

ORIGINAL ARTICLE

The relationship of personality disorders to treatment outcome in depressed patient – two years follow up in retrospective study

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Abstract

BACKGROUND: Many clinicians believe that depressed patients with comorbid personality disorder(s) may respond differently to standard treatments than patients with depression alone. Personality disorders appear to be common among patients with depression, suggesting potentially significant treatment implications for a large group of patients.

METHODS: The aim of the study was to assess retrospectively the efficacy of the in-patients therapeutic program for in patients suffering from depressive disorder and comorbid personality disorder or depressive disorder alone. Authors reviewed the records of patients with depressive disorder and any possible personality disorder during acute treatment and monitor following two-year follow up. The main question was to find number of past hospitalizations and rehospitalizations around index episode of depression, doses of medication or comedication and duration of the treatment.

RESULTS: There were 84 patients (67.9% women) diagnosed with depressive episode, who were included into the study. Any personality disorder was diagnosed in 40.5%. The age, onset and length of disease, gender, marital status, employment, suicide attempts, duration of treatment, and dose of medication or comedication did not differ between group of patients with personality disorder and group of patients without personality disorder. There was a significant difference in the number of previous hospitalizations between groups, which were significantly higher in patients with personality disorder. During two-year follow up 33.33% of patients were rehospitalized. There was not found a significant difference in number of rehospitalizations and length of the rehospitalizations among patients with or without comorbid personality disorder.

CONCLUSIONS: The finding that the presence of a comorbid personality disorder does not affect overall depression treatment response is similar to that reported by some recent studies.

INTRODUCTION

The diagnosis of personality disorder often evokes images of a difficult treatment, problems and a little chance of success. All these ideas may influence the conscious and unconscious attitudes of psychiatrist or psychologist and their subsequent behavior since the beginning of the treatment of the patient. Most clinicians believe that the presence of personality disorder (PD) automatically means worse response to treatment, prolonged therapy, and higher rate of episodes, worse prognosis and more expensive treatment. Comorbid personality disorder in depressive individuals can lead to lower efficiency of treatment of depression (Newton-Howes *et al* 2006; Sato *et al* 1994). This effect may be similar in anxiety disorders (Prasko *et al* 2005; Vyskocilova *et al* 2011). Patients without personality disorder improved more. On the other hand a significant improvement was observed in patients with personality disorder too. In our research we focused on the importance of comorbidity in patients with depressive disorder.

It was shown that comorbid personality disorder can lead to lower efficacy of depression treatment. We can also compare certain types of personality disorders and understand their influence on the treatment of depression, for example borderline personality disorder highly increases the risk of persistence of depression when compared to other personality disorders (Skodol *et al* 2011) and is a predictive factor for early onset of depression (Bella *et al* 2007). Borderline personality disorder is very often associated with the negative influence on treatment of depression (Levenson *et al* 2012). Effect of personal pathology on treatment of depressive disorder is more evident when two or more comorbid personality disorders are present (Sato *et al* 1994). Increased PD pathology can cause prolongation of time when the patient reaches remission (Bagby *et al* 2008; Levenson *et al* 2012). Comorbidity of personality disorders may also reflect in response to psychopharmaceuticals, these individuals respond less to antidepressants than depressive individuals without PD comorbidity (Sato *et al* 1994; Pfohl *et al* 1987). Meta-analysis of studies examining the influence of personality disorders on the treatment of depression shows that comorbid personality disorder increases the risk of a worse course of depression twice in comparison with patients without comorbid PDs in both the pharmacotherapy and psychotherapy studies (Kool *et al* 2005).

However certain studies argue the opposite, that comorbidity of these disorders has no effect on the efficacy of depression treatment (Mulder *et al* 2003; Russell *et al* 2003; Kool *et al* 2005; Blom *et al* 2007; Maddux *et al* 2009). O'Leary and Costello (2001) found that the presence of personality disorders predicts longer time to remission during acute treatment of depression. Although in 18 months catamnesis the presence of personality disorder was not a significant predictor of

more frequent relapses. In research examining two year catamnesis of depressive patients treated with interpersonal psychotherapy Levenson *et al* (2012) found that comorbidity of depression with one personality disorder would not be a significant predictor of time to remission. Nevertheless in case of depression comorbid with two or more PDs and presence of borderline PD there was longer time to get to remission. Combined treatment of medication and psychotherapy increases the efficiency of therapy of depressive patients with comorbid personality disorder (Bellino *et al* 2006, 2007).

AIM

The aim of our study was to determine whether personality disorder, diagnosed according to ICD-10 (1996) in common clinical conditions, affects the overall course of treatment of depressive disorder. We focused on patients hospitalized for depressive episode and their two-year follow up. We were interested in link between certain demographic or clinical characteristics and comorbid PDs in patients treated for depression. We researched onset of disease, psychiatric anamnesis in family, duration of illness or recurrence of depression (number and length of past hospitalizations and rehospitalizations in two year period).

METHOD

This is a retrospective comparison of treatment and two-year follow up of patients suffering from depressive disorder with comorbid personality disorder with patients with depressive disorder without PD comorbidity.

Hypothesis

Patients with depressive disorder and comorbid personality disorder will have significantly worse outcomes in treatment of depression than patients with depressive disorder without this comorbidity (reflects in longer treatment, greater combinations and higher doses of medication, higher number of past hospitalizations and rehospitalizations after index episode in two-year follow up etc.)

Sample

Patients were identified in the database of Department of Psychiatry of University Hospital Olomouc. Data were further evaluated whether they fulfill the criteria: final diagnosis of depressive episode or recurrent depressive disorder (ICD-10, 1996) during the stay at the clinic and the patients' age from 18 to 65 years old. The diagnosis according to ICD-10 research criteria (1996) was confirmed by the receiving physician, doctor of department and senior consultant and mentioned in the discharge summary. The patients with certain criteria (suffering from severe physical illness, having anamnesis of diagnosed bipolar affective disorder

der, schizophrenia or other psychotic disorder) were excluded from the study. The individuals with depressive episode with psychotic symptoms were included.

Methods of assessment

Electronic medical records and written documentation were studied in patients admitted in 2008–2010 for depressive episode or recurrent depressive disorder. We concentrated on finding of demographic data (age of patient, marital status, education, employment, family history of psychiatric diseases, any suicide attempts), onset and duration of depressive disorder, number of past hospitalizations and rehospitalizations in two year period (2010–2012), overall medication, its combination or doses, and diagnosis of personality disorder. All patients were monitored in 24 months period after their index hospitalization. We also monitored outpatient records of participants in this period. Patients were divided into two groups according to the diagnosis of PD. The first were depressive patients diagnosed with personality disorder, and the second were depressive patients without a diagnosed PD.

Statistics

Descriptive statistics was measured by PRISM 3. Demographic data and average total scores on each rating scale were evaluated by descriptive statistics; averages, medians, standard deviations, and character data distribution were detected. In the area of demographic quantitative data both groups (with or without comorbid PD) were compared in mean age, duration of illness and onset of disease using unpaired t-tests. Average lengths of hospital stay, averages, medians, standard deviations and types of distribution during hospitalization (at the beginning, in particular weeks and at the end) were determined. Both groups were further compared with another by unpaired t-tests according to the length of hospitalization, medication doses and combinations, electroconvulsive therapy, family anamnesis, suicide attempts, number of rehospitalizations and number of days of rehospitalizations. Relations of

alternative variables were evaluated by χ^2 test. All statistical tests were considered as acceptable with 5% level of statistical significance.

RESULTS

Description of sample

Data were evaluated from 87 patients. 84 patients were included in further statistical analysis (Table 1). In 3 patients there was not sufficient data for statistical processing. The mean age of the patients was 50.42 ± 11.27 years. The group included 57 women (67.9%). The first episode of depression occurred in an average of 38.38 ± 13.04 years, so the disease lasted 12.01 ± 10.66 years. Average number of previous hospitalizations was 3.78 ± 9.48 .

11 patients were single (13.1%), 46 married (54.8%), 20 divorced (24.8%) and 5 widowed (5.95%). Basic education had 16 patients (19.0%), 33 patients had educational level of skill workers (39.3%), secondary education had 26 patients (31.0%) and higher education had 9 patients (10.7%). During the index hospitalization 26 patients were employed (31.0%), 7 were unemployed (8.3%), 1 was a student (1.2%), 24 had disability pension (28.6%), 19 had old age pension (28.6%) and 7 were in a partial disability pension without a job (8.3%). A positive family history of psychiatric disorder was found out in 35 patients (41.7%).

Patients with personality disorder

A personality disorder was diagnosed in 34 patients (40.5%). 3 (8.8%) of them suffered from schizoid PD, 4 (11.8%) from borderline PD, 8 (23.5%) from a histrionic PD, 1 (2.9%) from anancastic personality disorder, 8 (23.5%) from avoidant/anxious PD, 2 (5.9%) from dependent PD, and 7 cases (20.6%) from mixed personality disorder.

Depressive patients diagnosed with personality disorder did not significantly differ on average from patients without PD in demographic characteristics, such as age, age of onset of the disease, the duration of

Tab. 1. Basic demographic and clinical data of the whole sample.

| Whole sample | Age | Onset of disease | Length of disease | Number of previous episodes | Index of antidepressants | Index of antipsychotics | Index of anxiolytics | Length of hospitalization |
|------------------------------|------------------------------|------------------------------|-----------------------------|-----------------------------|-------------------------------|-----------------------------|-------------------------|-------------------------------|
| Average | 50.42 | 38.38 | 12.01 | 3.773 | 52.05 | 2.842 | 0.3069 | 31.05 |
| Standard deviation | ± 11.27 | ± 13.04 | ± 10.66 | ± 9.481 | ± 17.37 | ± 2.693 | ± 0.4763 | ± 13.39 |
| Without personality disorder | 49.82 ± 12.3 | 38.9 ± 13.6 | 10.89 ± 9.81 | 2.04 ± 1.65 | 50.90 ± 20.12 | 2.76 ± 3.02 | 0.16 ± 0.38 | 31.12 ± 13.14 |
| With personality disorder | 51.29 ± 9.69 | 37.61 ± 12.34 | 13.67 ± 11.77 | 5.77 ± 13.94 | 52.21 ± 15.14 | 1.63 ± 1.88 | 0.32 ± 0.48 | 30.94 ± 13.97 |
| t-tests | t-test: t=0.5859 df=82 | t-test: t=0.4377 df=80 | t-test: t=1.162 df=80 | Mann-Whitney: U = 618 | t-test: t=0.06846 df=81 | t-test: t=1.879 df=54 | Mann-Whitney: U = 64 | t-test: t=0.05976 df=81 |
| p-value | n.s. | n.s. | n.s. | p<0.05 | n.s. | n.s. | n.s. | n.s. |

the disease or length of index hospitalization (Table 2). Regarding medication during index hospitalization there was found no significant difference in doses of antidepressants, antipsychotics, or anxiolytics between

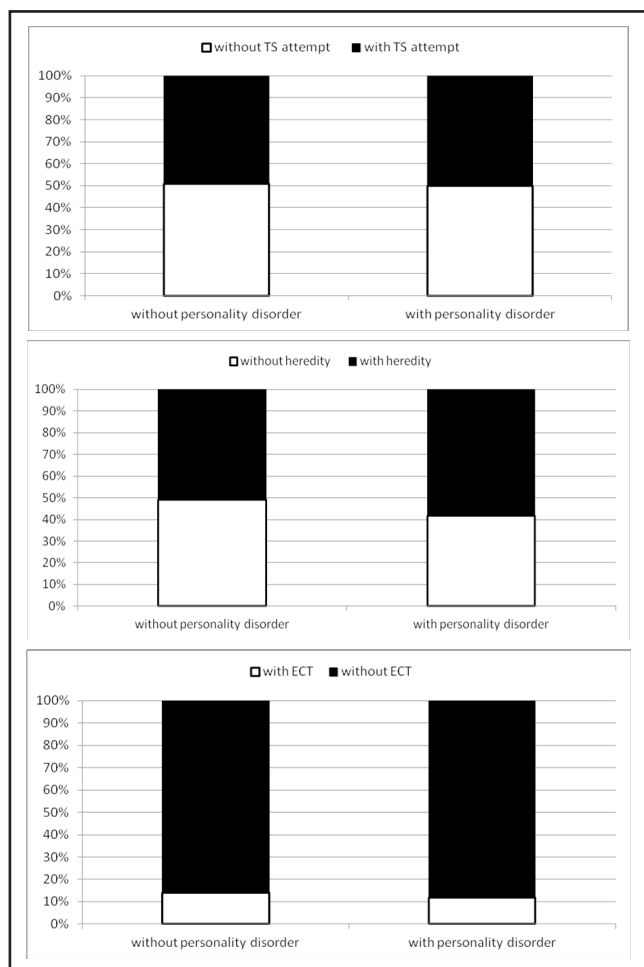


Fig. 1. The proportion of patients who attempted to commit suicide in past and those who had not, patients with psychiatric heredity in the family and without, and patients who were treated with electroconvulsive therapy and those who were not, in the group of patients with depressive disorder without personality disorder and patients with depressive disorder with personality disorder.

groups (Table 2). This also applies on averages of doses in particular patients who received appropriate medication, apart from doses of anxiolytics, which were significantly lower (0.39 ± 0.52 mg equivalent of alprazolam) in patients with personality disorder ([n=21] versus 0.84 ± 0.42 mg [n=13], Mann-Whitney U = 64; $p \leq 0.05$). Furthermore, patients with personality disorder significantly differed from patients without PD in the average of 2.8 times higher number of previous hospitalizations (Table 1).

The groups did not differ from each other in the number of suicide attempts, in the frequency of family psychiatric anamnesis or the frequency of use of electroconvulsive therapy during the index depressive episode (χ^2 all n.s.) (Figure 1).

Follow up

In a period of the two-year follow up 28 patients (33.33%) were rehospitalized. The average number of rehospitalizations was 0.66 ± 1.27 for the patient. Patients were rehospitalized for 14.51 ± 26.92 days in average in two-year follow up. The number of rehospitalizations does not correlate with any demographic or clinical factors that we investigated in the study. The number of rehospitalizations obviously statistically significantly correlates with the number of days spent in rehospitalizations (Table 2).

The number of days of rehospitalizations does not correlate with any of the demographic or clinical factors that we investigated in the study (Table 2). The trend appears in the correlation between the number of days of rehospitalizations and the length of index hospitalization (Spearman $r=0.0737$).

Patients without personality disorder versus patients with comorbid personality disorder

Patients regarding the comorbidity of personality disorder do not significantly differ in age, onset of disease or duration of illness on average. However there is a statistically significant difference in the number of hospitalizations before the index hospitalization (Mann-Whitney U-test = 197; $p \leq 0.005$). During two-year

Tab. 2. Correlation between the number of rehospitalizations, number of days of rehospitalizations during two-year follow up and other demographic and clinical characteristics.

| | Age | Onset of disease | Length of disease | Index of antidepressants | Index of antipsychotics | Index of anxiolytics | Length of hospitalization | Number of days of rehospitalizations | Number of previous hospitalizations |
|--|-----------------------|---------------------|----------------------|--------------------------|-------------------------|----------------------|---------------------------|--------------------------------------|-------------------------------------|
| Correlation with the number of rehospitalizations | | | | | | | | | |
| | -0.00574 ^P | 0.1804 ^P | -0.2298 ^P | 0.05298 ^P | 0.057 ^P | -0.153 ^S | 0.2234 ^P | 0.9819 ^S | 0.06984 ^S |
| <i>p</i> -value | ns | ns | ns | ns | ns | ns | 0.0918 | $p < 0.0001$ | ns |
| Correlation with the number of days of rehospitalizations | | | | | | | | | |
| | -0.02898 ^P | 0.1653 ^P | -0.2357 ^P | 0.133 ^P | 0.1016 ^P | -0.1844 ^S | 0.2367 ^P | 0.9819 ^S | 0.03136 ^S |
| <i>p</i> -value | ns | ns | ns | ns | ns | ns | 0.0737 | $p < 0.0001$ | ns |

P=Pearson r; S=Spearman r

follow up there is no difference in average number of rehospitalizations (Mann-Whitney U-test =838,5; n.s.) or in average length of rehospitalizations between both groups with or without personality disorder (Whitney U-test 848; n.s (Table 3).

If we focus on the average length of rehospitalizations, patients without personality disorders were rehospitalized 45.75 ± 30.79 days in average, while patients with personality disorder were rehospitalized 31.43 ± 30.83 days in average. This difference is also not statistically significant (unpaired t t-test = 1.448 df = 28, n.s.).

DISCUSSION

Proportion of patients with personality disorder is similar (40.5%) to other studies focused on comorbidity of depressive disorder and personality disorders (Mulder *et al* 2003). Although the diagnosis was not assessed by structural clinical interview, only by clinical examination by doctor, proportion of patients with certain types of personality disorders corresponds to the representation in different studies (Corruble *et al* 1996).

We hypothesized that patients with depressive disorder and comorbid personality disorder have worse outcomes in treatment than patients with depressive disorder without comorbid PDs (reflected in the length of treatment, higher doses and combinations of medication and the number of previous hospitalizations and rehospitalizations in two-year period). This was mostly not confirmed in the study. There is the same length of hospitalization in both groups, as well the same dosage and combinations of medication. However the groups differ in higher number of previous hospitalizations (before index hospitalization) in patients diagnosed with a personality disorder. In relation to this finding we must point out that patients in a naturalistic study were released at a similar time, regardless they suffered from personality disorder or not. Although length of hospitalization is not only dependent on the success of the treatment, but it is also related to number of social and economic impacts. However these factors appear to be similar for both groups. Neither number of rehospitalizations nor their lengths differ between groups, regarding comorbidity of PD in two-year follow up. It seems that patients with personality disorders do not seek for hospitalization more often, or they are not more often recommended by doctors, than patients without PD.

Similar findings emerged in controlled studies that did not find greater number of relapses in patients with personality disorders (O'Leary & Costello 2001; Levenson *et al* 2012). Similarly to our research, some studies found that the presence of PD does not negatively affects the treatment of actual episodes and an outcome of treatment is independent of comorbidity of PD (Mulder *et al* 2003; Russell *et al* 2003; Kool *et al* 2005; Blom *et al* 2007; Maddux *et al* 2009). The average doses of antidepressants and antipsychotics were simi-

Tab. 3. Comparison of depressive patients without personality disorder with patients with comorbid personality disorder in number of rehospitalizations and number of days of rehospitalizations.

| | Patients without personality disorder (n=50) | Patients with personality disorder (n= 34) | Statistics |
|--------------------------------------|--|--|---------------------------------|
| Number of rehospitalizations | 0.58±1.03 | 0.53±0.90 | Mann-Whitney test U=838.5: n.s. |
| Number of days of rehospitalizations | 15.28±28.22 | 12.94±24.92 | Mann-Whitney test U=848: n.s. |

lar in both groups and did not significantly differ. The combinations of medication were also not used more frequently in patients with comorbid PD. However patients with personality disorder were found to have higher average doses of anxiolytics when recounted on patients who anxiolytics took. On the other hand when the doses of anxiolytics were recalculated on every patient in a group, the doses of anxiolytics did not differ between both groups regarding the presence of PD.

The question is whether studies where patients are not prospectively collected by diagnostic interview and the diagnosis is not assessed by a structural interview (eg. MINI, IPDE), but it is done by usual clinical examination by doctor, even though it is rated by two other doctors, has some diagnostic value. We believe that it has certain value, because this data reflects the real situation. It corresponds to the usual ways of diagnostics and treatments. Such findings are different, but they are in many ways perhaps more realistic view on the problem than controlled studies with a narrow selection of patients. When the extra time spent by evaluating the patients and changed expectations of the patients and physicians can lead to biased results. We believe that obtained data by a way of a real clinical examination can enrich and complete the findings of many controlled studies.

The study has also other limitations that reduce the possibility to generalize its results. First of all the retrospective analysis of data can be one of the limits, because they were not obtained by structural diagnostic interview. Patients were not treated equally as it is in the case of prospective studies. They took different medications based on decisions of various doctors.

Doses of antidepressants or co-medicated antipsychotics were almost similar in average. Only doses of anxiolytics were different between groups. Higher doses of co-medicated anxiolytics in certain patients with comorbid PD may be associated with lower emotional stability in individuals with personality disorders, with their higher demands and appeals to the psychiatrist to reduce anxiety as quickly as possible, or other symptoms of PDs, like a manifestation of asthenic characteristics, high dependency etc. However it seems

that this effect has not a greater influence on the results of two-year follow up.

Another limitation is that follow up lasted only two years and relapses of depression may occur later. Other important limitation is that the size of a sample may not be representative enough to determine the differences between groups. However, both groups behaved very homogeneously during a period of two-year follow up and there were not found even minimal sign showing the tendency of any differences between them. It is very likely that even with significant increase of the sample the results would be similar.

CONCLUSION

The results of retrospective study do not suggest that treatment of patients suffering from depressive disorder and comorbid personality disorder was less effective than in depressive patients without comorbid personality disorder. Further studies with larger number of patients, standardized approach to the diagnosis and evaluation, and longer follow up monitoring are needed to explore this issue precisely.

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