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Effect of pharmacological treatment on temperament and character in panic disorder

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Abstract

Temperament and character were evaluated in patients with panic disorder (PD) before and after 1 year of pharmacological therapy to verify whether personality characteristics change after treatment. Therefore, 65 PD patients and 71 healthy subjects participated in the study. All subjects were evaluated with the SCID-IV, the Temperament and Character Inventory (TCI), the SCL-90, the Ham-A and the Ham-D. Patients were treated with paroxetine or citalopram. The TCI was re-administered to the patients at the end of the study. At the end of the study, complete remission was achieved by 31 patients (R), whereas symptoms did not disappear in the remaining 34 patients (NR). Before treatment, NR patients showed higher levels of harm avoidance (HA) and lower levels of persistence (P), self-directedness (SD) and cooperativeness (C) than healthy controls. Only HA levels were higher than normal in R, although they were significantly lower in R than in NR patients. These differences persisted after treatment. However, in NR patients the levels of SD and C worsened, whereas the difference between R patients and controls in HA levels (higher in R patients than in controls) disappeared after controlling the effect of residual phobic anxiety (higher than normal in R patients). Our data suggest that the high levels of HA found after remission may depend on the subsyndromal residual phobic symptoms, observed in R patients. Moreover, the persistence of anxious symptoms may have worsened the low levels of SD and C observed before treatment in patients who did not achieve remission.

Keywords: Personality disorders; Temperament and character; Panic disorder; Pharmacotherapy; Treatment outcome

1. Introduction

Personality disorders (PersDs) are commonly observed in patients affected by panic disorder (PD) with a prevalence rate ranging from 20% to 86% (Hoffart et al., 1994; Ampollini et al., 1997, 1999; Langs et al., 1998; Dyck et al., 2001; Iketani et al., 2002; Massion et al., 2002; Grant et al., 2005).

On the one hand, PersDs are supposed to predispose people to suffer from PD (Cloninger, 1986; Brooks et al., 1989), to increase the severity of anxious symptoms (Mavissakalian and Hamman, 1987; Wittchen et al., 1991; Hofmann et al., 1998; Ozkan and Altindag, 2005), to predict the pattern of comorbidity, particularly the co-occurrence of major depression (Hoffart and Martinsen, 1993; Langs et al., 1998; Ongur et al., 2005; Ozkan and Altindag, 2005) and to influence negatively

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the response to treatment (Dreessen and Arntz, 1998; Slaap and den Boer, 2001). On the other hand, PD may worsen personality functioning, particularly by increasing the avoidant and dependent traits (Mavissakalian and Hamman, 1987; Noyes et al., 1991; Hoffart and Hedley, 1997; Hofmann et al., 1998).

In most studies in which personality characteristics were evaluated in PD patients, the categorical approach was utilized. However, this approach has been criticized (Widiger and Sanderson, 1995; Westen and Arkowitz-Westen, 1998) and dimensional models of PersDs are thought to be superior to categorical models, especially for research purposes (Widiger, 1992). Among the variety of alternative dimensional models proposed for DSM-IV PersDs, Cloninger's psychobiological model (Cloninger, 1987; Cloninger et al., 1993) has received considerable empirical support. The most recent conceptualisation of this model (Cloninger et al., 1993) consists of four dimensions of temperament (novelty seeking (NS), harm avoidance (HA), reward dependence (RD) and persistence (P)) and three dimensions of character (self-directedness (SD), cooperativeness (C) and self-transcendence (ST)).

In PD, Cloninger's model has been tested almost exclusively in the acute phase, and most studies used the Tridimensional Personality Questionnaire (TPQ), which refers to the first conceptualisation of Cloninger (Cloninger, 1987) and evaluates only the temperament dimensions. In these studies, high levels of HA were found in PD patients (Saviotti et al., 1991; Starcevic et al., 1996; Ampollini et al., 1997, 1999), particularly in those with depressive comorbidity. Some authors suggested that high HA in acutely ill PD patients might be related to the severity of symptomatology, because the severity of the anxiety state changes HA score (Brown et al., 1992; Svrakic et al., 1993); in contrast others posited that high HA is a personality dimension related to vulnerability to PD (Cloninger, 1987; Saviotti et al., 1991). This controversy might be resolved by longitudinal studies that evaluate personality dimensions before and after remission. Nevertheless, to our knowledge only one study (Saviotti et al., 1991) assessed temperament in remitted patients. In these patients, HA was higher than normal, suggesting that this temperament dimension is a trait that predisposes people to suffer from PD.

To our knowledge, no previous study evaluated temperament and character dimensions in PD patients both in the acute phase and after complete remission of symptoms. Therefore, in this study PD patients were evaluated with the Temperament and Character Inventory (TCI) (Cloninger et al., 1994), before and after medication treatment, to verify whether an alteration of temperament and/or character dimensions represents a stable personality characteristic in PD. A group of age- and sex-matched healthy subjects served as controls.

2. Methods

2.1. Sample

One hundred subjects, 69 women and 31 men (mean age 35.4±9.8 years), agreed to participate in the study and gave their informed consent. They were recruited from all out-patients who consecutively sought treatment at the Center for Mood and Anxiety Disorder of the Psychiatric Clinic of the University of Parma-Italy since January 2001. In all patients, the diagnosis of PD was established according to DSM-IV criteria (American Psychiatric Association, 1994). PD was the primary mental disorder in all patients.

Patients with severe suicidal risks, schizophrenia or other psychotic disorders, organic mental disorders, substance abuse or dependence, history of neurological or medical illnesses (i.e. cardiovascular, hematological, liver, respiratory, endocrinological diseases) were excluded from the study to reduce the likelihood of treatment resistance.

Age- and sex-matched relatives of university employees without any lifetime mental disorders and chronic medical illness served as controls.

2.2. Assessment

During the first visit, all subjects (controls included) received the Structured Clinical Interview for DSM-IV Disorders (Mazzi et al., 2000), the Symptoms Check List-90 (SCL-90) (Derogatis, 1977), the Hamilton Rating Scale for Anxiety (Ham-A) (Hamilton, 1959) and for Depression (Ham-D) (Hamilton, 1960), the TCI (Cloninger et al., 1994) and a semi-structured interview that was performed to collect clinical and anamnestic information.

Furthermore, patients were given diaries in which they recorded the daily frequency and severity of panic attacks and anticipatory anxiety. The daily monitoring with a panic diary is the standard method for evaluation of panic attacks and anticipatory anxiety, strongly endorsed by experts in the field (American Psychiatric Association, 1998; Shear et al., 1998).

All patients were followed over 12 months. During the follow-up period, they were evaluated monthly; during each visit the SCL-90, Ham-A and Ham-D were administered and the panic diaries were evaluated to