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Depression during an acute episode of schizophrenia or schizophreniform disorder and its impact on treatment response

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Abstract

The aim of the present study was to examine the relevance of depressive symptoms during an acute schizophrenic episode for the prediction of treatment response. Two hundred inpatients who fulfilled DSM-IV criteria for schizophrenia or schizophreniform disorders were assessed at hospital admission and after 6 weeks of inpatient treatment using the Positive and Negative Syndrome Scale (PANSS) and the Hamilton Rating Scale for Depression (HAM-D). Depressive symptoms showed positive correlations with both positive and negative symptoms at admission and after 6 weeks, and decreased during 6 weeks of treatment. Pronounced depressive symptoms (HAM-D score $\geq$ 16) were found in 28% of the sample at admission and in 9% after 6 weeks of treatment. Depressive symptoms at admission predicted a greater improvement of positive and negative symptoms over 6 weeks of treatment, but also more, rather than fewer remaining symptoms after 6 weeks. Both results, however, lost statistical significance when analyses were controlled for the influence of positive and negative symptoms at admission. Therefore, the hypothesis that depressive symptoms are predictive of a favorable treatment response was not supported by the present study.

Keywords: Depression; Schizophrenia; Treatment response; PANSS; HAM-D

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1. Introduction

Depressive symptoms are common in patients suffering from schizophrenic disorders and strongly associated with the overall subjective quality of life (Möller and von Zerssen, 1982; Leff, 1990; Koreen et al., 1993; Bottlender et al., 2000; Siris, 2000; Jin et al., 2001; Siris et al., 2001; Reine et al., 2003; Serretti et al., 2004; Sim et al., 2004; Zalsman et al., 2004). Kay (1991) found that depressive and anxiety symptoms cluster together as a distinct factor in patients with schizophrenia. Different etiological concepts of depressive symptoms in schizophrenia are discussed, e.g. side effects of antipsychotic medication in terms of an "akinetic depression" (van Putten and May, 1978) or a "pharmacologically induced depression" (Floru et al., 1975), psychoreactive factors in terms of a "demoralization syndrome" (Birchwood et al., 1993; Liddle et al., 1993), an integral part of the schizophrenic illness (Knights and Hirsch, 1981; Hirsch, 1982; Hirsch et al., 1989; Hirsch et al., 1990; Tapp et al., 2001) or a mixture of these components. On the other hand, a syndromal overlap between depressive and extrapyramidal (Siris, 1987) or negative symptoms (Siris et al., 1988; Bottlender et al., 2003) has been reported as being a possible cause of misdiagnosis of extrapyramidal or negative symptoms as depressive symptoms.

Depression in schizophrenic disorders may occur prior to an exacerbation of the illness, after recovery from an acute episode, and particularly during an acute psychotic exacerbation of schizophrenia or schizophreniform disorder (Martin et al., 1985). The prognostic impact of depressive symptoms seems to depend on the stage of schizophrenic illness at which they occur. While several studies found that depression in the chronic stage of schizophrenia is associated with more relapses, a greater risk for suicide, and quite an unfavorable outcome (Johnson, 1988; Hirsch and Jolley, 1989; Cohen et al., 1990), other authors reported that depressive symptoms in an acute episode of schizophrenic disorders are related to a good treatment response and a more favorable outcome (Kay and Lindenmayer, 1987; Emsley et al., 1999; Oosthuizen et al., 2001).

Emsley et al. (1999) used the Positive and Negative Syndrome Scale to assess positive, negative, and depressive/anxiety symptoms in a sample of 177 patients with schizophrenia or schizophreniform disorders during an acute psychotic episode. The authors found that depressive symptoms at baseline predict a more favorable treatment response in terms of a greater improvement of positive and negative symptoms during 6 weeks of treatment. Furthermore, Oosthuizen et al. (2001) found that depressive symptoms at baseline predict fewer negative symptoms at follow-up (6, 12, and 24 weeks after admission) in patients with first-episode schizophrenia. However, conflicting results were reported by Koreen et al. (1993), who examined 70 patients with first-episode schizophrenia and found that depressive symptoms do not significantly predict time to remission of psychosis and global outcome. The results of Bottlender et al. (2000) also gave limited support to the suggestion of a better outcome for depressed schizophrenic patients compared with non-depressed ones.

Against this background, the present study aims to expand the empirical database on course and prognostic impact of depressive symptoms in an acute episode of schizophrenia or schizophreniform disorder. The sample comprises 200 inpatients with DSM-IV schizophrenia or schizophreniform disorder who are part of a larger ongoing multi-center follow-up program. The hypothesis was that presence of depressive symptoms during an acute episode predicts a more favorable treatment response.

2. Methods

2.1. Subjects

The sample stems from a larger, ongoing multi-center follow-up program (German Research Network on Schizophrenia) (Wölwer et al., 2003) that is being conducted at 11 psychiatric university hospitals (Aachen, Berlin, Bonn, Cologne, Düsseldorf, Essen, Göttingen, Hamburg, Mainz, Munich, Tübingen) and three psychiatric district hospitals. Patients who were admitted between January 2001 and December 2004 to one of the 14 hospitals mentioned above were included in the study. The sample was randomly selected from all consecutively admitted patients suffering from schizophrenia or schizophreniform disorders. The selection process was carried out using randomization software. Patients were treated under naturalistic conditions. Subjects were aged between 18 and 65 years. Exclusion criteria were a history of major medical illness, head injury, and symptoms of drug or alcohol dependence. All patients had provided informed, written consent to participate in the study. The study protocol was approved by the local ethics committees (Jäger et al., 2007).

All patients with the diagnosis of schizophrenia (paranoid, disorganized, catatonic or undifferentiated subtype) or schizophreniform disorder according to the DSM-IV criteria who were admitted to an acute ward and hospitalized for at least 4 weeks were selected for the present analysis. This sample comprised 200 subjects, of whom 119 (60%) were male and 81 (41%)