

Deleterious Results of Safety Seeking Behaviors in Panic Disorder: Polydipsia and Diabetes Mellitus Type 2



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SUMMARY

Panic disorder is an anxiety disorder that involves recurrent panic attacks, which emerge when a harmless stimulus is interpreted as “catastrophic”. In an attempt to avoid the panic attack or prevent confrontation, the patient exhibits a dysfunctional attitude and behavior, such as evasion and safety-seeking behavior (SSB). Dysfunctional behavior leads to an increase in the recurrence of panic attacks and affects the patient’s life in a negative way. According to the cognitive behavioral therapy model, SSB contributes to the continuation of unrealistic beliefs (e.g. physical experiences) regarding and prevents the patient from grasping new information that may potentially contradict the unrealistic cognitions. In this paper, we present a case with a primary diagnosis of panic disorder. Interestingly, this patient developed diabetes mellitus (DM) type 2 and psychogenic polydipsia (PPD) as a consequence of his SSB. PPD is a common occurrence in patients with psychiatric disorders, especially in schizophrenia. Up to now, no case of a panic disorder with either DM or PPD has been reported in the literature. While it is accepted that major depression poses a risk for DM type 2, panic disorder may also increase this risk. Treatment of the panic disorder with cognitive behavioral therapy (CBT) resulted in improvement of PPD and DM type 2. In conclusion, the role of SSB in medical disorders accompanied by psychiatric disorders should be kept in mind when treating these patients.

Keywords: Panic disorder, psychogenic polydipsia, type 2 diabetes mellitus

INTRODUCTION

Panic Disorder (PD) is an anxiety disorder which is defined by recurrent and unexpected panic attacks. Diagnosis of PD is determined when 4 of the thirteen symptoms are experienced during the attacks. Apart from the attacks, PD is accompanied by anticipatory anxiety and/or serious behavioral changes that damage function (American Psychiatric Association 2013). According to the cognitive theory, anxiety is a consequence of an individual’s perception to relate threat or danger towards his/her safety as a result of subjective information processing (Salkovskis et al. 1996). A panic attack actually emerges through the misinterpretation of non-dangerous stimuli as “catastrophic” (Austin and Richards 2001). As a result of catastrophic misinterpretations, the symptoms of anxiety and normal bodily sensations as well as usual changes in physiological

activities are frequently associated with fear, mental anguish, or death due to heart attacks. Ultimately, a panic attack arises from the ever increasing anxiety (Wells 1997). Anxiety is sustained through two significant factors, including negative automatic thoughts and dysfunctional attitudes and behaviors. In PD, the dysfunctional attitudes and behaviors are screening of normal bodily sensations, escape, avoidance, and safety-seeking behaviors (SSBs). SSB is defined as a consequence of PD and usually involves sitting down or body support while dizziness and loss of balance subside (Salkovskis et al. 1999). SSB is a behavior aimed to prevent the condition being fearful; however, it also causes the continuation of misbelief and prevents reality (Gangemi et al. 2012). In this paper, the effect of SSB on the development of medical diseases is discussed in a PD case. This is the first case reported that demonstrates the role of SSB associated medical problems.

Received: 08.08.2014 - Accepted: 02.06.2015

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doi: 10.5080/u11201

CASE

A male patient, age 35, of secondary school graduate, and married with two children was admitted to the outpatient clinic of internal medicine with the complaints of eating and drinking excessively. The complaints of the excessive water consumption and eating frequently throughout the day had continued for 7 years and he gained weight of 38 kilos during this period. It was reported that he was followed up with the diagnosis of type 2 diabetes mellitus (DM) and he received anti-diabetic medication for the last one year. The patient was hospitalized in the internal diseases clinic with the provisional diagnosis of diabetes insipidus (DI). Following the fluid restriction, DI was excluded and he was diagnosed with psychogenic polydipsia (PPD).

It was ascertained during the interview that the patient had been diagnosed with PD about 5 years ago and that he had been under continuous treatment. The patient's first panic attack was accompanied with palpitation, mouth dryness, shortness of breath, sweating, feelings of choking, and fear of death during air travel 7 years ago. He had related the symptoms to being hungry and thirsty because of fasting in that day and he developed an avoidance behavior from the conditions over eating and drinking. Afterwards, the patient had begun to travel with bread and water all the time and he consumed up to 7 liters of water and up to 12 loaves of bread a day during the last year. The patient avoided all travel by plane or public transport and only preferred commercial vehicles. His reasoning was that he would have not been able to stop the vehicle and meet his food and water requirements. During the interview, the patient had brought a loaf of bread and 5 liters of water and constantly drank during the process. In his mental status examination, the patient was of average height and had excess weight. It was observed that his mood was dysphoric and anxious, his emotion was compatible with the mood, there was no abnormality in his perception, his thought process was normal, and anxieties about his medical condition were present in his thought content. It was understood that he had been 77 kilos (normal weight) before the disorder, but his weight increased to 109 kilos in 7 years. It was determined that the patient used 40 mg/day fluoxetine and 5 mg/day aripiprazole to treat his PD. These medications were stopped and 20 mg/day paroxetine was started. A decision was made to start cognitive behavioral therapy (CBT) to the patient. The patient was firstly informed about the PD and its treatment. The catastrophic interpretations, bodily sensations, SSB, and avoidances of the patient were conceptualized together with the patient. Then, 'exposure homeworks', in which avoidance behaviors and SSB were prevented, were planned and put into practice. The patient was taught to develop alternative thoughts replacing catastrophic interpretations. Changes were observed in the patient following 'exposure homeworks' in which cognitive distortions, avoidance, and SSB were prevented. Preventing SSB

in the form of excessive food and water consumption enabled fluid restriction which was recommended for PPD treatment and diet regulation that has a significant place in DM treatment. Thus, contributions to the treatment of these diseases were made. After the fifth session, the patient wanted to continue his treatment in the province that he resided in. One and a half years after the treatment was executed by our clinic, it was determined that his daily food and water consumption was reduced to normal limits. In addition, his blood glucose level was under normalized, anti-diabetic drug stopped, and he was in remission in terms of PD and SSB, which was no longer present.

DISCUSSION

In this PD case, it was thought that SSB led to PPD and posed a significant risk factor for the development of type 2 DM, which caused an increase in weight through hyperphagy. SSB in a person with PD is a coping response that becomes a routine part of the daily life (Rachman et al. 2008). It has been determined that SSB is observed more frequently than the healthy controls primarily in PD as well as in obsessive compulsive disorder and social phobia (Gangemi et al. 2012). In PD, SSB prevents healing through the continuation of anxiety. In a study, 18 PD patients with agoraphobia were divided into two groups. Exposure homeworks were implemented to one group without making any intervention to SSB, whereas the other group was given exposure homeworks in which SSB was prevented. Significantly better treatment outcomes were obtained in the group with prevention of SSB (Salkovskis et al. 1999).

PPD is a disorder causing excessive fluid intake and frequent urination complaints with a decreased urine density. It is differentiated from nephrogenic diabetes insipidus with the increase of urine density in the fluid restriction test. It has been considered that, as a consequence of excessive fluid intake, PPD arises from a disorder in the function of the hypothalamo-pituitary axis. PPD is a clinic syndrome frequently observed in psychiatric disorders but, it often goes unidentified or diagnosed (Kaya et al. 2000). It has been reportedly observed at a rate of 6.0-20.0% in psychiatric disorders, most frequently in schizophrenic patients (Dundas et al. 2007). Apart from schizophrenia, PPD has been reported in autism, mental retardation, mood disorders, anorexia nervosa, alcohol dependence, and obsessive compulsive disorder (Altındağ et al. 2004, Westermeyer and Lee 2010, Duraiswamy et al. 2011, Kohli et al. 2011, Ceyhan Dirican et al. 2005, Korkmaz et al. 2010). In a study conducted on 353 psychiatric inpatients, the polydipsia prevalence was determined as 12.9%. When the patients having polydipsia were compared with those not having polydipsia, a significant difference was found between the groups in terms of schizophrenia, mental retardation, and pervasive developmental disorder. There was no difference found

between them in terms of mood disorders and personality disorders (Mercier-Guidez and Loas 2000). In some cases, PPD can be associated with stress (Kohli et al. 2011, Özgün et al. 2002). It has been argued that stress may lead to polydipsia by causing inhibition of atrial natriuretic peptide (Özgün et al. 2002). Diagnosis of PPD is important as it can cause hyponatremic encephalopathy through water intoxication (De Leon et al. 1996). In a case report, it was reported that a young female patient, admitted to the hospital in a coma due to water intoxication, was diagnosed with PPD. In her evaluation, no mental disorder was observed but the patient consumed excessive water for being “cool” associated with the Chinese traditions (Lee et al. 1989). No case with a primary diagnosis of PD has been reported in literature; however, a case with a primary diagnosis of major depression and accompanied panic attacks was published (Kohli et al. 2011). Even though hyponatremia treatment is essential in PPD treatment, fluid restriction is generally recommended (Thomas et al. 2001). In this case, it was determined that PPD treatment can provide fluid restriction through prevention of SSB.

The number of studies examining the comorbidity of type 2 DM and PD is limited in literature. In a study conducted in Taiwan, comorbidities were analyzed in 3,672 patients with PD. It was found that there was an increasing risk of DM compared to the controls. In this study, an increase was observed in the risk of DM in PD. However, it was determined that the most apparent risk increase was observed on cardiovascular diseases (Chen and Lin 2011). In a study where 508 DM patients were followed up for 18 months, the risk of PD was 85.0% more than controls, while the increase in the generalized anxiety disorder risk was 123.0% and the increase in the major depression risk was 60.0% (Fisher et al. 2008). In a study conducted on 4,385 patients diagnosed with DM, the incidence of recent panic episodes was found to be 4.4% whereas, 54.5% of the cases were also diagnosed with major depression. It was shown that panic episodes were associated with an increase in DM symptoms and complications, HgA1C levels, low quality of life, and development of disability (Ludman et al. 2006). In our PD case, the patient applied to hyperphagia as an SSB, causing increase in weight. This increase in weight posed an important risk factor in terms of the development of type 2DM. In addition to being informed about the disease, diet, exercise, and losing weight are known to be important for the treatment success in DM type 2 (Albright et al. 2001). It is also possible that the prevention of SSB in treatment of the PD in accordance with the CBT model made a positive contribution to the treatment of DM that developed.

In cases of PD accompanied by medical disorders, it will be important for the physician to be mindful of SSB and its role in the development of medical illnesses. Prevention of SSB will affect patient treatment in a positive manner.

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