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How to Encounter the Development of Panic Disorder During Adjuvant Breast Cancer Chemotherapy: A Case Study

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Abstract

Background: Panic disorder during adjuvant chemotherapy for breast cancer occurs rarely and thus there are no studies, nor specific guidelines to treat its troubling symptoms that may lead to treatment discontinuation.

Case report: We describe a patient with breast cancer developing panic disorder during adjuvant chemotherapy treatment putting at risk its completion. We used progressive muscle relaxation (PMR) to effectively control her symptoms and achieved completion of her therapy.

To our knowledge, this is the first reported case of a patient with breast cancer developing adjuvant chemotherapy-related panic disorder. PMR is highlighted through our study as an effective way of handling panic disorder in oncology units.

Keywords: Breast cancer, chemotherapy, panic disorder, anxiety disorders, progressive muscle relaxation

Introduction

Panic disorder is an anxiety disorder that has been linked with recently experienced striking life events [1]. In the U.S.A. the lifetime prevalence has been reported at 4.7%, while women are more prone than men having an odds ratio of 2.3 for developing the disorder [2]. Medical outpatients are also considered to be in high risk, since a study using a relative sample reported its prevalence at 4.3% [3]. As to cancer patients, a recent study found the prevalence of panic disorder at 8.75% [4].

Regarding mental health during female breast cancer treatment, chemotherapy is associated with a higher anxiety level than other treatment regimens [5]. Paradoxically, no studies have yet investigated panic disorder's prevalence during breast cancer adjuvant chemotherapy. Subsequently, no ways of intervention in order to manage panic disorder at that period have been tested. Thus, there are no specific guidelines for how to treat such rare cases. Here, we present such a case treated with Progressive Muscle Relaxation (PMR) aiming at blocking panic disorder's development.

Case Presentation

The patient was a 54 year old Caucasian woman, diagnosed with early stage breast cancer, treated with lumpectomy and axillary sampling, and scheduled for 8 cycles of adjuvant chemotherapy. Chemotherapy treatment consisted of four cycles of epirubicin 100 mg and Cyclophosphamide 1000 mg followed by four cycles of docetaxel 100 mg and Herceptin 450 mg. Treatment proceeded uneventfully when on the fifth chemotherapy cycle and just prior to the intravenous line insertion, she experienced a panic attack and run away from the oncology unit abandoning her husband and daughter in the waiting room without any notice. In the following days she suffered two panic attacks without apparent casualty while being outside the house. She also expressed fear to proceed with chemotherapy treatment due to a potential upcoming panic attack at the oncology unit.

From her medical records, the patient was overweight and had quit smoking prior to her breast cancer surgery. She was married, had three children, and an unremarkable past medical history. Regarding her cancer-related family history, her father had died of gastric cancer, while as to mental disorders none of her family members had ever been diagnosed. Besides chemotherapy she was under no other medication.

A specialized psychologist collected data by using an unstructured interview two days before her rescheduled appointment for the fifth chemotherapy cycle in order to assess her mental state and design a therapy aiming at symptom's treatment. When evaluating her self-reports considering the attacks and other relevant information the patient fulfilled three out of four DSM-5 criteria for the diagnosis of panic disorder [6]. Actually, she fulfilled three out of four criteria since at least one month is needed from the first attack till giving the diagnosis. She had no record of mental disorders and had never before experienced a panic attack nor a limited symptoms attack, which is an episode with less than the minimum required symptoms of a panic attack [7]. No other current mental disorder was diagnosed.

Given the absence of treatment guidelines for such rare cases and since relaxation training is considered an effective way to encounter panic disorder in the general population [8], the research team agreed in the use of this technique on the patient. Additionally, it was deemed beneficial for her to practice PMR taking into account the findings of a randomized controlled trial for the use of the technique on breast cancer patients undergoing chemotherapy treatment [9].

At the same appointment two days before her rescheduled chemotherapy, the participant was fully informed about PMR and its mode of operation. She expressed her willingness to be helped and gave written consent. She was given an audio CD with instructions on how to practice PMR and advices to practice twice a day (morning and

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evening). A table to record possible upcoming panic attacks and a table to record the frequency of PMR's practice were also given to her.

During her remaining chemotherapy cycles no other panic attack occurred. Consequently there was disorder's cessation. As to technique's practice, the patient conducted a total of 32 PMR sessions. A semi-structured interview during the last chemotherapy cycle was used in order to light the potential mechanisms that lead to symptom's treatment. The main finding of her interview was that she attributed this cessation to an increased resistance to anxiety. As she reported, the same cancer and not cancer-related facts that were causing her anxiety are not affecting her in the same degree. Thus, she attributes that way disorder's treatment.

Discussion

Through a search at MEDLINE we tried to locate studies examining breast cancer adjuvant chemotherapy-related panic disorder. Since no such studies were identified we consider this as the first relative case reported.

Considering that our patient's health and survival could be at a high risk if chemotherapy was not fully delivered, we acknowledge the cessation as of high importance. As to the technique's mode of operation, her self-reports are in total agreement with the literature since increased anxiety sensitivity has been linked with panic disorder [10]. Taking into account that the patient was not provided with a medication for her panic attack, symptom's ending is attributed to our intervention.

The case of our patient indicates the need to investigate the occurrence of panic disorder in women undergoing chemotherapy for breast cancer that remains underreported. We strongly support the use of PMR in patients developing panic disorder at risk for treatment discontinuation and therefore risk of relapse. Breast cancer is viewed from patient's perspective as a transition from health to illness [11]. Therefore, giving the cancer patient one more medication could further damage its health perspective. Additionally, although advanced pharmacological treatments for panic disorder in the general population are available [12], their employment could potentially deteriorate the health prospective of cancer patients [13]. Thus, we support the application of non-pharmacological approaches such as PMR which may be extremely efficient. Since one single case is not enough for drawing any kind of conclusion, further research investigating the application of PMR in oncological patients is warranted.

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