

SCIENTIFIC ABSTRACTS

Alcoholism - the Worst Addiction

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Introduction: The most common substance of abuse/dependence in patients presenting for treatment in western countries is alcohol. Ethyl alcohol or ethanol which is also called medicinal alcohol is used as an official drug compendium. It is also administered as an antidote in methanol poisoning. However, regular consumption of high amounts of alcoholic drinks induces dependence and addiction leading to alcoholism.

Definition: Alcoholism is a broad term for advanced chronic ethanol abuse. It is, in fact, a compulsive and uncontrolled consumption of alcohol beverages usually to the detriment of the drinker's health, personal relationships, and social standing. World Health Organization expert committee discouraged the use of "alcoholism" in medicine and recommended a preferred term of "alcohol dependence syndrome". However, alcoholism is still used more frequently and the people suffering from alcoholism are called "alcoholics."

Clinical Manifestations and Complications: Women are more sensitive to ethanol than men. Long-term complications of alcohol dependence also develop more rapidly in women than in men with higher mortality. Genes play an important role in alcoholism and its complications. Brain, heart and liver are the main affected organs in alcoholism. Physical symptoms or diseases produced by alcohol addiction include cirrhosis of the liver, pancreatitis, epilepsy, polyneuropathy, dementia, peptic ulcer, malabsorption, cardiovascular complications and even cancer. Death is mainly due to cardiovascular complications.

Management: All factors which encourage an alcoholic to continue drinking must be considered to successfully prevent a relapse. Detoxification alone does not actually treat alcoholism. It is thus necessary to follow-up detoxification with an appropriate treatment program to reduce the risk of relapse. Medications (benzodiazepines, acamprosate, calcium carbimide, disulfiram and naltrexone) have been used for treatment of alcoholism without great success. Even various forms of psychotherapy, social supports with medications have had limited success.

Conclusion: The most common and the worst substance of abuse is ethanol which leads to alcoholism with many social and health problems. Therefore, prevention of alcohol abuse is the most advisable.

Keywords: Addiction; Alcoholism; Ethanol**Fomepizole as a First-line Treatment of Patients with Methanol Poisoning**

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Methanol is responsible for a life-threatening poisoning. Fomepizole, a potent alcohol dehydrogenase inhibitor, is an efficient and safe antidote that prevents or reduces toxic methanol metabolism. Although no study has compared its efficacy with ethanol, fomepizole is recommended as a first-line antidote. Treatment should be started as soon as possible, based on history and initial findings including anion gap metabolic acidosis, while awaiting measurement of serum alcohol concentration. Administration is easy (15 mg/kg-loading dose, either intravenously or orally, regardless of alcohol concentration, followed by intermittent 10 mg/kg-doses every 12 hours until alcohol concentration becomes less than 30 mg/dL). There is no need to monitor fomepizole concentration. If administered early, fomepizole prevents methanol-related visual and neurological injuries. When administered prior to the onset of significant acidosis or organ injury, fomepizole may obviate the need for hemodialysis. When dialysis is indicated, 1 mg/kg/h-continuous infusion should be provided to compensate for its elimination. Its side-effects are rarely serious and with a lower occurrence than ethanol. Fomepizole is contraindicated in case of allergy to pyrazoles. It is both efficacious and safe in the pediatric population, but is not recommended during pregnancy. In conclusion, fomepizole is an effective and safe first-line antidote for methanol poisoning.

Keywords: Fomepizole; Methanol; Poisoning