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Dr. Janki Solanki
PG Scholar Part-1,
Department of Organon of
Medicine and Homeopathic
Philosophy. Rajkot
Homeopathic Medical Collage
(RHMC), Parul University,
Rajkot, Gujarat, India

Alcohol use disorder: A disorder of life style modification and it's homeopathic management

Dr. Janki Solanki

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Abstract

Alcohol is one of the widely used psychoactive substance in the world and has been a part of different cultures for hundreds of years. India's alcohol market is set to grow annually by 8.86% during the 2022-25 period, according to the market analysis [1]. This shows the increase alcohol demand in society. Alcohol use disorder is the global health issue in current era, this happened because, lack of awareness of alcohol related problems among people. As they are under the impact of mass media and entertainment industries, which are creating false narratives on tender mind. Homeopathic intervention in alcohol addict, will not only treat alcohol dependency but improves alcohol related problems also. Thus, it says that homeopathy treats man in disease not disease in man.

Keywords: Alcohol use disorder, ethanol, psychoactive substance, intoxication, dependence, homeopathy

Introduction

AUD is a medical condition characterised by an impaired ability to stop or control alcohol use despite adverse social, occupational, or health consequences. It encompasses the conditions that some people refer to as alcohol abuse, alcohol dependence, alcohol addiction and the colloquial term, alcoholism [2]. Excessive alcohol intake affecting mental as well as physical level with hazardous effects on different organs and immune system. Long continued alcohol intake can lead to development of dependence, which is responsible for withdrawal syndrome when consumption is reduced or stopped. Many people have relapse even after entering in recovery from alcohol addiction due to some factors like fear of withdrawals, social disturbance, stressful life, favourable situations, poor socio-economic condition and mental instability.

Alcoholism have effects like, memory loss, hangovers, blackouts, and serious effects like cancer, cirrhosis of liver etc, affects unfavorably on existing conditions like depression-anxiety³. Alcohol don't just hurt the drinkers, but family also get affected in one or another way. Under the influence of alcohol intoxication, the person may indulge in domestic violence, may exhaust the saving, their children suffers physically or psychologically, which can negatively affects whole family [4].

Various patters of alcohol consumption [5]

- **Social drinking:** Use of alcohol in single day in moderate quantity.
- **Binge drinking:** Consuming five or more drinks on single occasion.
- **Harmful drinking:** Drinking up to the level that create harm physically and psychologically to the individual or society
- **Hazardous drinking:** Drinking that places individual at risk for adverse health effects.
- **Alcohol dependence:** Which is the reliance on alcohol to function normally, strong desire to consume alcohol, controlling issues, develops after continuous use of alcohol despite knowing its harmful effects.

Various factors affecting AUD

- **Individual factor:** It consists of age of initiation, sex, family circumstances and socio-economic status, poor impulse control, low self-esteem, escape from reality, psychological distress, maintaining factors. If an individual is more vulnerable than he is more likely to develop alcohol related problems [4].

Corresponding Author:
Dr. Janki Solanki
PG Scholar Part-1,
Department of Organon of
Medicine and Homeopathic
Philosophy. Rajkot
Homeopathic Medical Collage
(RHMC), Parul University,
Rajkot, Gujarat, India

- **Genetic factor:** It seen that 'alcoholism gene' run in families influencing likelihood of developing AUD. but genes alone are not responsible, the environmental influence as well as genetic inheritance are account for the remainder of the risk ^[6].
- **Societal factors:** It covers level of economic background, cultural and social norms, availability of alcohol, spirituality of family, rapid urbanisation, implementation of alcohol policies. Adverse health impacts are greater seen in poorer societies due to lack of education, awareness, and lower income ^[4].

Epidemiology

WHO released a report in January, 2023 saying no amount of alcohol intake is safe, they analysed European union's data on cancer related deaths and found that 50% of alcohol related cancer deaths are actually due to light and moderate use of alcohol consumption. Alcoholism is responsible for around 5.3% of all death, every year, globally with 5.1% DALYS. Beyond health consequences, harmful effect of alcohol brings significant socio-economic losses to individuals and society. There is casual relationship between harmful use of alcohol and a range of mental and behavioural disorders ^[7].

India's latest NFHS survey ^[8], published in May, 2022, revealed that alcohol consumption among both men and women was higher in rural areas than in urban localities due to socially deprivation, economic instability, poverty, illiteracy. Overall ratio of alcohol consumption between men and women is 19:1.

Pathophysiology

Alcohol contain the chemical ethanol (C₂H₅OH) that reduces the activity of various inhibitory and excitatory neurotransmitter pathways in the brain. Major inhibitory neurotransmitter GABA acts as 'off' switch and restricts brain activity, ethanol is GABA agonist, so when it binds to GABA receptors it makes that inhibitory signal more-stronger and reduces neuronal excitability. Ethanol activates opioid receptors and induces release of endorphins, which are responsible for release of dopamine and serotonin. Dopamine controls body movement and co-ordination, whereas serotonin regulates digestive functions and appetite. It also acts on glutamate, which is an most abundant excitatory neurotransmitter work as energy source for brain cells as well as maintaining learning and memory processes ^[3].

Ethanol effect on different areas of brain ^[9]

Alcohol related brain damage alters both the structure and function of the brain as a result of direct neurotoxic effects on brain, damage becomes more prominent by time can leads to impaired neuropsychological performance such as poor judgment, confusion in problem solving, distraction from work, difficulties in emotional processing.

- **Reward area:** Nucleus-accumbens, amygdala, hippocampus, striatum-produces rewarding feeling like

euphoria, so person believes that drinking leads to euphoria and they are more likely to drink again. Binge drinking is more likely to affect as it occurs after a relatively short period of time.

- **Cerebral cortex:** It is thought processing centre of brain, ethanol slows everything down, making it more difficult to think and speak clearly.
- **Prefrontal cortex:** Ethanol slows behavioural pattern and making people feel more relaxed and less self-conscious leads to impairments in executive control tasks.
- **Cerebellum:** This area is responsible for movement and balance of body, ethanol causes individual to lose their co-ordination, making it harder to walk or do complex tasks like driving.
- **Hypothalamus and pituitary gland:** Which regulates various hormones and mood, ethanol typically increases sexual arousal but decreases a person's ability to engage in sex.
- **Medulla:** Which controls automatic functions like breathing, consciousness and body temperature. Ethanol increases sleepiness, slows breathing and lowers the body temperature.

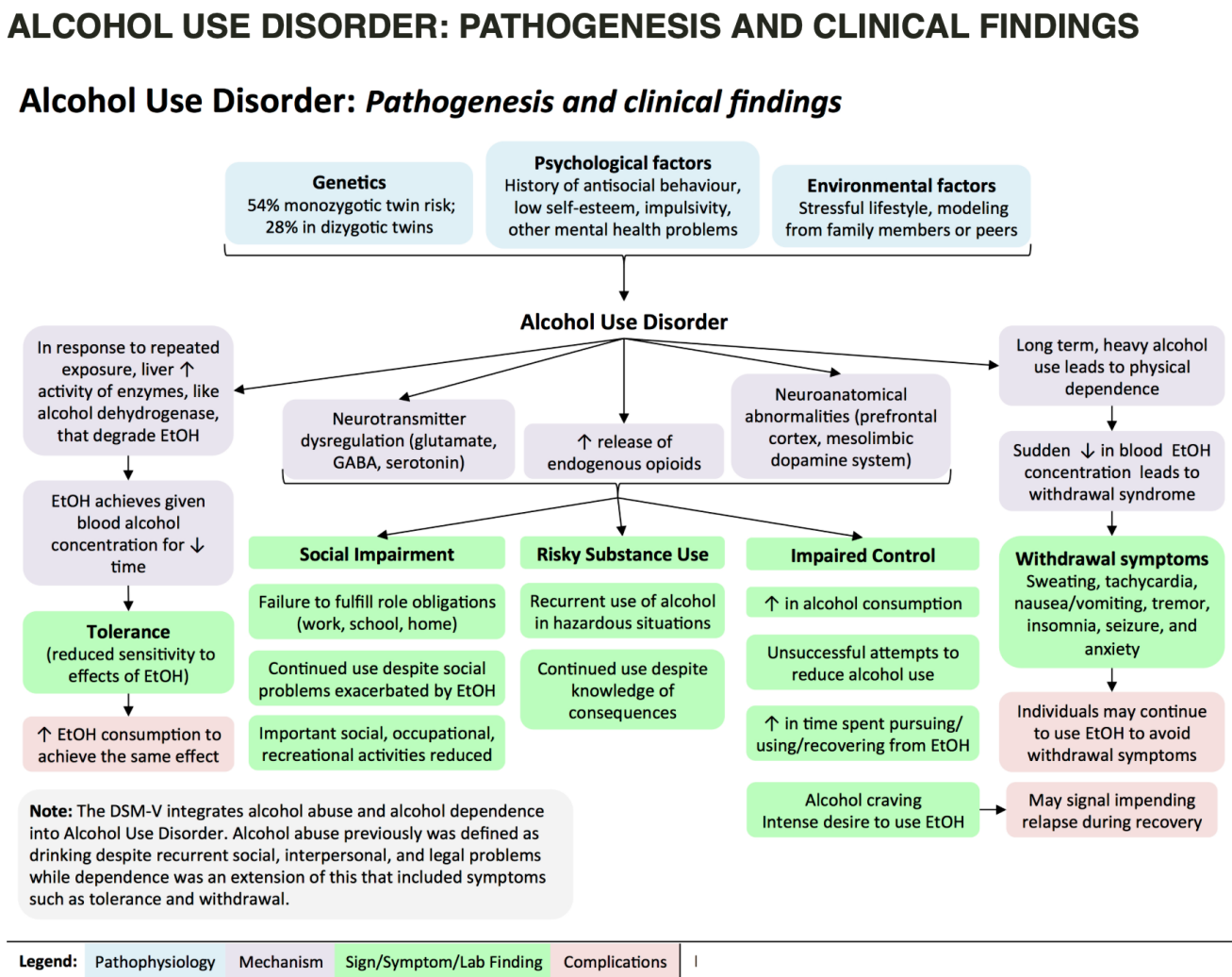
Long term health consequences of AUD ^[3]

1. **Heart:** Chronic alcohol use can damage heart causing dilated cardiomyopathy, irregular heartbeat as well as strokes.
2. **Liver:** Inflammatory changes in the liver affecting its ability to function producing complications like, steatosis, steatohepatitis, fibrosis and cirrhosis.
3. **Pancreas:** Pancreatitis.
4. **Cancer:** Different types of cancers like, mouth, stomach, oesophagus, throat, liver, breast.
5. **Vitamin deficiencies:** May be due to poor diet. This can lead to Wernicke-Korsakoff syndrome, which results from thiamine deficiency, another problems like vision changes, ataxia, impaired memory.
6. **Other:** Excessive alcohol use can end a person's life in an overdose often due to cardiac and pulmonary depression, to the point where a person might lose consciousness and simply stop breathing.

Diagnosis and assessment

BAC test is used to measure the amount of alcohol in sample of blood, commonly used for, legal evidence, employment, testing for alcohol poisoning, monitoring treatment for AUDS ^[10].

Recently, WHO have developed AUDIT to assess alcohol consumption and related problems, Using in primary healthcare settings. Another screening tools such as MAST and CAGE questionnaire, which can help in picking up alcohol problems. The CAGE consist of asking about whether the person has had difficulty cutting down, been annoyed by criticism about his drinking, experienced guilt because of drinking, or needed an eye opener, two or more 'yes' responses suggest problem with drinking ^[11].



According to DSM-5, if anyone meet any 2 of 11 criteria within the past year, considered of having AUD, Criteria are ^[12]

- Consuming more alcohol than intended.
- Being unable to cut down on alcohol use.
- Alcohol use take up lot of time.
- Have craving to use alcohol.
- Alcohol use affects responsibilities.
- Using alcohol even if it causes interpersonal problems.
- Giving up important activities in order to use alcohol.
- Using alcohol in physically dangerous situation (driving).
- Using alcohol even if its worsening a physical or psychological problem.
- Becoming tolerant to alcohol.
- Feeling withdrawal symptoms.

Standard management

Alcohol use disorder includes management of intoxication, detoxification, management of physical and psychological complications, motivating the person to change, medicinal intervention, psychosocial interventions including Behavioural counselling, psychotherapy, involvement of family and participation in support groups. Cognitive Behavioural therapy helps an individual to cope up with withdrawal as well as to navigate their triggers for craving. After care and prevention of relapse are critical components of care for dependence, as it is typically chronic disorder prone to relapse. Community based approaches, including

camp approach and self-help groups are useful strategies. Harm minimisation also a well recognised management strategies for difficult to manage cases. Another, broad approaches includes supply reduction and demand reduction may helpful in management of AUD. Most effective management is combination of individual and group therapy. As the end stage problems are more resistant to treatment, the focus needs to shift to early detection and intervention for alcohol-related-problems ^[11]. Much needed is; love, care and support from family and friends.

Homeopathic approach

Homeopathy is well known for treating cases of alcohol intoxication, de-addiction, and withdrawal conditions. it also works to cure underlying causes that inherited, acquired, emotional-psychological. Well taken case and proper repertorization with fully matched remedy effect the cure rapidly and gently even of long standing cases. According to the 6th edition of the organon of medicine, aphorism 221, an insanity or mania that suddenly breaks out as an acute disease in an otherwise calm and quite person although it is almost always due to internal psora busting out from it like a flame due to some exciting causes like fright, anger, alcoholic stimulant etc., yet when it occurs in this acute manner, it should not be straight away treated with deep anti-Doric remedies; instead these should first be treated by other class of proved medicines like aconite, belladonna, stramonium, hyoscyamus etc.; in highly potentised, minute doses as to overcome them to the point, where psora returns

to its former state^[13]. These diseases are psoric in primary stages but later on end up in syphilitic miasm as the pathology sets in^[14].

Therapeutics^[15-20]

Homeopathic materia medica is well equipped with lots of medicines for management of alcoholism.

- **Aconite:** Aconite used when only functional changes are there. Its action is brief, not to be used when pathology sets in. Used when patient having Physical and mental restlessness, does not want to be touched, sudden and great sinking of strength. Patient is constantly anxious, worried and delirious with great nervous excitability. Fear of death, even predict time of death and believes he will die soon. Restlessness, does everything in great haste, must change position quickly. Music is unbearable, makes his complaint worst. Feels as if he is totally in to a dream. Face become deathly pale with unstable gait often accompanied by vanishing of sight. Delusions and hallucination, imagines that some part of body is deformed and thinks that his thoughts comes from the stomach.
- **Belladonna:** Belladonna acts upon every part of nervous system. It's having mydriatic, antispasmodic, irritant and narcotic effect. When patient is having violent delirium, he behave like perverted individual, disposition to bite, strike, tear things. Delusions of wild animals, hideous faces and ghost. Excited from rage and anger, loud laughing and grinding teeth, hyperaesthesia of all senses, convulsive movements. He is acutely alive and crazed by flood of subjective visual impressions and fantastic illusions. Face is red, hot and flushed, throbbing carotid, glaring eyes, vertigo with sense of fall. Imaginary sense of smelling. Loss of appetite. Sleeplessness, kept awake by pulsation of blood vessels.
- **Nux vomica:** Excellent anti-alcoholic remedy for alcoholics who have rage anger, want faster relief from drinking problems. Start showing its effect within a month, especially suited to the patient who are under influence of alcohol. Hang over headache, in morning, sensation as if head would burst with congestion and pressure, which is especially gastric in origin. Other gastric complaints like sour, bitter eructation, bad taste, nausea, vomiting, constipation with frequent ineffectual urging. Also correspond to delirium tremens (severe withdrawals), in which even little noise frightens and having terrifying visions especially at night with no rest. Used to treat acute effects of binge.
- **Sulphuric acid:** Suited for chronic alcoholism, especially last stage whose body is weak, cold, pale, shrivelled, tremoring, unwilling to answer, stomach intolerant to food. Stomach feel cold and relaxed, which is relieved by warm application like whisky mixed with water. They are impatient in everything. Suited to sour breath and vomiting associated with alcoholic dyspepsia.
- **Arsenic album:** Helps to stop craving and reducing ill effect of excessive alcoholism. Covers restlessness, nervous weakness, fear of death, suicidal tendencies with delirium tremens and tactile hallucination with gastric troubles like heartburn, long-lasting eructation, gastralgia associated with dyspnea. Hallucination of sight and smell. Burning all over the body.
- **Lachesis mutus:** Body feels so congestive that can't bear anything tight anywhere. Correspond to congestive headache, haemorrhoids, complications like apoplexy or erysipelas. Person are so talkative and violent, jealous, envious, malicious, revengeful by nature. Delirium tremens with derangement of time sense.
- **Opium:** 'Depressant drug' slows down the message traveling between brain and body. Person feels euphoria, shallow-stertorous breathing, depressed and crying, restless, delirious with wide open eye but pupil constricted, drowsy-sluggish, hallucinations and illusions producing fright-terror with insomnia. Intoxication even after taking mild alcohol, especially for brandy drinkers.
- **Cannabis indica:** Effective for acute alcoholism, made from 'hashish' producing same intoxication. Stimulates imaginations, Delusions and hallucinations are exaggerated to upmost degree where all perception are conception. Dual nature state, where original self is under control of second self. Euphoric stage, where person feel extremely happy, lost in thought, uncontrollable laughter, conception of time, space, and place is gone, can't realise his identity, constantly theorising, active mind.
- **Agaricus mascarius:** Acts as intoxicant to brain, producing cerebral excitement and incoherent talking. Delirium characterised by singing, muttering, shouting, screaming, but doesn't answering to questions. Perception of relative size of objects is lost. In later stage of intoxication person become furious, confused, and depressed. Neuralgia as if icy cold needles run through nerves, trembling, twitching, jerking spasm. Vertigo, head is in constant movement.
- **Quercus-e-glandibus:** It antidotes effect of alcohol. It can take away craving for alcohol. Also in complications like liver-spleen enlargement, dropsy, giddiness, with gouty complaints.
- **Hyoscyamus nigar:** Useful in all stages of alcoholism. First comes in mind when delirium tremens strikes, delirium is constant, maniacal, quarrelsome, loquacious with lascivious nature. Convulsions with trembling, twitching, jerking cramp. Sexual excitement with desire to expose his private parts. Terrified dream make person wakes out of sleep. Constant insomnia with nervous agitation, outbreak of laughter accompanied by weeping, immodest gestures and expression. Picking at bed-cloths, plays with hands, reaches out for things. Constantly stare at surrounding objects.
- **Angelica:** In tincture, five drops three time daily, produces disgust for alcohol, dyspepsia, nervous trembling of body, sleeplessness, sensitive to noise and light.
- **Ranunculus bulbosus:** Corresponds to bad effect of alcohol, weak and unsteady patients, depression of spirit, desire to die. Delirium tremens, with hiccough, epilepsy from fright and vexation. Sensation of enlargement of head. Mother tincture is useful in delirium tremens.
- **Petroleum:** Suited to person who have tremulous weakness, low spirited with dimness of sight, delirium with sense of duality, thinks he is double, worried but don't know why, death seems near, loss of memory, lingering gastric and intestinal complaints.
- **Stramonium:** Suitable to habitual drunkards. Person is

loquacious, laughing, singing, swearing constantly. Sees ghost, hears noises, talks with spirits. Delusion about his identity, thinks himself tall and double. All hallucinations and illusions are producing terror. Delirium with desire to escape. Convulsions with twitching and trembling, staggering gait. Face is hot, red, blood rush, expression of terror.

- **Capsicum:** Useful in intense craving for alcohol in dipsomania, reduces agitation and tremor and induces calm sleep. Feeble digestion. Delirium tremens, with aching and jerking of muscles.
- **Syphilinum:** Covers inheritance to alcoholism. Great debility on waking. Antisocial, Feels as if going insane. Hopeless, despair of recovery. Sleeplessness and delirium at night.

There are many other remedies like veratrum alb, asarum europium, china, coca, strophanthus, sulphur, crotalus horridus, selenium, zinc met, calcarea are also useful to defeat ill effects of alcoholism.

Different repertorial aspect: ^[21-28]

1. Kent repertory

Mind-Dipsomania
 Mind-Dipsomania: drinking on the sly
 Mind-Dipsomania: menses, before
 Mind-Delusion: talking, time, exaggeration of
 Mind-Delusion: music, fancies he hears
 Mind-Delirium: drunkards, of
 Mind-Delirium: maniacal
 Mind-Mania-A-Potu
 Mind-Drinking after
 Mind-Stupefaction
 Mind-Stupefaction, wine, after
 Vertigo-Alcoholic liquors
 Vertigo-Beer after
 Generalities-Drunkards
 Generalities-Alcoholic stimulants

2. BCCR repertory

Mind-Alcoholism, intoxication, etc
 Mind-Alcoholism, intoxication, etc., easy
 Mind-Delirium, tremens
 Mind-Drunken, besotted, as if
 Abdomen-Aggravation: beer after
 Abdomen-Aggravation: drinking
 Nausea and Vomiting-Aggravation: drunkards, in
 Flatulence-Aggravation: beer after
 Fever-Circulation: pulse, aggravation, beer from
 Aggravation and amelioration in general-
 Drunkards (topers), agg.

3. BTPB Repertory

Mind-Intellect: delirium
 Mind-Intellect: stupefaction
 Aggravations-Drinkers, for hard (old toppers)

4. Synthesis repertory

Mind-ailments from: alcoholism
 Mind-Alcohol: agg
 Mind-Alcoholism: acute
 Mind-Alcoholism: Withdrawal from, to support the
 Mind-Alcoholism: hereditary
 Mind-Alcoholism: sleeplessness; with

Mind-Alcoholism: irritability, with
 Mind-dipsomania
 Mind-drunkenness: symptoms during
 Mind-libertinism
 Mind-Delirium tremens
 Mind-Delirium: alcoholic
 Mind-Delirium: drunkards
 Mind-Drinking alcohol; complaints after
 Mind-Intoxication
 Mind-Stupefaction
 Generals-Alcoholism
 Generals-Family history of- alcoholism
 Generals-Food and drinks: alcoholic drinks, desire
 Generals-Food and drinks: alcoholic drinks, ailments
 Generals-Intoxication, after
 Generals-Alcoholic stimulants
 Stomach: Appetite, diminished, drunkards; in

5. Murphy repertory

Mind: Alcoholism, dipsomania
 Mind: Delirium tremens
 Delusion: Tactile hallucinations
 Diseases: Torpor
 Generals: Alcohol, general
 Toxicity: Alcohol, beer agg
 Toxicity: Alcohol, liquor, agg
 Toxicity: Alcohol, wine, agg
 Toxicity: Alcohol, desires, alcohol
 Toxicity: Alcoholism, general, dipsomania
 Toxicity: Delirium tremens, mania-a-potu

6. Phatak repertory

[A-Z] Alcoholism- acute
 [A-Z] Alcoholism- Later
 [A-Z] Alcoholism- Later, recurrent
 [A-Z] Alcoholism- delirium tremens
 [A-Z] Delirium- tremens, dipsomania

7. Complete repertory

Mind-Alcoholism: dipsomania
 Mind-Alcoholism: dipsomania, agg
 Mind-Alcoholism: dipsomania, children, in, of alcoholic
 Mother
 Mind-Alcoholism: dipsomania, withdrawal, to help
 Mind-Alcoholism: dipsomania, weakness of character, from
 Mind-Delirium tremens, mania-a-potu
 Mind-Delirium tremens, mania-a-potu, hypochondriasis
 MIND-Delusions, imaginations; tactile

8. Knerr repertory

Sensorium-Intoxication (drunkenness), ailments from
 Sensorium-Intoxication (drunkenness), glass of wine or
 beer; from a
 Mind and Disposition- [D] Delirium tremens
 Eating and Drinking-Drinking, alcoholic liquors
 Eating and Drinking-Drinking, ale
 Eating and Drinking-Drinking, beer
 Eating and Drinking-Drinking, brandy,
 Stages of Life and Constitution-
 Habit, Drunkards

Conclusion

That's how homeopathy ensure that person will relieve from suffering completely with minimal chances of recurrence

and giving promising results in both addiction as well as withdrawal condition of alcoholism. Various studies had been conducted to validate homeopathic intervention as compared to standard allopathic treatment even though more studies are desired. Besides of this it is very important to universalise the minimum age of drinking and also a need to break the social stigma related alcoholism, so that people who want to give up alcohol can openly seek help.

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