CASE REPORT

EFFECTIVENESS OF DULOXETINE IN A PATIENT SUFFERING FROM SEVERE PANIC DISORDER

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Abstract

Duloxetine is a serotonin and norepinephrine reuptake inhibitor (SNRI), recently introduced into the clinical practice, which has been demonstrated to be effective and well tolerated in the treatment of major depression and general anxiety disorder, while only meager information is available about its effectiveness in panic disorder. The present paper describes the case of a 38 years-old man who had been suffering from PD for ten years, and, although treated correctly with recommended drugs, obtained the panic resolution only with 120 mg/day of duloxetine. This case suggests that duloxetine should be considered as a therapeutic option in treatment-resistant PD.

Key words: duloxetine, panic disorder

Declaration of interest: none

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Introduction

Although selective serotonin (5-HT) reuptake inhibitors (SSRIs) and tricyclic antidepressants (TCAs) have been widely demonstrated to be effective in panic disorder (PD), between 30 and 40% of PD patients do not respond to conventional pharmacological options including these compounds (Bandelow and Ruther 2004, Bandelow et al. 2008). Different strategies have, thus, been proposed for resistant cases, in particular the combination of SSRIs and TCAs, the augmentation with benzodiazepines, pindolol, valproate or gabapentin, as well as the switch to monoamine oxidase inhibitors, although with a higher risk of side effects (Mathew et al. 2001, Pollack 2005). Theoretically, the modulation of both the 5-HT and norepinephrine systems, such as that displayed by 5-HT and norepinephrinene reuptake inhibitors (SNRIs), typical of SSRI and TCA combinations, should be effective in overcoming this resistance (Pollack et al. 2007, Nicolini et al. 2008). Not surprisingly, some observations are available of a certain effectiveness of venlafaxine, a SNRI, in treatment-resistant PD (Pollack et al. 1996, Katzman 2004), while only a few data are available for duloxetine (Crippa and Zuardi 2006, Simon et al. 2009). Duloxetine is the latest SNRI introduced into the clinical practice which resulted effective and well tolerated in the treatment of major depression and generalized anxiety disorder (De Berardis et al. 2008, Girardi et al. 2009, Kornstein et al. 2009). This paper reports a case of a treatment-resistant PD patient who responded successfully to duloxetine.

Case report

Mr. M is a 38 years-old man, owner of a shop, who had been suffering from panic disorder (PD) since a decade. The first attack occurred suddenly while he was exercising, and led to a rapid development of avoidant behaviours. He was convinced to suffer from a severe medical illness, but all the clinical tests were negative, so that one year later the first attacks, he decided to consult a psychiatrist. The first treatment was paroxetine (30 mg/die) associated with lorazepam (2 mg/die to be reduced within 1 month) that provoked

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a remission of symptoms lasting almost six months. However, after the death of his dog, the panic attacks re-exacerbated and were soon accompanied by secondary demoralization and psychogenic pain, treated with gabapentin (400 mg/die) which was ineffective. Since the clinical picture did not change and severe derealization and depersonalization symptoms emerged, he was given carbamazepine (400 mg/die) with no effect. At the same time, the severe impairment of the quality of his life provoked the onset of a mood lowering characterized by irritability, sleeplessness and decreased appetite. After unsuccessful therapeutic attempts with imipramine (150 mg/die) or clomipramine (300 mg/die), he was admitted to the Day-Hospital of a Psychiatric Department, with a diagnosis of PD, as assessed by the Structured Clinical Interview for DSM-IV, and was given citalopram (20 mg/die i.v., and, thereafter, 60 mg per os). At that time, the Hamilton Rating Scale for Anxiety (HRSA) total score was 21 and the Hamilton Rating Scale for Depression (HRSD) total score was 23. No symptom improved and sertraline (up to 200 mg/die) was given for four months, although with no improvement. Negative results were also obtained with pramipexole (0.35 mg/die), or with the combinations of different SSRIs (citalopram, escitalopram, fluoxetine, in sequence) with valproate. In January 2007, duloxetine was introduced into the clinical practice of the country of the patient, and was soon given him alone at a dosage of 60 mg/die titrated up to 120 within one month. After 3 months of this regimen, the panic attacks of the patient had totally disappeared and the mood resulted much improved, as shown by the total score, respectively, of the HRSA, which was 3.1, and that of the HRSD, which was 4.2. The symptomatic improvement continued in the following 3 months with a significant amelioration of his social/work profile until the point that the patient could attend a crowded rock concert of one of his favourite groups in the capital town. After two years of duloxetine, the patient shows no anxiety or avoidant symptom and is no longer demoralized. His social life, including sport activities neglected for a long time for the fear that the exercise might trigger the panic attacks, is totally restored.

Discussion

This case report suggests the potential usefulness of compounds such as duloxetine, with a dual mechanism of action involving the inhibition of both 5-HT and NE re-uptake, in the treatment-resistant PD. The positive response of this severe patient to duloxetine is particularly relevant, as he was suffering from PD since ten years and was treated correctly with recommended drugs, which were all ineffective. Obviously, the main limitation of this study is that it is only a single case, so that it cannot be excluded that the patient remitted spontaneously. However, it is noteworthy that the onset of the anti-panic effects of duloxetine preceded those on mood (4 vs 8 weeks) and led to a progressive improvement of social /work adjustment of the patient, as well as to a reduction, until extinction, of avoidant behaviours. Along the two-years long follow-up, duloxetine resulted to be well tolerated, since the patient did not complain of any significant side effect, apart constipation in the first two months of treatment, which progressively disappeared.

Conclusion

The effectiveness of duloxetine in one case of treatment-resistant PD highlights the need of larger randomized controlled trials in order to investigate its usefulness (and perhaps that of other SNRIs) in this condition. In addition, the good tolerability profile of duloxetine suggests that it may be particularly useful in increasing the treatment compliance of some PD patients who generally are quite sensitive to side effects and/or show drugphobia.

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