REVIEW ARTICLE

Early intervention for alcohol problems

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SUMMARY. Despite awareness of the wide variety of clinical and laboratory abnormalities associated with alcohol abuse, drinking problems often remain undetected in clinical practice. There is increasing evidence that problem drinking can be successfully treated by brief intervention. The general practitioner is in a good position to identify patients who drink excessively, and to intervene with brief counselling at an early stage when prognosis is more favourable. A practical strategy is described for diagnosis and intervention that could be readily implemented in clinical practice.

Introduction

THE recognition of alcoholism as a major health and social problem has prompted calls for action from the medical profession in the United Kingdom,[1,2] United States[3] and Canada.[4] Medical management of alcohol-related disorders has focussed on tertiary prevention, where limited impact has been achieved in terms of reduced morbidity and mortality.[5-7] Alcohol availability and cost have been repeatedly identified as determinants of increased alcohol consumption in western society. Legislation which controls the availability of alcohol, and a taxation policy that maintains a high cost of alcohol relative to the consumer price index would be an effective preventive measure.[8-11] However, the implementation of controls on access to alcohol is largely a political decision.[12] The medical profession must accept some responsibility for confronting alcoholism, but by what method?

New initiatives have been called for in helping people who misuse alcohol.[13] The early detection of alcohol abuse is one strategy that has received increased recognition and research support.[14-17] The general practitioner is often in a good position to identify patients who drink excessively but who do not consider themselves as 'alcoholics'. General practitioners may intervene with brief counselling at an early stage when prognosis for recovery is more favourable. The basic strategy is to take action before the patient has developed major symptoms of alcohol dependence,[18,19] since there is a better prognosis with socially stable individuals at earlier stages of problem drinking.[20] This approach is consistent with the call for less intensive, but more focussed interventions for alcohol problems.[21,22]

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Do physicians avoid the detection and treatment of alcohol abuse?

It is commonly believed that alcoholics may deny or minimize the presence of drinking problems. This situation is compounded by some physicians who engage in their own form of denial.[23] General practitioners may be reluctant to raise the issue of excessive drinking when it is suspected as a determinant of the patient's clinical signs and symptoms. Such a passive attitude may have resulted from pessimism about the chances of success in treating alcoholism.[24] Rubington[25] has portrayed the situation as a game of 'hide and seek'. Although the hiders (alcohol abusers) and seekers (physicians) may engage in the game either actively or passively, evidence to date suggests that both participants tend to adopt a passive role. One study of physician-patient contacts revealed that patients were usually willing to describe concerns about their drinking habits, but they were not likely to do so spontaneously.[26] Instances were found where the physician failed to pursue signs and complaints related to alcohol abuse. An extreme case was reflected by the comment that 'alcoholism is a serious problem here and something will have to be done about it, but not by me!'

There is evidence that a large number of cases of alcoholism pass unrecognized, often owing to the lack of recording an adequate drinking history.[27] In one study, the chief medical officers failed to detect ap-

proximately half of the alcoholics attending the emergency ward.[28] Another study in Edinburgh[29] found that 32 per cent of patients attending the emergency department of a district general hospital had a blood alcohol level that exceeded 17.4 mmol/l (80 mg/100 ml). In addition, adult pedestrians with a blood alcohol concentration exceeding 17.4 mmol/l had over a threefold increase in relative risk of sustaining injuries in road traffic accidents.[30] Because of the association between excessive drinking and traumatic injuries, the hospital emergency department presents a prime location for the detection of alcohol abuse. However, these busy departments often lack a clear policy and adequate resources for the assessment and follow-up of patients with suspected drinking problems.[29] Clinical studies have found that alcoholics require almost twice the amount of diagnostic radiology,[31] and that problem drinkers consult their general practitioner at a higher rate than average.[32]

Although excessive drinking can result in a wide spectrum of clinical disorders, many of these abnormalities are evident only after an individual has a prolonged history of alcohol abuse.[17,33] The more promising biochemical markers of excessive drinking, such as gamma-glutamyl transpeptidase (GGT) and mean corpuscular volume (MCV), have only moderate diagnostic sensitivity in ambulatory populations, and these tests may return to normal following a short period of abstinence or a significant reduction in alcohol consumption.[17] Recent studies[34-37] have shown that diagnostic accuracy can be enhanced by the combined use of laboratory tests. In a comparison of laboratory tests and questionnaire data,[38] the best laboratory test detected only a third of alcoholics, whereas three brief interviews each identified nine out of 10 alcoholics. The authors concluded that the brief interviews, which take about one minute, have considerable potential for routine screening among patients.

Given the findings that brief questionnaires may be useful for the identification of alcohol abuse, one might question why a diagnostic instrument such as the CAGE[38] is not given routinely as part of a diagnostic medical history. The CAGE is an acronym derived from questioning whether the patient feels a need to *C*ut down on drinking, is *A*nnoyed by criticism of his/her drinking, feels *G*uilty about drinking, and ever drinks first thing in the morning (*E*ye-opener). It is increasingly recognized that the systematic use of brief questionnaires, consideration of laboratory tests (for example, GGT, MCV) and recording of blood alcohol levels among emergency service patients would result in the identification of many patients who misuse alcohol. The Advisory Committee on Alcoholism[39] has pointed out that health care professionals frequently lack knowledge about how to deal with alcohol-related disorders and they often feel uneasy when in contact with problem drinkers. By inference, the apparent dilemma may have less to do with the accuracy of screening tools, and more to do with knowledge of effective strategies for dealing with problem drinkers once they have been identified.

1. *Emphasize early identification*
   - Socially stable individuals at earlier stages of problem drinking have a better prognosis
2. *Conduct a systematic assessment*
   - Examine patterns of alcohol and drug use
   - Assess the degree of alcohol dependence
   - Review medical history and psychosocial functioning
3. *Engage in a single counselling session*
   - Review assessment findings with patient and family
   - Present evidence of physical damage related to drinking (for example, raised GGT, MCV)
   - Emphasize responsibility of the patient and family for working on goals
   - Set drinking goals (abstinence or moderation)
   - Set goals if in other key areas
   - Refer (if needed) to other agencies or professionals
4. *Provide self-help manuals*
   - Prescribe steps to stop drinking or control drinking
   - Provide guidance in other areas (for example, stress management)
5. *Conduct periodic follow-up*
   - Ask patients to keep a daily drinking log
   - Monitor physical indicators of heavy drinking (for example, GGT level)
   - Review progress on goal attainment
   - Refer (if needed) to other agencies or professionals

Figure 1. *Basic strategy for patients with alcohol problems.*

Basic strategy for dealing with problem drinkers

Recent evidence suggests that brief advice by physicians or allied health workers is an effective and practical intervention for many alcohol abusers.[22] Moreover, an intriguing demonstration of the potential impact of collective efforts by physicians was given by a study of advice against smoking.[40] Rather than increasing the success rate among those who attempted to stop smoking, the main effect of advice in this study was to cause more patients to try to reduce or cease smoking. Similarly, the primary impact of brief counselling with patients who misuse alcohol may be to motivate a higher proportion of patients to cut down on their alcohol use. Hence, there would appear to be ample justification for the growing interest in selective screening for alcohol abuse in hospital and general practice.[41]

Figure 1 outlines a basic strategy for diagnosis and intervention in patients who have drinking problems. This approach could be readily implemented in general

practice and hospital settings. The vital elements are to have systematic procedures for case identification and assessment,[16,17,42-45] to employ a brief counselling intervention[21,46,47] that may be conveniently used in busy clinical settings, to supplement the brief counselling with self-help manuals[48,49] to engage in a systematic follow-up of cases[50] at regular intervals (say, every three months), and to have available a backup referral mechanism for patients who do not respond favourably to brief intervention or for patients who require a more intensive level of treatment.[51,52] Given time constraints of a busy general practice, it may be more practical to enlist the help of a practice nurse or social worker. This strategy is consistent with the primary level role of general practitioners recommended in a report by the Advisory Committee on Alcoholism.[53] Where possible, problem drinkers should be helped by health professionals in their general roles. The report also emphasizes the need for each community to establish a team with specialist skills (secondary level) in the treatment of alcoholism that would provide consultation and specialized treatment as a backup resource.

Although approximately 5 per cent of the male population meet selected diagnostic criteria of alcohol dependence (major symptoms of withdrawal and impaired control over drinking), many people have 'drinking problems' without dependence.[54] Indeed, the prevalence of non-dependent alcohol abuse has been estimated at between 15 and 35 per cent of the male population.[55] This larger group would appear to be the logical target for secondary prevention. Problem drinking tends to be more prevalent among young males, where alcohol-related disorders such as traumatic injuries are often linked to acute episodes of intoxication. Elsewhere, we have reviewed psychosocial indicators of earlier manifestations of heavy drinking,[16] as well as considered various clinical and laboratory features[17] that are potentially more sensitive for detecting early stages of problem drinking. A practical recommendation is to assess patients with the indicators listed in Figure 2. The larger the number of abnormalities revealed by such an assessment, the higher the likelihood of alcohol abuse. Routine use of brief questionnaires, such as the MAST or CAGE,[42] is highly recommended especially in the light of their good diagnostic accuracy relative to laboratory tests.[38]

With individuals at earlier stages of problem drinking, the physician may consider recommending a reduction in alcohol consumption levels on a trial basis (moderation drinking strategy) as an alternative to total abstinence.[56] This approach should be more attractive to younger patients for whom the prospect of total abstinence may be perceived to be more adverse than the consequences from continued alcohol misuse. Studies relating to the alcohol dependence syndrome[18] have provided evidence that controlled drinking goals may be considered with less dependent individuals, whereas abstinence goals are suitable for the more severely dependent.[19,57,58] A randomized trial of treatment versus brief advice[22] found at the two year follow-up that non-dependent alcohol abusers achieved better results from the one session of advice than from intensive inpatient/outpatient treatment.[57] The opposite was evident for physically dependent patients who achieved better results from intensive treatment than from brief advice. Thus, a careful assessment of the degree of alcohol dependence[18,19] may be crucial in deciding when

Figure 2. *Checklist of possible early indicators of alcohol abuse.*

Psychosocial factors

Heavy drinking, often has more than six drinks per day (> 80 g/d ethanol)

Concern about drinking by self or family or both

Intellectual impairment, especially of abstracting and adaptive abilities

Eating lightly or skipping meals when drinking

Drinks quickly; increased tolerance

Accidents in which drinking is involved

Tardiness or absence from work because of drinking (hangover)

Most friends are heavy drinkers; most leisure activities involve drinking

Attempts to cut down on drinking have had limited success

Frequent use of alcohol to deal with stress, anxiety, depression

Frequent drinking during the working day (for example, at lunch break)

Heavy smoker

Laboratory tests

GGT: elevated serum gamma-glutamyl transpeptidase (except in patients with nonalcoholic liver disease and those taking other drugs)

MCV: macrocytosis without anaemia, also sensitive to smoking habits

BAL: random blood alcohol level greater than 80 mg/dl

Clinical symptoms and signs

Trauma

Scars unrelated to surgery

Hand tremor

Alcohol fetor by day

Dyspepsia

Morning nausea and vomiting

Recurrent diarrhoea

Pancreatitis

Hepatomegaly

Polyuria

Impotence

Palpitations

Hypertension

Insomnia; nightmares

a brief intervention may be appropriate, as well as for deciding when moderation of drinking may be recommended.

The counselling session should begin with detailed feedback concerning the patient's current health status, as well as the potential risks of future health problems if heavy drinking continues. When the patient is married, involvement of the spouse may be advantageous since social and family support may determine successful outcome. The presentation of evidence of physical damage caused by drinking (for example, raised GGT levels owing to abnormal liver functioning) provides a biofeedback mechanism which might be useful in motivating patients to alter their alcohol consumption. Then, the discussion could focus on defining a set of goals regarding problems identified during the assessment, and on developing strategies for meeting these goals. The use of self-help manuals[48,49] with problem drinkers has been found to be of value in assisting them to maintain the gains that they made during initial intervention. One study found relatively few differences in effectiveness between self help and therapist-administered versions of a behavioural treatment for problem drinkers.[59] Self-help manuals should thus be viewed as an important adjunct to the brief counselling session.

A final component of the basic strategy is the implementation of routine follow-up contacts. This follow-up is vital for monitoring and reinforcing success toward goal attainment, and for demonstrating the continuing concern of the physician in the patient's progress. One study[50] achieved good compliance by offering their patients half-hour consultations with the same physician every three months, and monthly appointments with the same nurse. Serum GGT levels were measured monthly and this biofeedback was given to patients along with a reminder to moderate their alcohol intake.

Conclusion

The traditional approach to alcoholism that is adopted by many physicians may alleviate discomfort and arrest the progression of alcohol-related diseases. However, it is less likely to have an impact on the root of the drinking problem, which usually necessitates a change in lifestyle.[60] A model of care for alcoholism that deals primarily with the physical consequences of excessive drinking has achieved limited success in curtailing the prevalence of alcohol abuse. Physicians' efforts might be far better rewarded by systematic programmes for selective medical screening combined with brief counselling and follow-up. The cumulative impact of this approach should result in a greater number of cases undergoing a low-cost intervention at earlier stages of their drinking problems when prognosis is clearly more favourable. A concerted application of early intervention by the medical profession could be more effective than any forseeable political action in reducing the prevalence of alcohol abuse.

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