

CASE HISTORIES AND SHORTER COMMUNICATIONS

Alcohol abuse among clinically anxious patients

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Summary—Of 156 patients meeting DSM-III criteria for either agoraphobia with panic attacks, panic disorder, simple or social phobia, or generalized anxiety disorder, 27 (17.3%) were found to score in the alcoholic range (≥ 5) on the Michigan Alcoholism Screening Test. This pattern of alcohol abuse was primarily associated with the diagnosis of agoraphobia. Agoraphobic patients with a concurrent affective disorder were especially prone to abuse alcohol.

INTRODUCTION

“Wine drunk with an equal quantity of water puts away anxiety and terrors” Hippocrates, *Aphorisms*

The tension-reduction theory of alcohol abuse (Cappell and Herman, 1972) has received indirect support from studies of the potential concordance between alcohol abuse and the anxiety disorders. Most of these studies have examined diagnosed alcoholics who were subsequently evaluated for the presence of a clinical anxiety disorder. For example, in a study of 102 alcoholics consecutively admitted to an English hospital, Mullaney and Trippett (1979) found that one-third were clinically rated as having disabling agoraphobia and or social phobia, and another third were rated as borderline agoraphobic or socially phobic. These clinical ratings were confirmed by questionnaire and self-report symptom scales, and the onset of the phobic disorder was found to significantly precede the onset of alcohol-related problems. More recently, Smail, Stockwell, Canter and Hodgson (1984) found that 32 of 60 diagnosed alcoholics were suffering from mild ($n = 21$) to severe ($n = 11$) agoraphobia or social phobia. Almost all of these phobic patients reported that their alcohol use was exacerbated in phobic situations. Twenty-four of these alcoholic patients with at least a moderate degree of agoraphobia and/or social phobia were selected for in-depth interviews assessing the developmental history of the alcoholism and the anxiety disorder (Stockwell, Smail, Hodgson and Canter, 1984). The median reported age of onset for the phobic disorders was 28 yr, whereas the median reported age of onset of problem drinking was age 30 yr.

Of 84 inpatient alcoholics studied by Weiss and Rosenberg (1985), 19 (23%) met criteria for one or more of the DSM-III anxiety disorders. As in the previous studies, a majority of these anxious patients (12) reported that the onset of regular drinking followed the onset of the anxiety disorder.

Another method to study the relationship between alcohol abuse and anxiety is to examine the prevalence of alcohol abuse among patients with a primary diagnosis of one of the anxiety disorders. Quitkin, Rifkin, Kaplan and Klein (1972) described 10 anxious patients addicted to alcohol, sedative drugs or both. These authors reported that most alcoholics with a history of anxiety attacks or phobias respond well to pharmacological treatment (e.g. imipramine) targeted to anxiety and they clearly suggested that in such cases an anxiety disorder precipitates alcoholism. Munjack and Moss (1981) questioned phobic patients as to a possible family history of alcoholism in first-degree relatives, and found a positive family history for 27% of agoraphobic probands, 20% of socially phobic probands and 9% of 35 probands with simple phobias. In a recent study on the prevalence of alcohol abuse among 254 agoraphobic outpatients, Bibb and Chambless (1986) found that 21% of their sample scored ≥ 5 on the Michigan Alcoholism Screening Test (MAST; Selzer, 1971), reflective of probable alcoholism. Although analyses of the mean ages of onset for alcohol problems and agoraphobia indicated that alcohol problems preceded agoraphobia, respondent-by-respondent comparisons indicated that the agoraphobia came first in 56% of the 22 identified alcoholic agoraphobics. Major depression was common in both alcoholic (77%) and nonalcoholic (52%) agoraphobics. Data on the patterns of alcohol abuse for patients with other anxiety disorders was not presented.

There thus appears to be a consistent finding that agoraphobic and socially phobic individuals are predisposed toward the development of concurrent alcohol abuse. Such studies lend credence to the social anxiety model of alcoholism proposed by Kraft (1971) and Klein's (1980) contention that

“Once we began to distinguish among panic attacks, anticipatory anxiety, and chronic anxiety, we understood the patients' use, and frequent abuse, of sedatives and alcohol. These agents reduce anticipatory anxiety, but are useless against the spontaneous panic... The patients, finding some relief of their anticipatory anxiety from alcohol, follow an implicit, quantitative, continuity theory and drink that much more to deal with their panic, which may induce an escalation into alcoholism or sedative abuse.”
(p. 413)

In the absence of appropriately controlled prospective studies, this hypothesis about the chronological relationship between alcohol abuse and anxiety disorders remains speculative. Given that *post hoc* studies of patients who have already developed

such disorders remains a primary tool in investigations of this nature, we attempted to replicate these earlier findings with a broader range of anxiety-related diagnoses evaluated in this manner.

METHOD

Subjects

A total of 156 consecutive patients meeting the DSM-III criteria for agoraphobia with panic attacks, panic disorder, simple or social phobia, or generalized anxiety disorder were administered the MAST as a component of their evaluation and diagnostic screening at the Anxiety Disorders Program at the University of Michigan Hospitals. The sample consisted of 66 agoraphobic patients (52 females), 49 panic disorder patients (37 females), 12 simple phobics (8 females), 11 social phobics (5 females) and 18 patients meeting criteria for generalized anxiety disorder (12 female). The mean age (and standard deviation) was 36.6 yr (10.5) for the agoraphobics, 38.6 yr (12.3) for the patients with panic disorder, 35.6 yr (11.8) for the simple phobics, 38.6 yr (17.5) for the social phobics and 43.0 yr (13.5) for the patients with generalized anxiety disorder. A one-way ANOVA performed on these mean ages [$F(4, 151) = 1.14; P = 0.33$] did not demonstrate significant differences.

RESULTS

A score of ≥ 5 on the MAST is considered symptomatic of problematic drinking (Selzer, 1971). As reviewed by Bibb and Chambless (1986), with a cutoff score of ≥ 5 , the MAST identifies 97–100% of diagnosed alcoholics (Boyd, Derr, Grossman, Lee, Sturgeon, Lacoek and Bruder, 1983) and corresponds well (78% agreement) with a psychiatric diagnosis of alcoholism (Moore, 1972). After categorizing each patients MAST score as ≤ 4 or ≥ 5 , a χ^2 -analysis revealed that a significantly higher proportion of agoraphobic patients in this study scored in the alcoholic range (see Table 1).

The mean MAST scores (and standard deviations) were as follows: agoraphobia with panic attacks, 6.03(11.42); panic disorder, 1.16(2.29); simple phobia, 2.33(5.71); social phobia 3.36(3.82); and generalized anxiety disorder, 1.00(2.16). A one-way ANOVA [$F(4, 151) = 3.31; P = 0.012$] demonstrated significant differences in these mean MAST scores, when stratified by diagnostic group. Scheffé *post hoc* comparisons found that the agoraphobics' scores were significantly higher than those of patients diagnosed with panic disorder or generalized anxiety disorder ($P = 0.001, P = 0.01$, respectively). None of the other comparisons achieved statistical significance.

Nine of our 66 patients with a primary diagnosis of agoraphobia with panic attacks were diagnosed as having a concurrent affective disorder, either major depression or dysthymic disorder. These 9 depressed agoraphobics were found to have a mean MAST score of 10.55(16.31), leaving the remaining 57 nondepressed agoraphobics with a mean MAST score of 5.31(10.47). *Post hoc* Scheffé comparisons revealed that the depressed agoraphobics' MAST scores were statistically significantly higher ($P < 0.05$) than those for patients with simple or social phobia, panic disorder or generalized anxiety disorder. Nondepressed agoraphobics' MAST scores continued to be statistically significantly higher than those of patients with panic disorder or generalized anxiety disorder. A comparison of the mean MAST scores for the depressed and nondepressed agoraphobics just excluded chance expectations ($P = 0.06$).

DISCUSSION

Our results replicate the findings of earlier studies reporting a greater than expected likelihood for anxious patients to abuse alcohol. More specifically, we found that this vulnerability primarily occurs among patients suffering from agoraphobia and that agoraphobic patients with a concurrent affective disorder accounted for a large proportion of this difference. Unlike previous studies we failed to find an appreciable risk for socially phobic patients to abuse alcohol. This may be due to the relatively small number of social phobics ($n = 11$) in our sample.

In an earlier comparative study conducted between 20 agoraphobics with panic attacks and 20 panic disorder patients we found that agoraphobics reported a significantly greater frequency of alcohol use than the panic patients (Thyer, Himle, Curtis, Cameron and Nesse, 1985), and for the panic patients to more frequently report periods of remission from anxiety symptomatology. Data from our present study thus leads us to suggest that this pattern of increased alcohol use by agoraphobics may result in their eventually experiencing significant problems in drinking, up to and including alcoholism. In terms of the DSM-III criteria for agoraphobia with panic attacks and panic disorder (APA, 1980), the only difference between patients with these conditions is in the massive degree of phobic restrictions associated with agoraphobia. It would seem from our current data that the experience of frequent episodes of apparently spontaneous panic attacks alone is not sufficient to induce a vulnerability to alcohol abuse. Rather the precipitant for abusive drinking may lie in the polyphobic nature of agoraphobia. One hypothesis worth further investigation is that the periodic remissions of anxiety symptomatology associated with panic disorder may protect the patient from developing either the extensive avoidance behaviors characteristic of agoraphobia or becoming an abusive drinker.

The apparently low vulnerability for alcoholism by patients with simple phobia, while incompatible with earlier anecdotal and correlational studies (Calef, 1967; Curlee and Stern, 1973; Ross, 1973) is consistent with recent controlled experimental studies demonstrating that ethanol intoxication does not provide relief from the anxiety associated with simple phobia (Thyer and Curtis, 1984; Cameron, Curtis, Liepman and Thyer, 1986).

These findings add to the growing body of research documenting a greater than expected concordance between alcoholism and anxiety-related disorders. Alcoholics undergoing diagnostic evaluation should be carefully screened for the presence of a concurrent anxiety disorder. Likewise, the clinician treating anxious patients should be alert for the signs and symptoms of alcohol abuse.

Table 1. Abusive drinking patterns of anxious patients, by diagnosis

Mast score	Diagnosis				
	Agoraphobia with panic attacks	Panic disorder	Simple phobia	Social phobia	Generalized anxiety disorder
$\leq 4^a$	49 (73%)	45 (92%)	11 (92%)	7 (64%)	18 (90%)
$\geq 5^b$	18 (27%)	4 (8%)	1 (8%)	4 (36%)	2 (10%)

$\chi^2 = 10.80, P = 0.02$.

^aNonalcoholic range'; ^balcoholic range'.

Chambless, Foa, Groves and Goldstein (1979) found that the use of the CNS-depressant drug Brevital reduced the effectiveness of exposure therapy with agoraphobics. Research from our clinic indicates that ethanol (another CNS-depressant agent) intoxication likewise impedes the progress of exposure therapy with simple phobics (Cameron *et al.*, 1986), although an ultimately favorable outcome was not impaired. Such studies add experimental evidence in support of the clinical observation of Marks (1985) that alcohol-abusive phobic patients need to be weaned from their use of alcohol prior to initiating a course of therapeutic exposure.

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