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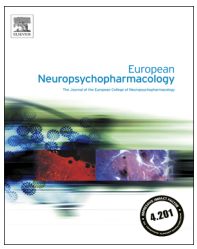

Psychopharmacological treatment of 2195 in-patients with borderline personality disorder: A comparison with other psychiatric disorders

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Abstract
Patients with borderline personality disorder (BPD) are usually prescribed a variety of psychotropic drugs; however, none is recommended in the guidelines nor has any been approved for this indication. As data on drug prescriptions for BPD are sparse, cross-sectional data from the European Drug Safety Project AMSP were used to analyse drug prescriptions of 2195 in-patients with BPD between 2001 and 2011, and the mean values, confidence intervals and regression analyses were calculated. 70% of all BPD patients were medicated with antipsychotics and/or antidepressants, 33% with anticonvulsants, 30% with benzodiazepines, and 4% with lithium; 90% received at least one, 80% ≥ 2, and 54% ≥ 3 psychotropic drugs concomitantly (mean: 2.8). Prescription rates for quetiapine, the single drug most often used in BPD (22%), increased significantly over time. In view of the high percentage of young females with BPD, 18–40 year-old female patients with BPD were compared with patients of the same age but with depression (unipolar and bipolar) and schizophrenia. Typical sedative antipsychotics and anticonvulsants were prescribed more often in BPD than in the other diagnostic groups,

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with the exception of bipolar depression; this was true for the single substances quetiapine, levomepromazine, chlorprothixene, carbamazepine, and valproate. A limitation of the study was the use of clinical data without verifying the diagnoses by structured interviews. Contrary to the guidelines, about 90% of in-patients with BPD received psychotropic drugs. Polypharmacy was common, and antipsychotics with sedative profiles such as quetiapine and mood-stabilizing anticonvulsants such as valproate appear to be preferred.

Introduction

Patients with borderline personality disorder (BPD) seem to be routinely prescribed a variety of psychotropic drugs. However, to date no drug has officially been approved for this indication. Intensive research on the effective use of drugs for this indication has yet to be conducted, and the data on prescription patterns for BPD in psychiatric hospitals are sparse. A study by Pascual et al. (2010) reported on drug treatment in 226 BPD out-patients in Spain, showing that more than 90% of patients received psychotropic drugs and that multiple drug use appeared to be common practice. Haw and Stubbs (2011) reported in their study of 79 in-patients in the UK with BPD that 80% received psychotropic drugs and about half were administered two or more different psychotropic substances simultaneously. In a Cochrane analysis, Lieb et al. (2010) and Stoffers et al. (2010) came to the conclusion that there are no promising results available on the efficacy of drugs used to counteract the core BPD symptoms: feelings of emptiness and abandonment as well as identity disturbances.

The present study investigated prescription trends of psychotropic drugs for BPD. It aimed to describe the actual treatment practices compared with general recommendations made in reviews, text books, and guidelines: APA (APA, 2001), APA update (APA, 2005), WFSBP (Herpertz et al., 2007), NICE (NICE, 2009) and NHMRC (NHMRC, 2012). It was hypothesised that (1) there are a few specific trends in prescription patterns in BPD due to special requirements, e. g. the avoidance of potentially toxic drugs such as lithium and tricyclic antidepressants (TCAs) and the preference of drugs against agitation; and (2) prescriptions reflect general pharmacotherapeutic trends as the efficacy of drugs in BPD is still controversial.

Since actual prescription practice is largely unknown, the prescription rates of psychotropic drugs in 2195 hospitalised patients with BPD were investigated. To identify specific pharmacotherapeutic trends, the prescription rates in BPD were compared with those in-patients with other psychiatric disorders. The analysed data were provided by the European drug surveillance programme AMSP (Arzneimittelsicherheit in der Psychiatrie).

Experimental procedures

Data source

The current study used prescription data provided by the European Drug Safety in Psychiatry (AMSP) programme. AMSP is an ongoing international multicenter drug safety programme that has collected data on pharmacotherapy and adverse drug reactions from psychiatric hospitals in a naturalistic setting since 1994. Its methods have been described in detail elsewhere (Engel et al., 2004; Grohmann et al., 2004).

Briefly, AMSP has collected data at psychiatric hospitals or psychiatric departments in Germany, Switzerland and Austria, and for a short period of time at a hospital in Belgium and in Hungary. The number of participating hospitals increased from 9 in 1994 to 58 in 2011. In a cross-sectional approach all participating hospitals surveyed psychiatric in-patients on two reference days per year. All drugs administered on these days were recorded along with the patients' age, gender and leading psychiatric diagnosis. Furthermore, severe adverse drug reactions that occurred at these hospitals in association with psychopharmacological treatment were reported and have been collected continuously. This study was based on only a cross-sectional AMSP data set of prescriptions for 88,793 patients surveyed between the years 2001 and 2011.

Study population

Within the AMSP data set all patients with a current primary diagnosis of borderline type (*F* 60.31, BPD) were selected. Secondary diagnoses were not assessed in AMSP during the period 2001–2011. Drug prescriptions for BPD were also compared with those for other diagnoses. For this part of the study, female patients between 18 and 40 years of age were selected to ensure better comparability. A total of 87.2% (n=1913) of all BPD patients were namely females, and 70.7% (n=1522) of all BPD patients were females between ages 18 and 40. The following groups were selected for comparison: all female patients of the same age group with a diagnosis of depressive episode and recurrent (unipolar) depression, i.e. diagnostic codes ICD 10: *F* 32–*F* 33.9, bipolar depression, *F* 31.3–*F* 31.5 or schizophrenia, *F* 20–*F* 20.99, and all females between 18 and 40 years of age, regardless of their psychiatric diagnoses.

Statistical methods

Analyses of group means: The mean frequencies of prescriptions of drug groups and single drugs between 2001 and 2011 for various diagnostic groups and the 95% confidence intervals (CI) were calculated using the Clopper Pearson method, with α=0.05 (Clopper and Pearson, 1934). A statistically significant difference between the prescription rates in the diagnostic groups was defined as non-overlapping confidence intervals of these relative frequencies. A marginal overlap was defined as a statistical trend. If appropriate, mean values of the years 2001–2003 and means of 2009–2011 are given for the assessment of time-related trends.

Regression analyses: To analyse the relationship between the relative frequencies of prescriptions of drug classes and of single substances over time, the prescription rates were calculated for each year. Data were plotted over time and the logistic regression was calculated. Linear regression was used for the analysis of the