrate a degree of heterogeneity. All five cases are male. Four cases are above the age of 50. These cases support existing findings of AIPD in males of working age [15]. Four cases describe persecutory auditory hallucinations and persecutory delusions. One case describes visual hallucinations, which is supported by the literature [16]. Three cases demonstrated suicide risk, which is supported by the literature [5]. Three cases had inpatient treatments and were prescribed fluoxetine because of its long half-life to offset any missed doses due to non-compliance in the community [17]. Two of these 3 inpatient cases had low DAI 10 scores and were prescribed paliperidone depot medication in the community to help compliance with medication [18–23]. All 3 inpatient cases did not have any re-hospitalisations at one year follow-up. All cases at a review six months after admission reported improvement in symptoms as measured by CGI-I and self-reported compliance with medication. Four cases did not have a personality disorder.

Case	Age	HDRS	BPRS	SAPA-A	CGI-S	DAI-10	Suicide Risk	Inpatient	Treatment	Post 6 months treatment CGI-I
A	53	20	44	4	6	-4	no	yes	Fluoxetine 20 mg per day & Paliperidone depot 150 mg per month	1
B	60	28	43	1	6	+10	yes	yes	Fluoxetine 60 mg per day & Risperidone 4 mg per day	1
C	36	26	43	1	5	+4	yes	no	Sertraline 200 mg per day & Olanzapine 10 mg per day	2
D	56	33	43	0	5	-5	yes	yes	Fluoxetine 60 mg per day & Paliperidone depot 150 mg per month	1
E	65	21	35	0	4	+10	no	no	Venlafaxine Xl 150 mg per day & Quetiapine 150 mg per day	2

Discussion

AIPD has a general population lifetime prevalence of 0.41%, or 4% for people with alcohol dependence syndrome. It is most common amongst men of working age [15]. AIPD is said to manifest immediately after the consumption of large amounts of alcohol. It may not be related to duration of alcohol dependence syndrome [15, 24]. Symptoms may develop during alcohol intoxication or withdrawal or soon thereafter. The diagnosis cannot be made until clear consciousness is restored. AIPD is said to usually resolve within 18 to 35 days with antipsychotic and/or benzodiazepine treatment [25]. A minority of patients may have persistent symptoms for six months or more [26, 27]. AIPD may end through alcohol abstinence alone and return soon after reinstatement of drinking [2, 3]. Antipsychotics are thought by some to be the treatment of choice [28, 29], however, this is not supported by published randomised controlled trials. In the 1950s, three large-scale seminal studies followed patients with AIPD for 5-23 years in order to examine prognosis and diagnosis [26, 27, 30]. However, the presence of a depressive disorder was not described here. A two-part study by Glass 1989 did not include the impact of depressive disorders on AIPD either [2, 3]. Presence of depressive and anxiety symptoms were recognised in a later study, however the main emphasis of this study was to differentiate between AIPD and schizophrenia, and so depressive disorder was not diagnosed clearly [4].

These cases describe the comorbid presence of a depressive disorder and alcohol-induced psychotic disorder. These cases also show a degree of heterogeneity in age of onset, presentation, treatment compliance and suicide risk which can sometimes cause difficulty in clearly making diagnoses, which may have an impact on appropriate treatment. In particular, these cases highlight the need to be aware of diagnosing and treating depressive symptoms in alcohol-induced psychotic disorder.

Participants are likely to live in difficult social situations due to alcohol excess which would affect medication compliance [31]. Hence, compliance to treatment is important and should be a factor in the choice of medications. Medications with long half-lives were hypothesised to be a better choice in cases with low DAI 10 scores, to offset any missed doses due to non-compliance [18, 19]. Hence, fluoxetine was chosen as the antidepressant in the inpatient cases because they had low DAI 10 scores and because of its long half-life [17]. Cases were also prescribed long-acting paliperidone depot because of its association with good medication compliance [21–23]. Inpatient cases were initially prescribed oral risperidone as a trial of medication compliance. If oral risperidone compliance was poor, they were switched to paliperidone depot. The patients who were prescribed paliperidone depot /oral risperidone and fluoxetine combination were also cases that required inpatient treatment which is a high level of intervention. This is consistent with the literature describing high re-hospitalisation rates in AIPD cases [32]. It would be hypothesised that non-compliance with alcohol abstinence and medications would be the cause for these high rates of re-hospitalisations. The 2 cases who were prescribed treatment other than paliperidone / risperidone and fluoxetine combination, were treated on an outpatient basis and had higher DAI-10 scores.

Conclusion

Treatment of AIPD should consider the presence of comorbid depressive disorder. Medication compliance should be taken account when delivering treatment interventions. Attention should be given to the fact that AIPD cases are associated with high re-hospitalisation rates and suicide risk [5, 32]. Further robust studies are needed to describe optimum hospital and community treatment associated with AIPD.

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