CLINICAL PRACTICE

The treatment of alcohol dependence — new horizons

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The fact that alcohol is an addictive drug has been known to man for millennia. Alcohol abuse/dependence is the most common substance-related disorder.[1] A drug can be defined as a substance that produces tolerance (increasingly large amounts are needed to produce the same effect) and withdrawal (psychological and physical distress develop after substance use ceases). The addicted person suffers both a craving for the sensation of intoxication, and the phenomenon of physical dependence (tolerance and withdrawal). Alcohol is such a substance.

A not-so-silent epidemic?

Approximately 50% of people can drink alcohol socially without sustaining any harmful bio-psycho-social effects. If you study this 50%, it becomes clear that they drink relatively small amounts and infrequently. The flip side of this statistic implies that 50% of those who drink are in danger of suffering some bio-psycho-social loss. Epidemiological studies of alcohol dependence are difficult for obvious reasons. Five to ten per cent of people worldwide fulfil the criteria for alcohol dependence during a lifetime.[1] Alcoholism therefore represents an enormous psychosocial dilemma in our community. It affects not only individuals, but also their families and the whole of society. Consider the burden of fetal alcohol syndrome, broken families, unemployment, violence and the enormous medical costs to society. The medical community frequently avoids dealing with, or ignores this acquired dependency disorder. Note that no person would deliberately set out to become addicted to alcohol. Even though alcoholics may vehemently deny that they are dependent, they are still painfully aware of their condition. It is extremely important that the therapist should recognise this disease, acknowledge it, and actively treat it, since it is eminently treatable.

There are tips that can help people to avoid intoxication:

- Consume no more than one drink (e.g. one 340 ml beer or equivalent) per hour
- Never drink on an empty stomach
- Stop at two, definitely three drinks
- Pour your own drinks
- During protracted dinners or functions, drink a glass of water between drinks
- Refuse to drive after three drinks
- Get into the habit of designating a non-drinking driver or take a taxi.

It does run in the family

People who are more vulnerable to developing alcohol dependence include:

- People who start to drink at an early age
- Those who claim to be able to 'handle' their liquor
- Persons who regularly become intoxicated (more than three drinks, three times a week or more)
- 'Bingers' (those who experience recurring bouts of uncontrolled drinking behaviour)
- Persons with a strong family history of alcohol dependence.

A simple way to test for the presence of dependence is by means of the following four questions from the CAGE questionnaire:

- Have you ever felt you ought to **C**ut down?
- Have people **A**nnoyed you by criticising your drinking?
- Have you ever felt **G**uilty about your drinking?
- Have you ever taken an **E**ye-opener?

An affirmative response to any of these questions indicates an underlying alcohol problem. In clinical practice, when the diagnosis is made, it should be communicated to the patient, always with the message that help is at hand and that the disorder can be treated successfully. Why? Nobody deliberately sets out to become addicted to alcohol. This fact should be emphasised at the start in order to build on the motivation of the patient to enter into treatment.

Why do people become alcohol dependent?

Alcohol is a drug (as evidenced by the development of tolerance and withdrawal symptoms). People drink for the physical and psychological effects it has on them. Alcohol stabilises the mood, alleviates tension, and reduces tiredness,

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anger, shyness, frustration and the effects of the daily setbacks and disappointments of life. Alcohol offers temporary escape from all of these. It calms people down, helps them to forget, and produces short-lived relief. Herein, however, lies the great danger — it is precisely because alcohol has such an effect on one's life that the habit of using alcohol so easily becomes repetitive. Over time, it develops into a pattern, a lifestyle, and an unhealthy crutch on which to lean. There are stressors that every individual in our society must face, plus there may be very personal stressors. In fact when one thinks about it there are enough stressors and therefore reasons around for everybody to 'use' alcohol as an escape. The fact that it is 'normal' to drink in our society strengthens the drinking behaviour indulged in to relieve stress. Alcohol dependence may also result from a genetic predisposition since it plainly occurs in certain families.[3] Persons in whom genetic factors are operative are typically male, have begun to drink large amounts of alcohol at an early age, have a clear family history of alcoholism and have often manifested antisocial tendencies in their adolescent years. Even if there is a genetic predisposition, it is important to remember that alcohol dependence is ultimately an acquired condition. A young person with a clear family history of alcoholism ought to be extra vigilant regarding the use of alcohol. It is old news that people who boast that they can 'take' their drink are actually the ones who eventually develop dependence.

Once the patient is dependent, it becomes very difficult to 'just stop', as society would like the addict to do. The patient has become dependent on the 'escape' into alcohol intoxication, afraid of the unknown sober lifestyle, afraid of possible withdrawal symptoms, unable to admit to his/her own 'weakness' or loss of control. He/she escapes the problem of addiction yet again by intoxication, becoming trapped within his/her illness. Once trapped within his/her addiction the only way to keep the drinking behaviour going is by means of empty promises of sobriety, at times angry threats, denial, rationalisation, projection, minimalisation and intellectualisation. The therapist would consider the above defence mechanisms as signifying poor or no motivation. Therapists become disillusioned and so frequently 'turn a blind eye' to the mood of the patient.

Treatment

Although important, primary prevention and the promotion of healthy drinking habits will not be discussed here.

Treatment has two components: one, the proper management of alcohol withdrawal, and two, rehabilitation as an out/inpatient. Alcohol problems in practice need to be detected and confronted early on. Confrontation means: 'I care about you and that is why I am confronting you with the facts.' The doctor must relate any signs and symptoms (e.g. gastritis) to the cause (i.e. alcohol), and offer assistance. Follow this with further questioning in an empathic and accepting way, always furnishing the patient with facts, and the way forward.

Patients often regard themselves as victims of external circumstances, and frequently seem to be manipulative. Real (internal) motivation to maintain sobriety comes only after treatment. Psycho-education is extremely important. Get the patient to think about the factors standing in his/her way of sobriety, possible results of continued drinking and positive changes that might occur if he/she were to abstain. Treatment is at hand and has proved in many cases to be successful. If a doctor were to confront a patient persistently, honestly and empathically, provide psycho-education, and offer assistance, he or she should eventually reach a breakthrough in the treatment of the alcohol-dependent patient. Determine whether the patient requires inpatient or outpatient detoxification. Uncomplicated detoxification can be performed on an outpatient basis, but complicated withdrawal should be carried out in a hospital. A long-acting benzodiazepine such as diazepam 5 mg two to three times a day for 5 days should be prescribed. Always add thiamine 100 mg twice daily for 10 days. Because alcohol has a short half-life the patient may use up to 30 mg of diazepam per 24 hours early in withdrawal and taper this over the remaining days. If the patient has a history of withdrawal delirium (delirium tremens or DTs) or is compromised by physical disorders, hospitalise and treat accordingly. Diazepam should not become a substitute for alcohol. Carbamazapine may replace diazepam for the detoxification process, but diazepam is inexpensive and readily available. If after detoxification the patient is unable to maintain the sober lifestyle, not mere sobriety, he/she should be referred for in/outpatient treatment.

It is very important that you make an effort to motivate the patient to agree to further treatment. Provide the patient with positive feedback that the first phase of successful restoration to health has been achieved, but that the therapeutic process is only now ready to begin. Initially, one can also make use of family, friends, the employer and other support networks to 'motivate' the patient to seek treatment.

The possible alternatives to further rehabilitation include a short (4 - 6-week) inpatient rehabilitation programme, an outpatient rehabilitation programme, community-based self-help programmes (e.g. Alcoholics Anonymous) and community-based self-help programmes for family members of addicts. These are voluntary options, and their outcomes depend largely on the doctor's initial success in motivating the patient. Inpatient rehabilitation is the treatment of choice for those patients who have forgotten what it is like to be sober, and who have demonstrated that they cannot remain sober in the community. Outpatient therapy in the form of network therapy can be very successful. Outpatient network therapy, as described by Galanter,[4] is based on a network that includes the therapist, the addict and a close significant other or supporting person. In this manner, therapy occurring in the consulting

room can be monitored continuously outside. The dependent person becomes 'connected' to an outside support system, thereby preventing isolation. Once the patient has completed the rehabilitation programme, follow-up is of the utmost importance. Severe and protracted relapses can be prevented through regular contact with the doctor, encouragement, positive reinforcement, and assistance with obstacles in the path of sobriety and the prompt management of relapse.

As an adjunct to the rehabilitation process, pharmacotherapy for alcoholism is becoming a reality.[5] New exciting pharmacotherapeutic possibilities, challenging the neurobiological origin of addiction as well as the neuronal changes brought on by the addiction process, have become a reality in contemporary medicine. Old and new pharmacotherapy in the field of addiction can make positive contributions to rehabilitation programmes and should always go hand in hand. Pharmacotherapy for alcohol addiction after detoxification includes the following:

Disulfiram (Antabuse 400 mg), dosage 200 mg/day (1/2 tablet): During the first stage of sobriety, patients often still feel very unsure of themselves and may therefore readily accept disulfiram if it is offered to them. Disulfiram can be effective if used according to the following procedure: the patient takes disulfiram first thing in the morning, while motivation for abstinence is still high. Now the patient knows that he or she will certainly not be able to drink, because alcohol would cause severe physical discomfort, such as palpitations, headaches, abdominal cramps, nausea, dizziness and flushing for 30 - 60 minutes. Disulfiram blocks acetaldehyde dehydrogenase, causing acetaldehyde, which produces physical discomfort, to accumulate. Patients must be thoroughly instructed regarding the mode of action of disulfiram, and must use it of their own free will. Disulfiram remains an external motivator. It should not be given without informed consent from the patient. This form of aversive therapy can be very effective, but only when combined with an ongoing good doctor-patient relationship.

Naltrexone (ReVia 50 mg): Naltrexone is an opioid antagonist. It may be useful to administer an opiate antagonist while the person is still drinking.[6] The opiate antagonist blocks dopamine/endogenous opiate positive reinforcement, with resulting decrease in drinking behaviour. If intoxication loses its 'kick' or secondary 'endorfine' effect, the person should drink less. This may pave the way towards the decision to stop drinking, and sobriety. Naltrexone can only be successful as an adjunct to psychotherapy within a treatment programme. In South Africa ReVia is registered for the treatment of opioid addiction. On day one use 25 mg naltrexone. If there are no signs of opiate withdrawal then use naltrexone 50 mg/day (average dose 50 - 100 mg/day). It can also be prescribed as 100 mg every second day. Contraindications for use are opiate dependence, liver failure, hepatitis, and opiate analgesic/anti-cough use.

Acamprosate (Besobrial 333 mg): The process of alcohol addiction can be explained by a slow neuro-adaptation. These changes are protracted and sometimes permanent. Long-term alcohol abuse upregulates NMDA (N-methyl-D-aspartate) receptors in the glutamate system and downregulates GABA (gamma-aminobutyric acid) receptors. This leads to ongoing craving (return of old drinking stimuli). Acamprosate, with a chemical structure similar to that of amino-acid neuro-mediators, may repair the amine system, thus alleviating craving and helping the patient to maintain sobriety.[7] It would therefore make sense that once the addict achieves sobriety, he/she could be helped by curbing the ongoing craving with the use of acamprosate. It must be stressed that acamprosate can only be of benefit within an ongoing rehabilitation programme between therapist and patient. Acamprosate 333 mg two tablets three times a day should be prescribed for 6 - 12 months. The drug must be swallowed whole, and is well tolerated and safe. It should not be given to patients with severe liver disease or impaired renal function, and it has not been proved safe during pregnancy and breast-feeding Besobrial has proved itself to be an effective drug in combination with ongoing psychotherapy for alcohol dependence within the doctor-patient relationship.

Anti-epileptic drugs. Anti-epileptic drugs have been used in the treatment of alcohol withdrawal. In theory these drugs could 'substitute' for alcohol and reduce the symptoms of ongoing craving. Carbamazepine, gabapentin, valproic acid and now topiramate have been shown to reduce alcohol consumption. Topiramate, like alcohol, inhibits excitation at the glutamate level and enhances GABA-nergic activity, thus mimicking the action of alcohol, while not resulting in abuse.[8] The use of anti-epileptic drugs for the treatment of alcohol addiction is not standard practice at this time.

For too long society and therapists have looked the other way. Addicts are trapped within their illness. Their denial only reiterates their hopelessness within this illness. We should challenge this illness and use all the effective 'tools' of treatment available to us, be this early confrontation, the kind-but-firm approach, always promoting the success and availability of treatment, making appointments, and following through on therapy with compassion and energy.

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