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Case Report

CASE REPORT ALCOHOL WITHDRAWAL SYNDROME

¹Khethavath.Divya, ²Dongri. Swetha, ³Rathod. Rajeswari, ⁴Dr .P. Soma Sekhar
^{1,2,3}Student of Pharm D 4th year, VCPSR, Boduppal, Hyderabad, Telangana, India.
⁴ Assistant Professor, VCPSR, Boduppal, Hyderabad, Telangana, India.

Abstract:

Alcohol withdrawal syndrome is a condition that happens when a person who has been drinking alcohol regularly for a long time suddenly stops or reduces it. [1] It mainly affects the brain and nerves. [2] The symptoms can start mildly, like feeling anxious or having slight shaking in the hands, but in some cases, they can become serious, leading to seizures or a confused state called delirium tremens. [5,6] Long-term alcohol use can also affect the stomach, causing problems like gastritis, which gives a burning pain in the abdomen. [7,8]

In this case, a 30-year-old man came to the hospital with complaints of difficulty in walking and a burning sensation in his abdomen. [10] He also had a history of drinking alcohol. On examination, he had mild tremors and some difficulty with coordination. [5] His lab reports were normal, which helped rule out infections or other metabolic problems. [9]

The patient was treated with proton pump inhibitors to reduce stomach irritation and thiamine supplements to support nerve function. [13,14] Over time, his symptoms improved gradually. [15]

“This case highlights the importance of recognizing the early signs of alcohol withdrawal and starting the right care promptly to prevent serious complications.” [1,12]

KEYWORDS: Alcohol withdrawal syndrome, chronic alcohol use, tremors, anxiety, seizures, delirium tremens, impaired coordination, difficulty walking, gastritis, abdominal burning, proton pump inhibitors, thiamine supplementation, supportive treatment, early diagnosis, symptom improvement.

Corresponding author:**Khethavath.Divya,**Student of Pharm D 4th year,

VCPSR, Boduppal, Hyderabad,

Telangana, India.

E-mail : kethavathdivya11@gmail.com

QR CODE



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INTRODUCTION:

Alcohol is one of the most widely consumed psychoactive substances worldwide and acts primarily as a central nervous system depressant. [1] Its effects are mainly mediated through enhancement of gamma-aminobutyric acid (GABA), an inhibitory neurotransmitter, and inhibition of glutamate, an excitatory neurotransmitter. [2] With chronic alcohol exposure, the brain undergoes adaptive changes, including downregulation of GABA receptors and upregulation of excitatory pathways. [3] When alcohol intake is suddenly reduced or stopped, these adaptive mechanisms result in a hyperexcitable state of the central nervous system. [4] This leads to the development of alcohol withdrawal syndrome, characterized by symptoms such as tremors, anxiety, agitation, and impaired motor coordination. [5] In severe cases, it may progress to seizures and delirium tremens. [6] In addition to its neurological effects, chronic alcohol consumption also damages the gastric mucosal lining, leading to inflammation and increased acid secretion. [7] This results in alcohol-induced gastritis, which commonly presents as a burning sensation in the abdomen. [8] This case report aims to highlight the combined presentation of neurological and gastrointestinal manifestations of alcohol withdrawal and emphasizes the importance of early diagnosis and management. [9]

CASE REPORT:

A 30-year-old male presented to the outpatient department with complaints of difficulty in walking

properly and a burning sensation in the abdomen. The symptoms had developed gradually and were causing significant discomfort to the patient.

The patient had a history of regular alcohol consumption but had recently reduced his intake. There was no history of fever, seizures, head injury, vomiting, or loss of consciousness. He had no known history of diabetes mellitus, hypertension, renal disease, or liver disorders.

On clinical examination, the patient was conscious and oriented but appeared anxious. He exhibited mild tremors and difficulty in maintaining balance while walking. Neurological examination revealed no focal deficits, and cranial nerve functions were intact. Motor and sensory examinations were within normal limits. Vital signs were stable, and no signs of systemic infection or organ dysfunction were observed.

The patient was diagnosed with Alcohol Withdrawal Syndrome (mild to moderate) along with alcohol-induced gastritis based on his history of long-term alcohol use and recent reduction, along with symptoms like tremors, anxiety, and difficulty in walking, even though his lab reports were normal. This condition mainly occurs because the brain gets used to alcohol over time. When the intake is suddenly reduced, the brain becomes overactive, leading to symptoms like tremors, anxiety, and imbalance. At the same time, alcohol irritates the stomach lining and increases acid, which causes gastritis and results in a burning sensation in the abdomen.

Table 1: Daily Vitals Monitoring Chart

Date	Blood Pressure (mmHg)	Pulse Rate (beats/min)	SpO2 (%)	Temperature	Remarks
12/10/2025	130/90	78	98	Afebrile	Patient conscious and hemodynamically stable.
13/10/2025	140/90	102	98	Afebrile	Mild tachycardia noted; patient under management for alcohol withdrawal.
13/10/2025	150/90	104	Not Recorded	Afebrile	Elevated blood pressure and pulse; continued monitoring advised.
16/10/2025	140/90	68	Not Recorded	Afebrile	Vital signs stabilized; patient clinically improve

TABLE 2: LABORATORY INVESTIGATION

Parameter	Patient Value	Normal Range	Interpretation
Hemoglobin	14.6 g/dL	13–17 g/dL	Normal
Total Leukocyte Count	9.8 x10 ³ /uL	4,000–11,000	Normal
Platelet Count	264 x10 ³ /uL	150–400	Normal

TABLE 3: DRUG CHART

Drug	Dose	Route	Frequency	Purpose
Thiamine (Vitamin B1)	100 mg	IV/Oral	Once daily	Prevent Wernicke's encephalopathy
Proton Pump Inhibitor (e.g., Pantoprazole)	40 mg	Oral	Once daily	Reduce gastric acid / treat gastritis
IV Fluids (Normal Saline / Dextrose)	As required	IV	Continuous	Hydration and electrolyte support
Multivitamins	As prescribed	Oral	Once daily	Nutritional supplementation
Diazepam	5-10mg	IV/Oral	6-8 hourly	Frist line alternative to control withdrawal symptoms
Optineuron	100ml	IV	Once daily	Vitamin B complex supplementation
Sucral	10ml	oral	4 times daily PO/HS	Gastritis, abdominal burning
Buscopan	2ml	IV/IM	Once daily	Abdominal pain

DISCUSSION:

Alcohol Withdrawal Syndrome (AWS) is a well-documented clinical entity that occurs following the abrupt cessation or reduction of prolonged and heavy alcohol consumption. [1] Previous published studies and case reports have consistently described AWS as a spectrum of manifestations ranging from mild symptoms—such as tremors, anxiety, and gastrointestinal discomfort—to severe complications including seizures and delirium tremens. [5,6] The clinical presentation of our patient aligns with these observations. [5]

In the present case, the patient exhibited mild to moderate withdrawal symptoms, notably impaired coordination and abdominal discomfort. [10] Similar to findings reported in earlier literature, the absence of severe neurological deficits and the presence of normal laboratory parameters were instrumental in excluding alternative differential diagnoses such as central nervous system infections, metabolic disturbances, and structural brain abnormalities. [9] This emphasizes the importance

of a thorough clinical evaluation to accurately attribute symptoms to alcohol withdrawal. [11]

Gastrointestinal manifestations are frequently reported among individuals with chronic alcohol use. [7] Published studies have highlighted that chronic alcohol consumption leads to irritation and inflammation of the gastric mucosa, resulting in alcohol-induced gastritis. [8] The abdominal discomfort observed in our patient is consistent with these findings, underscoring that AWS may present with both neurological and gastrointestinal symptoms simultaneously. [7,8] Recognizing this overlap is essential for comprehensive patient management. [11]

Early recognition and prompt initiation of treatment are crucial in preventing the progression of AWS to more severe and potentially life-threatening stages. [12] Consistent with established guidelines and previously published reports, our patient was managed with supportive care and thiamine supplementation. [13] Thiamine plays a vital role in preventing neurological complications, particularly Wernicke's encephalopathy, which is a well-known

risk in patients with chronic alcohol dependence. [14] Timely administration of thiamine significantly reduces associated morbidity and improves clinical outcomes. [15]

ROLE OF CLINICAL PHARMACIST

The clinical pharmacist played a significant role in this case by identifying the symptoms of alcohol withdrawal and ensuring appropriate pharmacological management.

Medication review helped in selecting suitable drugs for symptom control and preventing complications. The pharmacist ensured the timely administration of thiamine and monitored the patient's response to treatment.

Patient counseling regarding alcohol cessation and adherence to medication was also provided, which is essential in preventing recurrence.

CONCLUSION:

This case highlights the importance of early recognition and management of mild alcohol withdrawal syndrome and its associated gastrointestinal complications, such as gastritis. [1] Prompt diagnosis, timely administration of thiamine, appropriate pharmacotherapy, and supportive care were crucial in preventing disease progression and ensuring recovery. [13,14] The case also demonstrates the significant role of the clinical pharmacist in medication optimization and patient counseling, ultimately contributing to improved patient outcomes and prevention of recurrence. [16]

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