Correlation and characteristics of self-rating and clinically rating depression among alcoholics in the course of early abstinence

Povezanost i karakteristike samoprocene i kliničke procene depresije kod alkoholičara u toku rane apostinencije

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Abstract

Background/Aim. Depression is an alcoholism relapse risk factor, but frequently stays undiagnosed among treated alcoholics. The correlation and characteristics of self-reported and clinically assessed depression severity and positive significant correlations between HRDS and BDI were detected after admission. A predominant mild-degree with a significant low depression severity was detected. The dysphoric mood on the HDRS subscales were significant. Dysphoric mood, anxious, vegetative and self-blame, anhedonia and guilt BDI symptoms were prominent and persisted. The BDI could be a useful tool not only for routine screening and reassessment of depression, but also for exploring emotional content during early abstinence and planning tailored integrative therapy and relapse prevention for alcoholics.

Key words: alcoholism; depression; comorbidity; psychiatric status rating scales; self-evaluation programs.

Rezultati. Na HDRS skali u vremenima T1, T2, T3 bilo je depresivna doba u 90,7%, 39,5%, 17,4% alkoholičara, odnosno 100 primarnih alkoholičara muškog pola, starosti 20–60 godina (dijagnostikovani prema Međunarodnoj klasifikaciji bolesti – MKB-10 i Dijagnostičko-statističkom priručniku – DSM-IV). Depresija je bila prokolljena Hamiltonovom skalom (HDRS) i Bekovim upitnikom (BDI) na prijemu (T1), posle četiri (T2) i osam nedelja (T3). Razlike skorova bile su testirane Studentovim t-testom i ponovljenim merenjima ANOVA. Primjenjena je i Pearsonova korelacija (p < 0.05), kao i faktorska analiza simptoma. Rezultati. Na HDRS skali u vremenima T1, T2, T3 bilo je depresivno blago depresije, već i za procenu unutrašnjeg sadržaja depresije u toku rane apostinencije. Na sva tri merenja bile su prisutne sve četiri HAMD skale. Prosečni skorovi HAMD vs BDI u vremenima T1, T2 i T3 bili su 14,20 ± 9,56, 7,35 ± 4,18, 4,23 ± 2,93 vs 14,20 ± 9,56, 8,14 ± 7,35, 5,30 ± 4,94, određeno je neznačajno. Najveća značajnost bila je u BDI skali, a u HDRS skali se značajno važilo samo u T3 merenju. U toku rane apostinencije bile su prisutne sve četiri HAMD skale.

Ključne reči: alkoholizam; depresija; komorbiditet; psihiatrijski status, testovi; samoprocena, programi.

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Introduction

Alcoholism and depression often co-occur as confirmed in numerous both clinical and population investigations. Several decades ago depression was not treated in dependent alcoholics because clinicians experience was that depressive symptoms were transitory during alcohol withdrawal. Alcohol-induced depression withdraws after the four-week abstinence and explains almost one half of depression episodes prevalence in alcoholics lives and it does not require treatment. A prospective study showed that after a year of abstinence, male alcoholics were at more than twofold increased risk of severe depression comparing to general population. A study on relapse prevention has shown that the most frequent determinants for relapse in the treatment of alcoholics was depressive mood in the early phase of abstinence. Follow-up of the treated alcoholics has shown that relapse after 5 months more often occurs in those who had more expressed depression at the beginning of abstinence. Depression disorder found out after 3 weeks from the beginning of abstinence represents a greater risk of relapse after 6 months of maintained abstinence. Depression persistence after alcohol withdrawal makes treatment of alcoholics more complicated. It is still insufficiently clear how comorbid depression changes during alcoholism therapy as well as which one is the most effective for both disorders. Smaller differences observed in clinical features among alcoholics with and without depression are a particular problem because those with depression are more similar to the ones without depression than to depressive patients. On the other hand, alcoholics have less clear insight about their own health and emotional condition at the beginning of the abstinence and it is also associated with the previous long period of masking emotions and self-medication with alcohol. There is a challenge for clinicians to recognize depression symptoms even on admission and then to anticipate whether these symptoms will be temporary or persistent. For this reason it is important not only to assess depression, but also to follow-up it in the course of early abstinence with the aim to apply timely therapy. Interaction between depressive symptoms and therapist focus on the emotional status of the alcoholics is an important predictor of their successful treatment. In order to explore emotional status and plan the treatment, it would be useful to determine depression quality because alcoholics experience abstinence as the lost pleasure and they are reluctant to necessary treatment. It would be interesting to compare objective assessment and subjective depression rating, because usage of the scale by clinicians needs time and additional education, while self-rating for depression screening is simple and fast. Also, self-rating can be a simple method to obtain important information on emotional content of alcoholics who rarely spontaneously explain their depressive symptoms. For this reason it could be useful to do not only detection, but also to follow-up depression in the course of early abstinence phase and to analyze its content with the purpose to improve integrative therapies for alcoholics.

The aim of this study was to examine correlations and characteristics of clinical rating and self-rating depression among alcoholics in the course of early abstinence.

Methods

Study design

The study was performed prospectively in the 8-week period at the Department for Psychiatry of the Military Medical Academy, Belgrade. The depressive symptoms were assessed at the three following times: on admission (T1), repeated after 4 weeks (T2) and after 8 weeks (T3) of the abstinence period. The patients underwent the period of 4 weeks in-patient and 4 weeks abstinence-focused day integrative program for alcoholics.

Subjects

A total of 100 male alcoholics, aged between 20 and 60 years, consecutively recruited on admission in a closed ward for 4 weeks and in the day program unit for the next 4 weeks were studied. Inclusion criteria were alcohol dependence syndrome diagnosed according to Classification of Mental and Behavioural Disorders – ICD-10 (World Health Organisation, 1992) and Diagnostic and Statistic Manual of Mental Disorders – DSM-IV (American Psychiatric Association, 1995). The subjects were primary alcoholics and the time-line metod was used for depression and primary alcoholism distinction. Exclusion criteria were a lifetime history of any DSM-IV Axis I disorder included depressive disorder and any psychiatric comorbidity or additional illegal substance abuse. Medical disorders were excluded by a clinical history, routine blood tests and complete physical exam. Examination was done independently by two physicians. The psychotropic medication, other than benzodiazepines and disulfiram were not allowed. Nine participants were excluded due to relapse and 5 had missed follow-up data resulting in a final sample of 86 alcoholics. Alcohol and drug screen were monitored.

The study protocol was approved by the Local Ethics Board and prior to the investigation written informed consents from all the subjects were obtained. The investigation was carried out according to the principles of good clinical practice and according to the Declaration of Helsinki.

Procedures

Sociodemographic characteristics and the pattern of alcohol use were obtained by the semistructured clinical interview on the baseline.

Assessment for depressive symptoms

Depression was evaluated and monitored by the Hamilton Rating Scale for Depression (HDRS) and Beck Depression Inventory (BDI).

The Hamilton Rating Scale for Depression is a clinician-rated semi-structured interview. Severity of depression was assessed by independent trained psychiatrist using the 21-item HDRS. Score sum can range from 0 to 63, and measures a normal range between 0 and 7, mild depression between 8 and 16, moderate depression between

17 and 24 and over 24 indicate severe depression. The 4 HDRS factors were extracted: dysphoric mood, anxiety/agitation, vegetative, and cognitive symptoms according Brown et al. 20.

The BDI is a paper and pencil questions survey which completion by patient require 5–10 minutes 21. Items are scored on 4-point scale value of 0–3. Score sum indicates degree of severity: 0–9, no or minimal depression; 10–16, mild depression, 17–29, moderate depression and 30–63, severe depression. Factor analysis of BDI symptoms extracted only mood factor interpretable in this sample, so we analized each BDI symptom severity.

**Statistical Analysis**

Descriptive statistics were calculated for all the variables and all data were expressed as mean ± SD. The difference between depression characteristics was calculated using the Student t-test. The p values of 0.05 or below were defined as statistically significant. Correlations were calculated using Pearson’s correlation coefficient. The analysis of variance (ANOVA) for repeated measures was applied to examine differences of the mean depression rates at each time point (T1, T2, T3). Data were analysed in Statistical Package for Social Sciences (SPSS) for Windows.

**Results**

**Participant characteristics**

Sociodemographical characteristics showed that the average age of male alcoholics was (X ± SD) 43.3 ± 7.3 years. They had the mean 13.7 ± 1.95 years of education. The majority of them (87.1%) were employed and were married (83.7%). The following data from the pattern of alcohol use were gathered: the first alcohol related problems occurred 10.3 ± 7.5 years ago, the average alcohol consumption in the month before the assessment was 65.5 ± 27.5 alcohol units per day.

**Depression characteristics**

The average mild-degree depression severity was detected by both scales on admission. The mean scores for HDRS and BDI were 15.16 ± 6.34 and 14.20 ± 9.56, respectively. The mean scores decreased in the course of the study. After 4 weeks they were 7.35 ± 4.18 for HDRS and 8.14 ± 7.35 for BDI. Finally, after 8 weeks the mean scores were 4.23 ± 2.93 for HDRS, and 5.30 ± 4.94 for BDI.

One-way repeated measures ANOVA were conducted to compare the scores for each scale. There were a significant differences between each repeated time points; for HDRS Wilks’ Lambda = 0.44, F (84) = 53.71, p < 0.01; and for BDI Wilks’ Lambda = 0.834, F (84) = 203.82; p < 0.01.

Depression was assessed in the majority of alcoholics on admission: in 90.7% on HDRS (mild 51.2%, moderate 31.6% and 7% severe degree) and 59.3% on BDI (mild 22.1%, moderate 29.1% and 8.1% severe degree). After 4 weeks (T2) depressive were 39.5% alcoholics on HDRS (mild 36.0%, and moderate 3.5% degree) and 30.2% on BDI (mild 15.1%, moderate 12.8%, and 2.3 % severe degree). After 8 weeks (T3) there were only 17.4% mild depressive alcoholics on HDRS, and 16.3% on BDI (mild 10.5%, moderate 4.6%, and 1.2 % severe degree).

A significant positive correlation between the mean HDRS and the mean BDI sum scores was detected at all the 3 measuring points: r = 0.763 (T1), r = 0.684 (T2), r = 0.613 (T3), respectively (p < 0.01 for all correlations).

Figure 1 showed the all 4 HDRS subscales presented in the course of 8 weeks of abstinence that decreased from baseline (T1) to T 2 and T3 time points.

Discussion

The depression prevalence in the treated alcoholics is quite irregular, which can be partly explained by various evaluation instruments and treatment settings. Major depression was assessed by HDRS among 33.4% of the treated alcoholics on admission and varied from 29% to 53% in different clinical researches \(^{21}\). By combination of the cut-off score on HDRS and BDI moderate to severe depression was detected in 33.3% of outpatient alcoholics \(^{22}\). In this paper the average severity of depression at the beginning of abstinence on the upper level of mild degree was detected with a significant decrease of the HDRS sum and BDI sum scores during the 8 week abstinence. Other authors have also reported reducing depression severity within the period of inpatient detoxification and abstinence \(^{23,24}\).

Analyzing the frequency of depression severity levels in our sample it was observed that the majority of alcoholics were depressive on admission (HDRS \(v<\) BDI: 90.7% \(v<\) 59.3%) with the presence of mild, moderate and severe depression levels. After 4 weeks the HDRS confirmed persistent only mild (36%) and moderate depression (3.5%), and after 8 weeks only mild depression persisted in 17.4% alcoholics. Another researchers found severe depression on HDRS among 25% \(v<\) 44% in-patient male alcoholics on admission and 11.4% \(v<\) 6% after the 4-week treatment \(^{25,26}\).

Various instruments for clinical evaluation of depression in alcoholics were used by many investigators. HDRS is a golden rule in diagnostics of depression and this observer rating scale was used to minimise influences on the selfrating depression scale. When used for the clinical sample of male alcoholics HDRS showed sensitivity of 100% and specificity of 96%, while BDI showed 67% of sensitivity and 69% of specificity and HDRS and BDI correlation was significant \(r = 0.29\) \(^{27}\). This paper determined statistically significant positive correlation for BDI and HDRS in all the three points of measurements with \(r_1 = 0.763\) (T1), \(r_2 = 0.684\) (T2) and \(r_3 = 0.613\) (T3).

Depressive syndrome represents a constellation of symptom groups, but except for the screening and evaluation of depression severity, attention is not sufficiently paid to some symptoms, so plenty of the obtained items is left unused for exploration of depression content. In this study the most prominent HDRS subscale through all the 3 measurements was dysphoric mood, followed by anxiety, than vegetative and cognitive subscale and it was found that each of them decreased in T2 and T3 reassessments. Another author found that the more prominent were anxiety and vegetative subscale among male alcoholics after 4 weeks of abstinence \(^{29}\). Our results with less prominent vegetative and anxiety subscales suggested that it was unlikely that the association of depression is highly influenced by alcohol withdrawal syndrome.

Factor analysis of BDI symptoms was performed, but except depressive mood, other factors were not found in this study. Other authors reported inconsistent findings of the factor model of the BDI in clinical sample of alcoholics \(^{28}\). For this reason the BDI items were analyzed in order to recognize depression quality in alcoholics on the basis of their self-rating. After 8 weeks the most persistent and prominent BDI symptoms were: self-blame, anhedonia and guilt, and after 4 weeks the most prominent symptoms together with the aforementioned ones were also punishment and past failure. However, at the beginning of abstinence the following symptoms together with the aforementioned persistent ones were: insomnia, sadness, irritability, agitation and fatigue. The alcohol withdrawal through the psychobiological stress mechanisms and changed neuroadaptation results in marked symptoms of anxiety as well as of vegetative ones which most often withdraw spontaneously within 3 weeks \(^{29}\). Depression and outcome of the treated alcoholism are significantly associated, but there is no evidence of the strong, direct causative correlation \(^{5,22}\). In male alcoholics with more expressed depression at the beginning of abstinence, relapse was more often noticed after 5 months \(^{30}\). In our sample mild depression on admission was observed, on average. In clinical practice attention is mostly paid to major depression, but the mild one is often overlooked and underestimated. However, the presence not only of major but also of mild depression in alcoholics has predictive importance concerning the course and outcome of their treatment. In a year follow-up after inpatient treatment, the male alcoholics with mild to moderate depression evaluated on admission by the BDI had 2.9 times and with severe depression 4.9 times higher risk of relapse in comparison to non-depressive alcoholics \(^{31}\).

Comorbid depression has unfavourable affect upon the outcome of treated alcoholism so that integrative psychosocial and pharmacological treatment of dependence is recommendable together with the combination of antidepressive agents and cognitive-behaviour therapy \(^{32}\). The focus is on the treatment of dependence and antidepressive agents show moderate effect \(^{30,14,15}\). The first step is early diagnosis of depression even on admission \(^{31}\). Taking into consideration that antidepressive therapy was not included in this study, partial remission of depression should be attributed to discontinued alcohol withdrawal as well as to the absent toxic effect of alcohol.

This study is limited to data from the small clinical sample of male alcoholics and also to the short follow-up period. Further investigations regarding the course of depression, and the impact on possible therapeutic consequences with large samples of both genders and within the longer period of time are needed.

Conclusion

The majority of male alcoholics were depressive on admission and had a mild-degree of severity both on Hamilton Rating Scale for Depression and Back Depression Inventory scales. A significant positive correlation between rating (HDRS) and self-rating (BDI) of depression was established. A significant decrease of rating and self-rating of depression severity was detected together with the most prominent and persistent dysphoric mood HDRS subscale. Self-blame, anhedonia and guilt were the most persistent and prominent BDI symptoms among alcoholics in the course of early abstinence. The BDI could be a useful tool not only for routinely screening and reassessment of depression, but also for exploring emotional content during early abstinence and planning tailored integrative therapy and relapse prevention for alcoholics.
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