Psychopharmacology for the Clinician
Psychopharmacologie pratique

To submit questions for this regular feature, please send them to the Journal of Psychiatry & Neuroscience*, CMA Media Inc., 1867 Alta Vista Dr., Ottawa ON K1G 3Y6, Canada; fax 613 729-9545; jpn.office@sympatico.ca. Please include details of any relevant case and your name, address, telephone and fax numbers as well as your email address.*

What are the treatment options for comorbid alcohol abuse and depressive disorders?

Alcohol, probably one of the oldest mood-enhancing drugs discovered by humans, can induce depression. Levels of serotonin (5-HT) and its metabolites are low in some brain regions of alcohol-preferring rats and in the cerebrospinal fluid of people with alcohol dependence. Enhancing 5-HT neurotransmission reduces alcohol consumption in rats; in humans this intervention sometimes lessens depression and may contribute to the treatment of alcohol abuse.

A careful history is the first step, to establish chronology, category of depression and subtype of alcohol abuse.

Determining the relative chronology of alcoholism and depression is important. Most people with alcohol dependence who enter treatment, for instance in randomized trials, have high scores on depression rating scales. These ratings typically decline after a few weeks of either abstinence or normalized consumption. Therefore, the diagnosis of comorbid depression, and any associated treatment plan, must be withheld during this period, to determine if depressive symptoms are secondary to the alcohol abuse.

In cases where the depressive symptoms are primary, alcoholism has often developed in the course of attempts at self-medication. In this situation, the category of depression (e.g., dysthymia, major depression, bipolar disorder, subsyndromal mood disturbance) must be determined.

Finally, the subtype of alcohol dependence or abuse must be identified, as this information is important for treatment planning. Type I alcohol dependence is typically of late onset, occurring in both men and women with no family history of alcohol or other drug abuse, and no familial or personal antisocial traits. However, more psychosocial factors are involved, and the prognosis is better than for type II dependence. Type II alcohol dependence is typically of early onset and occurs mostly in men with a family history of alcoholism, more severe progression of the disorder, and personal and familial antisocial traits; response to treatment is generally poorer than for type I.

Once comorbidity of alcoholism and depression has been clearly established, 2 symptoms of the depressive spectrum require special attention. The risk of suicide among people with both conditions is higher than among people who do not abuse alcohol. Suicide is often impulsive and facilitated by intoxication. Insomnia occurring in these patients may last for months after they initiate abstinence and is a predictor of relapse.

Alcohol dependence has as its essential characteristic impaired control over the use of alcohol and occurs because of changes in synaptic plasticity within the pathway underlying craving. The neurobiologic concomitants of depression contribute to this impairment and increase the risk of relapse.

Several modes of pharmacologic treatment are available:

- Naltrexone, a mu receptor antagonist, reduces craving by attenuating the rewarding effects of alcohol. Its results are somewhat inconsistent.
- Acamprosate (recently approved by the US Food and Drug Administration) blocks negative craving due to abstinence. Beneficial effects in preventing relapse have been consistent in many large studies.
- Selective serotonin reuptake inhibitors are more effective for the depressive component than for alcohol consumption. They seem to improve outcome by treating the underlying depression rather than by changing drinking behaviour per se.

In addition, special mention must be made of ondansetron (16 μg/kg twice daily), a 5-HT_3 antagonist, for the more "biologic" subtype of alcoholism (type II above). It has influenced favourably both depressive symptoms and alcohol consumption in several studies, in particular when combined with naltrexone. The duration of treatment must be left to the clinician's judgement, as it has not been specified in the published clinical trials. Interestingly, ondansetron has no significant effect in type I alcoholism, which is usually more accessible to psychosocial treatments.

Psychosocial and psychotherapeutic approaches — always provided in conjunction with pharmacologic therapy — include cognitive–behavioural therapy, which has proven effective for both depression and alcohol dependence, and the general strategies of motivational interviewing, which maximize the chances of lasting results.

Maurice Dongier, MD
Department of Psychiatry
McGill University
Douglas Hospital Research Centre
Montréal, Que.

Competing interests: None declared.

The information in this column is not intended as a definitive treatment strategy but as a suggested approach for clinicians treating patients with similar histories. Individual cases may vary and should be evaluated carefully before treatment is provided.