Alcoholism and Affective Disorder: Clinical Course of Depressive Symptoms

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Objective: *This study compared the severity of and the change in depressive symptoms among men with alcohol dependence, affective disorder, or both disorders during 4 weeks of inpatient treatment.* *Method:* *After their primary and secondary psychiatric disorders were defined with the use of criteria based on chronology of symptoms, 54 unmedicated men entering treatment for alcohol dependence or affective disorder were assessed for 4 consecutive weeks with the Hamilton Depression Rating Scale.* *Results:* *The findings indicate that the rate of remission of depressive symptoms was consistent with the primary diagnosis. Depressive symptoms remitted more rapidly among the men with primary alcoholism than among those with primary affective disorder. However, a minimum of 3 weeks of abstinence from alcohol appeared to be necessary to consistently differentiate the groups with dual diagnoses on the basis of their current depressive symptoms. Alcohol dependence occurring in conjunction with primary affective disorder did not intensify presenting depressive symptoms or retard the resolution of such symptoms.* *Conclusions:* *Diagnoses of alcohol dependence and affective disorder based on symptom chronology appear to have prognostic significance with respect to remission of depressive symptoms in men with both diagnoses. Depressive symptoms of dysphoric mood, dysfunctional cognitions, vegetative symptoms, and anxiety/agitation showed different rates and levels of remission across the primary diagnostic groups.*

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Alcohol dependence and depression are a prevalent combination of psychiatric disorders among persons seeking treatment. Weissman et al. (1) reported that 70% of alcoholics meet criteria for another psychiatric diagnosis at some point during their lifetimes and that 50% of those with a history of alcohol abuse or dependence also meet criteria for major depression or bipolar affective disorder. More recently, in a report from the Epidemiologic Catchment Area program, Regier et al. (2) confirmed a high concordance for alcohol and affective problems. Among subjects with a lifetime history of alcohol abuse or dependence, 36.6% had a history of psychiatric comorbidity and 13.4% had a history of affective disorder. These disorders clustered together at a rate approximately two times higher (odds ratio=1.9) than would be expected relative to the prevalence of each disorder in the general population. Similarly, among those with a history of affective disorder, 21.8% met the DSM-III-R criteria for alcohol abuse or dependence at some point in their lives (odds ratio=1.9); and among those with bipolar affective disorder, the comorbidity for an alcohol diagnosis was 81.6% (odds ratio=3.7).

Using an alternative diagnostic approach incorporating the chronology-based primary-secondary diagnostic distinction (3–6), several studies (7, 8) have found that the highest psychiatric comorbidity for persons with alcohol abuse or dependence appears to be affective, anxiety, and antisocial personality disorders. Of note, alcohol disorders and these psychiatric disorders have significantly higher rates of comorbidity in clinical samples than in community samples (2, 9). Thus, it is not surprising that clinicians in psychiatric settings and alcohol treatment programs are frequently faced with the difficult task of diagnosing and treating individuals presenting with both alcohol problems and depressive symptoms.

Since transient psychiatric symptoms are often preva-

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lent and severe during the intoxication and withdrawal phases of the use of psychoactive substances (5, 10, 11), we have argued that depression and anxiety-related diagnoses based on current symptoms should rarely be made prior to 4 weeks of abstinence from alcohol. Unfortunately, clinicians are frequently required to make differential diagnoses early in treatment, when it is not at all clear whether the alcohol-depression relationship can be adequately differentiated. These decisions are typically made on the basis of self-reported clinical history and presenting symptoms. To this end, it is particularly important to ascertain whether symptom chronology is related to rate of depressive symptom resolution and, in the absence of such information, what duration of abstinence or observation is necessary for making diagnostic distinctions, so as to predict whether affective symptoms will remit or require specific treatment.

Early diagnostic distinctions regarding comorbid alcoholism and affective disorders are important for several reasons. First, if a major depressive disorder and alcohol abuse or dependence are present, additional clinical services may be required to manage both acute and chronic aspects of each disorder (12–14). Alcohol-dependent individuals with such comorbid psychiatric disorders have disproportionately more severe pathology and a more extensive history of problems (10, 15–17), as well as reduced personal and familial resources to manage these additional problems (18, 19). A second reason to make early diagnostic decisions is that among those with an affective disorder, concomitant alcohol dependence is likely to reduce the efficacy of and compliance with treatment. Third, in general, psychiatric comorbidity appears to be associated with poorer clinical course for both the alcoholic patient and the patient with affective disorder (14, 20).

This study sought to compare sequentially the depressive symptoms of subjects with a single disorder (alcohol dependence or affective disorder) and those with both disorders. In particular, the primary-secondary distinction in psychiatric disorders, based on symptom chronology, was used to ascertain whether the severity and type of depressive symptoms evident among persons seeking treatment of either alcohol or depression problems varied across these diagnostic groups. We hypothesized that this primary-secondary distinction would be predictive of differential rates of remission of depressive symptoms. In addition, we examined when in the course of treatment various types of depressive symptoms could be expected to abate as a function of primary diagnosis.

METHOD

Subjects

The study group included 54 unmedicated Caucasian male subjects, one-half of whom were admitted to the alcohol and drug treatment program at the San Diego Veterans Affairs (VA) Medical Center and one-half of whom were admitted to the Mental Health Clinical Research Center, located in the same wing of that hospital. All men recruited from the alcohol and drug treatment program were screened and evaluated as part of the VA Medical Center Alcohol Research Center and were independently diagnosed as having primary alcoholism (A group) by a psychiatrist using the DSM-III criteria for alcohol dependence and the Research Diagnostic Criteria (21) for alcoholism. Twelve of these 27 men with primary alcoholism also met the DSM-III criteria for lifetime diagnosis of secondary major affective disorder (A/AD group) because of having had one or more depressive episodes during periods of drinking and no major depressive episode prior to the onset of alcoholism. Subjects recruited from the Mental Health Clinical Research Center were unmedicated throughout hospitalization and met the DSM-III criteria for primary affective disorder (AD group: major depression or bipolar affective disorder, currently depressed); 12 of these participants with primary affective disorder also met the DSM-III criteria for a current secondary diagnosis of alcohol dependence that had developed after the onset of their affective disorder (AD/A group). Men with antisocial personality disorder, drug dependence, and/or another DSM-III axis I diagnosis predating their alcoholism or affective disorder were excluded from the study. Those who were severely medically impaired, had significant hepatocellular injury (based on enzyme measures), lived more than 50 miles from the hospital, or had no relative or close friend to confirm their history and clinical course were also excluded from the study. While none of the participants dropped out of the study, one person from each group missed one of the four weekly assessments of depressive symptoms, and group mean substitution was used for these data.

To control for the potential influence of length of abstinence and sociodemographic characteristics on the presentation and persistence of depressive symptoms, the patients with primary alcoholism and those with primary affective disorder were selected from larger pools of research subjects from both clinical research sites so as to have groups that were comparable in age, socioeconomic status, marital status, level of education, length of abstinence, and time in treatment.

The background characteristics and drinking and drug-use histories of the four groups are shown in table 1. The mean age at which the criteria for alcoholism were met, defined as age at the time of the first major life problem caused by drinking, tended to be earlier for the A/AD and AD/A groups than for the A group ($F=3.80$, $df=1, 34$, $p<0.06$). None of the AD group patients met criteria for alcohol dependence at any point in their lives. Heavier alcohol consumption was reported by the three groups with an alcohol diagnosis (15.25–28.50 days per month) than the group with primary affective disorder (<1 day per month); thus, only modest alcohol consumption was evidenced by the AD group. Although primary drug abusers were excluded from the study, a majority of each group (range=53.33%–75.00%) reported experimentation with drugs other than alcohol, but not drug dependence, during their lives and only modest recent use (less than once per week in the 3 months prior to treatment). The groups had been abstinent for an average of 8.5 days (SD=2.0) prior to admission to the units.

Procedure

Men entering the alcohol and drug treatment program at the VA Medical Center at San Diego were screened by the Alcohol Research Center staff within 48 hours of admission. A structured clinical interview (22) was used to gather demographic information, medical history, and personal and family history of alcohol abuse and psychiatric disorders. Detailed information was obtained regarding past and present drinking and drug use, age at onset, major life problems related to alcohol or drugs, and the occurrence and prevalence of alcohol withdrawal symptoms. The structured clinical interview contains some questions comparable to those in the Schedule for Affective Disorders and Schizophrenia (SADS) specific to affective disorders. It has queries bearing on the primary and secondary diagnostic distinctions for depression, including age at onset, major life problems related to depression, and the occurrence of depressive symptoms during periods of drinking as well as during periods of abstinence. A separate and confidential interview was conducted with a resource person (relative or close friend) designated by the male veteran to corroborate current status and lifetime psychiatric history (22). Interview

TABLE 1. Demographic Characteristics and Alcohol/Drug-Use Histories of Groups of Male Patients With Alcoholism, Affective Disorder, or Both Disorders

Characteristic	Primary Alcoholism (A) (N=15)	Primary Alcoholism With Secondary Affective Disorder (A/AD) (N=12)	Primary Affective Disorder (AD) (N=15)	Primary Affective Disorder With Secondary Alcoholism (AD/A) (N=12)
Age (years)				
Mean	52.33	44.33	52.47	44.50
SD	12.41	12.56	12.36	13.12
Score on Hollingshead index of socioeconomic status				
Mean	54.33	52.08	52.71	52.42
SD	14.20	12.18	11.64	17.40
Marital status				
Married (%)	33.33	16.67	33.33	0.00
Single (%)	13.33	25.00	6.67	16.67
Separated/divorced/widowed (%)	53.33	58.33	60.00	83.33
Education				
Less than high school (%)	0.00	8.33	7.14	16.67
High school/General Equivalency Diploma (%)	53.33	75.00	42.86	66.67
Technical training (%)	20.00	8.33	28.57	8.33
College degree (%)	26.67	8.33	21.43	8.33
Drinking/drug-use history				
Age at onset of alcoholism (years)				
Mean	42.53	34.08		34.80
SD	13.60	8.97		13.86
Number of days per month drinking				
Mean	23.80	28.50	0.27	15.25
SD	8.42	3.12	0.80	11.51
Number of drinks per drinking day				
Mean	17.33	17.50	0.40	6.50
SD	14.11	7.72	1.06	3.92
Ever used drugs (%)	66.67	75.00	53.33	66.67
Number of different drugs tried				
Mean	1.53	2.33	1.47	2.17
SD	1.68	2.10	2.20	2.41

data from the patient and the resource person and hospital records were reviewed by a psychiatrist to determine primary and secondary diagnoses. Patients with a concomitant psychiatric diagnosis predating the onset of their alcohol dependence that might significantly alter the clinical presentation or course of depressive symptoms during treatment (e.g., antisocial personality disorder, schizophrenia) were excluded from the study. Using an individual matching procedure, we selected the subjects with alcoholism only (A group) from a larger pool of Alcohol Research Center participants to serve as matches in age, marital status, socioeconomic status, level of education, and length of hospitalization for the patients with primary affective disorder only (AD group). Similarly, A/AD group subjects were selected as matches for their dual-diagnosis counterparts (AD/A group).

The subjects selected from the Mental Health Clinical Research Center were diagnosed as part of the research protocol with the use of the SADS and also underwent the structured clinical interview (22). Once again, separate and confidential interviews were conducted with each designated resource person. All data were reviewed to determine primary and secondary diagnoses. Patients meeting the DSM-III criteria for major depression or bipolar affective disorder, currently depressed, were included in the study provided there was no other axis I psychiatric disorder (e.g., schizophrenia) or axis II antisocial personality disorder predating the onset of depression.

The severity of depressive symptoms of each research participant was evaluated weekly with the 24-item Hamilton Depression Rating Scale (23, 24). This structured clinical interview with good sensitivity and specificity in both alcoholic and depressed populations (25) was administered by research assistants who were trained to criterion and were blind to previous scores and secondary diagnoses; the mean interrater reliability was 0.94. Assessments were made initially within 48 hours of the screening interview and continued at weekly interviews (7 days±1 day) over a 4-week period. While opinions on the cutoff score vary, Hamilton depression scores ≥20 are characteristic of clinically depressed patients, typically requiring antidepressant medication (26).

The depressive symptoms measured by the Hamilton depression scale have been shown to cluster into four content domains: dysphoric mood, vegetative symptoms, depressive or dysfunctional cognitions, and anxiety/agitation (23, 24, 26, 27). The four-factor solution has been demonstrated to be essentially the same among alcoholic patients and patients with affective disorders (28). Items included on each content scale used in the data analysis are listed in appendix 1.

To evaluate whether the diagnostic groups differed in severity of and change in depressive symptoms, repeated measures analysis of variance (ANOVA) was conducted. To determine when various types of depressive symptoms could be used successfully to discriminate the groups with dual diagnoses, univariate ANOVAs with post hoc Scheffé tests were conducted.

RESULTS

As can be seen in table 1, the primary affective disorder and primary alcoholism groups, including those with secondary diagnoses, were comparable on demographic variables. As anticipated, subjects with two current diagnoses evidenced slightly different characteristics than those with a single axis I diagnosis. The majority of the men had a high school education, and 47% of the A group and 50% of the AD group had received a college or technical training degree. The dual-diagnosis groups (A/AD, AD/A) had lower proportions of participants with advanced educational training (17%). The two primary groups were comparable on socioeconomic status as measured by the 1965

TABLE 2. Sequential Hamilton Depression Rating Scale Scores of Groups of Male Patients With Alcoholism, Affective Disorder, or Both Disorders

Diagnostic Group	Hamilton Depression Score		Patients With Elevated Scores[a]	
	Mean	SD	N	%
Primary alcoholism (A) (N=15)				
Week 1	15.73	7.12	7	47
Week 2	9.93	6.43	2	13
Week 3	10.40	5.62	2	13
Week 4	8.07	3.26	0	0
Primary alcoholism with secondary affective disorder (A/AD) (N=12)				
Week 1	16.17	3.90	2	17
Week 2	12.08	5.55	1	8
Week 3	7.92	4.72	0	0
Week 4	5.92	3.68	0	0
Primary affective disorder (AD) (N=15)				
Week 1	27.38	8.73	13	87
Week 2	25.46	7.21	12	80
Week 3	22.67	9.89	8	53
Week 4	23.00	9.96	10	67
Primary affective disorder with secondary alcoholism (AD/A) (N=12)				
Week 1	23.82	6.42	9	75
Week 2	21.92	8.54	6	50
Week 3	19.45	7.34	5	42
Week 4	20.40	6.50	8	67

[a]Score ≥20.

Hollingshead index. A majority of both the patients with primary alcoholism and the patients with primary affective disorder were divorced, widowed, or separated (56% and 70%, respectively). Subjects across the four diagnostic categories were not significantly different in any of the sociodemographic characteristics just mentioned.

To evaluate differences in symptoms and changes in depressive symptoms, the Hamilton depression scale total scores were calculated for each of the four groups and examined using a repeated measures ANOVA. Group means at each of the four time points are presented in table 2, along with the proportion of each group who had Hamilton depression scores ≥20 at each time point.

As can be seen in table 2, while portions of each diagnostic group (17%–87%) had elevated Hamilton depression scores at intake, the primary alcoholic groups (A and A/AD) did not have such scores at week 4, whereas two-thirds (67%) of the patients with primary affective disorder (AD and AD/A groups) still had elevated Hamilton depression scale scores.

Inequality of covariance in the Hamilton depression scores across groups was determined (variance proportional to the mean). Consequently, a square root transformation was performed and a repeated measures ANOVA was conducted on the transformed Hamilton depression scores. The ANOVA results for transformed scores revealed a significant group effect ($F=22.04$, $df=3, 50$, $p<0.001$) and significant time effect ($F=29.80$, $df=3, 150$, $p<0.001$). In general, total Hamilton depression scores decreased significantly over the 4 weeks, and the Hamilton depression scores of the subjects with primary alcoholism were lower than those of their matched counterparts with primary affective disorder. In addition, the Group by Time interaction reached significance ($F=3.53$, $df=9, 150$, $p<0.01$), with greater reductions in Hamilton depression scores in the groups with primary alcoholism (A group: 49%; A/AD group: 63%) than in the groups with primary affective disorder (AD group: 16%; AD/A group: 14%).

To examine the pattern of changes in the four types of depressive symptoms (i.e., mood, vegetative, cognitive, and anxiety/agitation) for the groups, a repeated measures ANOVA was conducted on each symptom type for the four diagnostic groups across the assessment time points. Post hoc Scheffé tests were used to determine when the two dual-diagnosis groups could be distinguished from each other on the basis of each type of depressive symptoms. The significance level was set at $p<0.003$, with Bonferroni corrections to control for type I error. The pattern of results is depicted in figure 1.

Univariate ANOVAs of scores on the dysphoric mood subscale of the Hamilton depression scale indicate that group differences existed at all four time points ($F=8.51$, $df=3, 50$, $p=0.0003$; $F=15.85$, $df=3, 50$, $p<0.0001$; $F=9.70$, $df=3, 50$, $p<0.0001$; and $F=22.87$, $df=3, 50$, $p<0.0001$, for weeks 1, 2, 3, and 4, respectively). Scheffé post hoc tests were used to provide conservative estimates of group mean differences. Results of the post hoc analysis indicated that at week 1, the group with alcoholism only (A group) had a significantly lower subscale score than both of the groups with primary affective disorder (AD and AD/A). At weeks 2, 3, and 4, both groups with primary alcoholism (A and A/AD) had significantly lower dysphoric mood scores than both primary affective disorder groups (AD and AD/A). Dysphoric mood scores appeared to go down rapidly and consistently among the patients with primary alcoholism, including those with secondary affective disorder, but to diminish in less pronounced fashion among the patients with primary affective disorder.

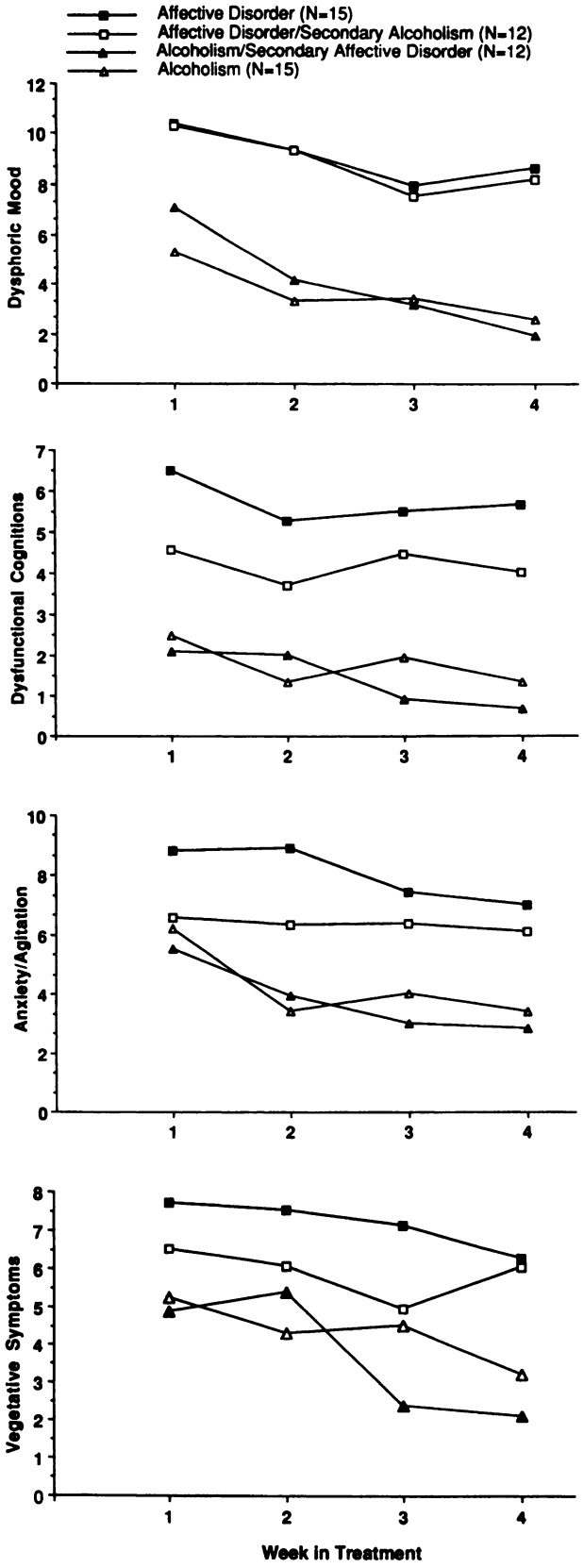
Next, ANOVAs revealed group differences at time points 1–4 on the dysfunctional cognitions subscale of the Hamilton depression scale ($F=10.17$, $df=3, 50$, $p<0.001$; $F=7.40$, $df=3, 50$, $p=0.0003$; $F=10.19$, $df=3, 50$, $p<0.0001$; and $F=16.41$, $df=3, 50$, $p<0.0001$, respectively). Post hoc Scheffé tests showed that at all times, the group with affective disorder only (AD) had significantly higher scores on dysfunctional cognitions than both of the primary alcoholism groups (A and A/AD). At weeks 3 and 4, the group with the dual diagnosis of primary affective disorder and alcoholism (AD/A) had higher dysfunctional cognition scores than the group with the dual diagnosis of primary alcoholism and affective disorder (A/AD). At week 4 both groups with primary affective disorder (AD and AD/A) had significantly higher dysfunctional cognition scores than both

of the groups with primary alcoholism (A and A/AD). It is notable that the group with affective disorder only (AD) had consistently higher scores on this dimension than the group with primary affective disorder and secondary alcoholism (AD/A).

Similarly, the univariate ANOVAs for the mean scores on the anxiety/agitation subscale of the Hamilton depression scale showed significant group differences at weeks 2, 3, and 4 ($F=15.41$, $df=3, 50$, $p<0.0001$; $F=7.54$, $df=3, 50$, $p=0.0003$; and $F=10.24$, $df=3, 50$, $p<0.0001$, respectively). Post hoc analysis indicated that at weeks 2, 3, and 4, the group with affective disorder only (AD) had significantly higher anxiety/agitation scores than both of the primary alcoholism groups (A and A/AD). At weeks 3 and 4, the patients with primary affective disorder and secondary alcoholism (AD/A) experienced significantly greater anxiety/agitation than the patients with primary alcoholism and secondary affective disorder (A/AD). As shown in figure 1, anxiety and agitation symptoms had their greatest reduction from week 1 to week 2 for the men with primary alcoholism and between week 2 and week 3 for those with primary affective disorder.

Statistically significant group differences in scores on the vegetative symptoms subscale of the Hamilton depression scale were identified only at week 4 ($F=6.71$, $df=3, 50$, $p=0.0007$). Post hoc analysis showed that the group with primary alcoholism and secondary affective disorder (A/AD) had significantly fewer vegetative symptoms than both of the affective disorder groups (AD and AD/A). Furthermore, as can be seen in figure 1, both the group with primary alcoholism and the group with primary affective disorder also showed the slowest abatement of symptoms on this subscale.

FIGURE 1. Mean Scores on Hamilton Depression Rating Scale Subscales of Men With Affective Disorder Only, Alcoholism Only, and Both Disorders



DISCUSSION

This study demonstrated that even when the groups were matched demographically, men with primary alcoholism, regardless of secondary affective disorder, displayed marked reductions in their depressive symptoms compared to men with primary affective disorder throughout a 4-week inpatient treatment program. The patients with primary alcoholism evidenced a 49%–63% reduction in Hamilton depression scale scores by the fourth week of treatment (5 weeks of abstinence), whereas there was a 14%–16% reduction in these scores among the unmedicated patients with primary affective disorder. Thus, although the depressive symptoms of men presenting with alcohol dependence and current affective disorder may be indistinguishable at entry into inpatient treatment, chronology-based diagnoses are associated with differential rates and patterns of remission of depressive symptoms. In general, the men with primary affective disorder displayed more severe and more persistent depressive symptoms than the men with primary alcoholism.

A second, more preliminary finding was that among the primary alcoholism and primary affective disorder

groups, each type of depressive symptom had a unique rate of change. Specifically, mood symptoms, which were highly prevalent in all of the groups of men, changed most rapidly among those with primary alcoholism and were significantly fewer than they were among the groups with primary affective disorder by the second week of treatment (3 weeks of abstinence). In contrast, the unmedicated men with affective disorder displayed little if any change in mood despite 4 weeks of hospitalization. The rapid reduction in mood-related symptoms of male subjects with primary alcoholism is consistent with previous findings (10).

Dysfunctional depressive cognitions, as measured by the Hamilton depression scale, were not useful in differentiating the patients with primary alcoholism from those with primary affective disorder until week 3 or 4 of treatment (4–5 weeks of abstinence). While the primary alcoholism groups consistently had lower mean scores on the cognitive subscale of the Hamilton depression scale, there was considerable variability in the manifestation of cognitive symptoms within all groups. It is particularly notable that a secondary diagnosis was not associated with exacerbations in the dysfunctional cognitive symptoms of depression among either the patients with primary alcoholism or those with primary affective disorder. Qualitative differences not measured in this study may exist in the content of cognitions across diagnostic groups. For example, other studies have demonstrated marked differences in the content of cognitions typical of various forms of psychopathology, such as depressive disorders compared with anxiety disorders (29, 30). Use of alternative assessment procedures (e.g., the Beck Depression Inventory, the Beck Hopelessness Scale) might allow for better clarification of this domain of depressive symptoms.

Similarly, these preliminary findings suggest that agitation/anxiety symptoms may not be useful in differentiating men with primary alcoholism from men with primary affective disorder until 4 or 5 weeks of abstinence. These symptoms appear to abate most rapidly in alcoholic patients within the first 2 weeks of abstinence, which may reflect the resolution of symptoms related to alcohol withdrawal. Clearly, the majority of alcoholics display considerable anxiety symptoms during drinking and withdrawal episodes (11, 31), and such symptoms typically abate within 4 weeks of abstinence. However, the scores on the anxiety subscale of the Hamilton depression scale of the men with primary affective disorder and secondary alcohol dependence did not change significantly over the course of 4 weeks of hospitalization.

Vegetative symptoms appeared to be the slowest to diminish in all groups; 5 weeks of abstinence were required for statistical discrimination. While vegetative symptoms have been considered a hallmark of affective disorder, it is becoming increasingly evident that alcohol dependence also provokes substantial persistent vegetative symptoms. For example, in other research in our laboratories, persistent sleep abnormalities have been identified among subjects with primary alcoholism (32). Furthermore, persons with primary alcoholism and secondary depression show objective sleep abnormalities commonly found in patients with primary depression, including short REM latency (33) and loss of stage 3 and stage 4 sleep.

Consistent with previous research and clinical experience, it may be difficult to differentiate depression secondary to alcohol dependence from primary affective disorder with secondary alcohol dependence on the basis of clinical presentation without knowledge of the chronology of symptom development or a period of abstinence from alcohol by the patient. Clearly, severe depressive symptoms may be evident even among alcoholics with no lifetime diagnosis of major depression. Findings from the present study suggest that the chronology-based primary-secondary diagnostic distinction has prognostic significance for the clinical course of depressive symptoms among patients diagnosed with alcohol dependence and major affective disorder. As we have previously suggested, it does not appear that psychotropic intervention is typically necessary for primary alcoholics to alleviate initial depressive symptoms accompanying abstinence (10). However, the depressive symptoms of unmedicated men with primary affective disorder remained elevated despite hospitalization and continued abstinence from alcohol.

A number of considerations temper interpretation and generalizability of the findings of this study. To control for potentially confounding medical problems and to ensure reliability in the diagnostic process, the groups we compared excluded men with major health problems and those without substantial social contacts. Thus, persons with more serious health problems or with more depleted social resources may evidence greater severity of depressive symptoms or more protracted symptoms than we found in this study. The single-diagnosis and dual-diagnosis groups were selected so as to be matched on length of abstinence, age, ethnicity, education, and socioeconomic status. This restrictive matching process allowed for more direct comparisons of depressive symptoms across the groups but may have resulted in reduced generalizability to the groups of origin. Different levels of symptoms and patterns of recovery would be expected in randomly selected men with alcoholism and those with affective disorders. This possibility is highlighted by the fact that among the groups with primary alcoholism, mean initial Hamilton depression scores were lower than those previously reported by us (10), and no patient with primary alcoholism displayed persistent depression, although a 6% rate would have been anticipated on the basis of our previous research.

This report is based on a study group of modest size and at best should encourage additional research to replicate the patterns observed. Primary diagnostic groups were drawn from two sites with different psychotherapeutic activities. However, even with the enhanced depression-specific interventions, men with primary affective disorder displayed more protracted depressive symptoms. Finally, women were not included in the study. Since there is a greater incidence of affective dis-

orders among women (DSM-III-R), and the topography and consequences of female alcohol dependence vary from those of male alcoholics (34), these findings can only encourage a separate evaluation of the pattern of depressive symptom remission in women for assessing the utility of the diagnostic approach we used here.

Although there appear to be multiple pathways to the development of comorbid psychiatric disorders, in this study chronology-based primary-secondary distinctions were found to have prognostic significance for the clinical course of depressive symptoms. Further, depression was not found to be greater in intensity or duration among patients with a second diagnosis. Primary diagnosis based on the chronology of onset of symptoms is consistent with the possibility of causal relations between the comorbid disorders; however, in all likelihood heterogeneity and variability exist even within these diagnostic groups. For example, groups with two diagnoses could be composed of patients with a second diagnosis resulting from the initial diagnosis, as well as individuals with independent psychiatric disorders with different onsets.

Nevertheless, the chronology-based primary-secondary diagnostic distinction appears to have important implications for treatment planning. In particular, this study and others suggest that psychotropic intervention is not typically required to manage the depressive symptoms of persons with primary alcoholism, since remission of symptoms appears comparable for male alcoholic subjects with and without a secondary affective disorder diagnosis. In inpatient treatment the men with affective disorder and a second diagnosis of alcoholism displayed changes in Hamilton depression scale symptoms comparable to those of the men with the single diagnosis of primary affective disorder. This does not rule out the possibility that alcohol dependence may pose other problems in the management of depression (e.g., suicide risk). In the absence of a reliable symptom history for making primary-secondary diagnostic decisions, a minimum of 3–4 weeks of abstinence may be required for observing changes in depressive symptoms of mood, cognition, and anxiety/agitation.

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APPENDIX 1. Hamilton Depression Rating Scale Subscale Content

- Dysphoric mood
  - Depressed mood
  - Feelings of guilt
  - Decreased work and activities
  - Psychic anxiety
  - Worthlessness
- Dysfunctional cognitions
  - Suicidal ideation
  - Depersonalization/derealization
  - Paranoid ideation
  - Obsessional and compulsive symptoms
  - Helplessness
  - Hopelessness
- Vegetative symptoms
  - Insomnia
  - Retardation
  - Agitation
  - Somatic anxiety symptoms
  - Gastrointestinal symptoms
  - General somatic symptoms
  - Sexual functioning changes
  - Weight decrease
  - Diurnal variation
- Anxiety/agitation
  - Agitated appearance
  - Psychic anxiety
  - Somatic anxiety
  - Gastrointestinal symptoms
  - General somatic symptoms
  - Hypochondriasis