It is never too late to treat anxiety neurosis or panic disorder with a serotonin-reuptake inhibitor

Per Bech* and Lone Lindberg

Psychiatric Research Unit, Psychiatric Centre North Zealand, University of Copenhagen, Denmark

*Correspondence address: Psychiatric Research Unit, Psychiatric Centre North Zealand, University of Copenhagen, Dyrehavevej 48, DK-3400 Hillerød, Denmark. Tel: +45-38-64-30-95; Fax: +45-38-64-30-99; E-mail: per.bech@regionh.dk

Received 18 June 2014; revised 29 July 2014; accepted 1 August 2014

INTRODUCTION

We have recently published a 50-year follow-up study on patients admitted to a Danish hospital for neurotic disorders in the 1950s [1]. We demonstrated a co-existence rather than comorbidity between anxiety neurosis and depression. However, the register-based information only focuses on such major events as re-hospitalization in psychiatric departments in Denmark (followed-up until 1994) and suicide as listed in the Danish register of causes of death (until 2004). One of the patients with anxiety neurosis was admitted to our department of psychiatry in 1995 and was from then on treated by us until 2014. This case illustrates the burden arising from anxiety neurosis concerning such factors as social life, including family relationship domains, and treatment-seeking behaviour.

CASE REPORT

Medical history

The patient was 30 years of age when he was hospitalized in 1954 for anxiety neurosis. From the age of 20, he gradually became nervous with excessive worrying and anxiety, irritability, fatigue, and insomnia. It was, however, his spells of anxiety or panic attacks that led to hospitalization. During the first weeks in hospital, he had approximately three attacks a day. The most dominating symptoms during these attacks were palpitations, breathing difficulties with a choking sensation, constriction of throat, faintness or dizziness with a feeling that he was going to black out. During his stay in hospital, he received insulin dosing therapy and narco-analysis without, however, any effect.

After discharge from hospital, the patient soon found that alcohol provided a very effective treatment. Over the next years, he used alcohol as an anti-anxiety medication and was able during this period to complete his training as a mechanic and to marry. However, after gradually having had to increase his daily intake of alcohol he was able to stop this completely at ≈35 years of age, since then never using any form of alcohol. When the anxiety attacks returned after this, he contacted his family doctor for a medical examination because he was sure that he was suffering from a heart condition, but no serious medical disease could be found. He worked as a mechanic at a small railway line’s maintenance workshop and he now experienced that his daily work was in itself a kind of treatment as the job demands were modest without much contact with other people. He was actually afraid of using...
railway transport, but not of travelling by car provided that he himself was behind the wheel and the distance to be travelled was not too far; his limit was 50 km a day.

His very restricted way of living gave many family problems. Thus his wife, with whom he had four children, eventually left him after 20 years of marriage. After this he lived alone with very little contact with his children and none with his former wife.

Immediately after his retirement at the age of 70, his panic attacks returned at very frequent intervals. For this reason, he was admitted several times to the cardiology department of our hospital, but nothing of a serious medical nature was found. Owing to suicidal thoughts, he was then admitted to our psychiatric department at the end of 1995. His first week in hospital revealed that over the past several months he had suffered from a depressive episode with significant anorexia and a weight loss of 10 kg. He had lost pleasure in almost all activities and his depressed mood was perceived as being distinctly different from an ordinary stress condition. Hopelessness with suicidal thoughts was present. He had sleep problems, especially early morning awakening, and his depressive mood was mostly worse in the morning. He was diagnosed as suffering from major depression, fulfilling all the DSM-III criteria for melancholia (endogenous depression) as well as the DSM-III criteria for panic disorder (PD). For the first time in his life, he was put on antidepressant medication in the form of sertraline in a dose of 50 mg daily the first 2 weeks and then 100 mg daily. After 6 weeks of therapy both the depression and the panic attacks remitted. After discharge from hospital, the patient was treated in our outpatient clinic, with a maintenance dose of 50 mg sertraline daily as monotherapy, without any side-effects. His social life then improved, he showed more initiative in contacting other people and for many years he ran a small shop at a retirement home, selling soft drinks, magazines, sweets etc. At the beginning of 2014, he died from a colon cancer, just before his 90th birthday.

**DISCUSSION**

With the DSM-III [2] anxiety neurosis was subdivided into generalized anxiety disorder (GAD) in which excessive worrying is the core symptom, and PD in which the core symptoms are attacks of palpitations, shortness of breath, choking, dizziness or fear of dying. The case reported here started with GAD symptoms when the patient was 20 years old, while his panic attacks emerged when he was 30 years of age. At that time in 1954, we had no effective pharmacological treatment for this condition. Behind the DSM-III subdivision of anxiety neurosis was Klein’s observation [3] that panic attacks, but not GAD symptoms, could be effectively treated by the first generation antidepressant imipramine. Imipramine is a non-specific serotonin and norepinephrine re-uptake inhibitor. Evidence-based psychopharmacology [4] now considers the specific serotonin reuptake inhibitors such as sertraline as the pharmacotherapeutical drug of choice. As discussed by Bech [5] sertraline has been found to be a very effective antidepressant in elderly patients without previous episodes of depression, e.g. post-stroke depression [6].

In the DSM-5 [7], the diagnostic criteria for PD are similar to the DSM-III criteria. The evidence collected in DSM-5 on reported lifetime rates between PD and major depression now demonstrates that two-thirds of PD patients develop depression at a later stage. Moreover, that in a subset of patients with PD the use of alcohol represents an attempt at self-treatment. This is in agreement with Goodwin et al. [8].

A recent review of the burden of anxiety disorder [9] reports that most of these patients do not seek treatment and that suicide attributable to anxiety disorder is ~10%. Finally, it should be noticed that spontaneous recovery in PD and depression is very rare in old age [10].

The patient reported here illustrates the risk of alcohol abuse in PD, but his subsequent history also demonstrates the risk of depression and suicidal behaviour. However, when treated by a specific serotonin re-uptake inhibitor the patient improved and recovered. It is therefore never too late to seek treatment for PD.

**REFERENCES**

1. Jepsen PW, Butler B, Rasmussen S, Juel K, Bech P. Predictive validity of neurotic disorders: a 50-year follow-up study. *Dan Med J* 2014;61:A4858.

2. American Psychiatric Association. *The Diagnostic and Statistical Manual of Mental Disorders*. third edition (DSM-III). Washington D.C: American Psychiatric Association, 1980.

3. Klein DF. Delineation of Two Drug-Responsive Anxiety Syndromes. *Psychopharmacologia* 1964;5:397–408.

4. Stein D, Lerer B, Stahl S (ed). *Evidence-based Psychopharmacology*. Cambridge: Cambridge University Press; 2005.

5. Bech P. Is the antidepressive effect of second-generation antidepressants a myth? *Psychol Med* 2010;40:181–186.

6. Rasmussen A, Lunde M, Poulsen DL, Sorensen K, Qvitzau S, Bech P. A double-blind, placebo-controlled study of sertraline in the prevention of depression in stroke patients. *Psychosomatics* 2003;44:216–221.

7. American Psychiatric Association. *Diagnostic and statistical manual of mental disorders*. 5th edn (DSM-5). Washington D.C American Psychiatric Association, 2013.

8. Goodwin RD, Lieb R, Hoefler M, Pfister H, Bittner A, Beesdo K, et al. Panic attack as a risk factor for severe psychopathology. *Am J Psychiatry* 2004;161:2207–2214.

9. Baxter AJ, Vos T, Scott KM, Ferrari AJ, Whiteford HA. The global burden of anxiety disorders in 2010. *Psychol Med* 2014;44:2363–2374.

10. Francis JL, Weisberg RB, Dyck IR, Culpepper L, Smith K, Orlando Edelen M, et al. Characteristics and course of panic disorder and panic disorder with agoraphobia in primary care patients. *Prim Care Companion J Clin Psychiatry* 2007;9:173–179.