

Motivation enhancement in a case of Alcohol dependence presented with Wernicke Encephalopathy: a Case Report

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Abstract

Alcohol related complications are fairly common among the chronic users. Life threatening complication such as Wernicke encephalopathy does occur; we do encounter it as mental health professionals. Motivation to stop or change the drinking habit is very crucial in the management of cases of Alcohol use disorder. Such a condition with cognitive dysfunction in itself hinders the process in such a case.

This case report highlights the implication of Wernicke encephalopathy (WE) and the process of motivation to

change in such a case of Alcohol dependence syndrome (ADS). A 38-year-old case presented in our Emergency department with ADS, later upon shift to Psychiatry ward, Wernicke encephalopathy was also diagnosed. His initial assessment revealed confusion and his motivation in pre-contemplation stage. During the ward stay, as the patient condition stabilized with high dose of Thiamine and other measures, motivation enhancement was done. Later on, his motivation gradually changed to decision phase. Patient, since then, has been abstinent in alcohol.

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INTRODUCTION

Alcohol is the most commonly used psychoactive substance leading to significant disability and death globally. The 2018 World Health Organizations (WHO) Global Status Report on Alcohol and Health in 2016 states 3 million deaths in harmful use of alcohol (or 5.3% of all deaths) which was more than hypertension and diabetes combined. The WHO report estimated that 5.1% of the global burden of disease and injury which is equivalent to 132.6 million Disability-adjusted Life Years (DALYs), was caused by alcohol use.¹

A study in B. P. Koirala Institute of Health sciences, Dharan, Nepal showed that alcohol and substance related problems were the most common cause for psychiatric emergency consultations.^{2,3} According to studies, motivation has been found to be major key factor for behavior change; people will not change their behavior unless they are motivated.⁴ Lack of motivation has been recognized as one of the principal causes of treatment failure and relapse in alcohol related problems.⁵ Wernicke encephalopathy (WE) is an acute neurological condition characterized by a clinical triad of ophthalmoplegia, ataxia and confusion which

hinders the communication and motivation process. This disease is caused by thiamine deficiency, which primarily affects the peripheral and central nervous systems. Prevalence data on Wernicke encephalopathy comes mainly from autopsy studies with rates ranging between 1% and 3%.⁶

We report a 38 year case of Alcohol Dependence Syndrome (ADS) to highlight the implication of Wernicke encephalopathy (WE) and the process of motivation to change in drinking habit in such a case.

Case Report

A 38 year old, unmarried, Kirati, male, with middle level education, with alcohol use culturally accepted in the family, presented to Emergency department, subsequently to Psychiatry OPD, BPKIHS with total duration of alcohol use of 25 years, started gradually and continuous course with no known significant stressor. He had history of consumption of alcohol for last 25 years for which had tolerance, withdrawal, craving, use despite harmful evidence and last intake on day of admission. He also had features suggestive of nicotine dependence. He had poor dietary intake since last 6-8 months, and had presented with forgetting of his mobile password for some days, not being able to recall what was done recently. On examinations, his general condition was fair, had mild pallor and icterus. Mild tremor was seen on outstretched hands;

nystagmus in horizontal direction on both eyes and his gait was ataxic. His mental state examination (MSE) showed: slightly increased psychomotor activities (PMA), rapport not established, objectively confused. In thought content, he did not express any concern regarding his drinking habit; motivation in pre-contemplation phase. His memory assessment revealed immediate and recent memory to be impaired, with confabulation; however, remote memory was intact. He had no insight regarding his state.

Investigation showed liver function tests (LFT) deranged with: increased Gamma GT, Bilirubin and ALT/AST. MRI-brain showed increased T2 signal around mamillary bodies. With these findings, a diagnosis of alcohol dependence syndrome (ADS) presented in uncomplicated withdrawal with nicotine dependence syndrome (NDS) with Wernicke's encephalopathy (WE) was made. Inj. Thiamine 500mg in three divided doses was started, and the detoxification with lorazepam was done. The patient showed gradual recovery in nystagmus and gait along with his immediate and recent memory. Motivation stage was regularly assessed and motivation enhancement was accordingly done in sessions during later part of his ward stay. He was discharged back home in decision phase with naltrexone 50mg/day.

Discussion

There was a linear association between chronic alcohol use, dietary deficiency and Wernicke's encephalopathy. Cases of alcohol dependence syndrome are prevalent in most of the parts of Nepal and the risk of Wernicke's encephalopathy is further increased due to low socioeconomic status leading to poor dietary intake and lack of awareness. Our case had been consuming alcohol 3-4 liters a day for last 5 years and also had history of dietary deficiency for last 6-8 months both of which were great threat for thiamine deficiency.⁶ Thiamine deficiency may result in consequences including Wernicke's encephalopathy and even Korsakoff syndrome/psychosis. The later is dreaded for being largely irreversible. The chronic use of alcohol and history of recent dietary deficiency were present as risk factors in most of the patients which were seen in our case.⁶

Majority of the patients were found to be in contemplation and pre-contemplation stages of motivation to change drinking behaviors in a study conducted in Nepal which supports the finding of our case.⁷ The prospect of motivation enhancement is challenged by the presence of cognitive deficits. Neuro-rehabilitation can also have immense benefits in Wernicke's encephalopathy, it has been reported to lead the patients to live independent life afterwards.⁸

Motivation to change in alcohol dependent patients is very important factor which minimizes the further chances of relapse and associated complications.

Conclusion

Motivational interviewing and motivation enhancement can be done after the restoration of cognitive functions with the treatment with thiamine and vitamin supplementation in cases of alcohol dependence syndrome, even with Wernicke's encephalopathy. Motivation enhancement plays vital role in such patients for sustained remission and prevention of complications such as Wernicke's encephalopathy.

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