Young Adult Hodgkin’s Lymphoma Survivor Develops Panic Disorder during Early Survivorship

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The patient is a 21-year-old single female college student who was diagnosed at age 19 years with stage IIA Hodgkin’s lymphoma and is currently 16 months past completion of cancer therapies. Before her cancer diagnosis, there was no reported history of psychiatric illness or treatment.

The patient initially presented to her primary care provider with upper respiratory symptoms and chest pain, prompting a chest X-ray, which demonstrated the presence of a mediastinal mass that was subsequently confirmed on CT. Biopsy results of the mass revealed pathology consistent with nodular sclerosing Hodgkin’s dis-
ease. Following this diagnosis, the patient was treated per Children’s Oncology Group protocol AHOD 0031 and received four cycles of chemotherapy with doxorubicin, bleomycin, vincristine, etoposide, prednisone, and cyclophosphamide. She also received consolidative radiation to the right axilla, bilateral supraclavicular fossa, and mediastinum. During chemotherapy, the patient experienced jaw and extremity pain (known side effects of vincristine), which responded to narcotic pain medication and, to a lesser extent, acupuncture.

Over the course of her cancer therapy, the patient also experienced problems with sleep and all-over body pain that seemed atypical in severity and presentation compared to other patients on treatment for lymphoma. She reported some anxiety about her pain, including the belief that it would never subside. The patient met with one of the hospital’s pediatric psychologists several times throughout active cancer treatment. Psychological support at that time consisted largely of supportive therapy, as the patient was not yet able to recognize the connection between her psychological distress and her physical symptoms.

During the time following completion of active cancer treatment, the patient continued to follow up with her oncology team at regularly scheduled visits for disease surveillance. Her disease remains in remission. Once the patient is 2 years from the end of therapy, she will be transitioned to the follow-up program for adult survivors of pediatric cancer.

She will require ongoing screening for potential physical late effects of chemotherapy and radiation treatment, including: recurrence of her malignancy; a secondary (treatment-induced) illness such as acute myeloid leukemia or myelodysplastic syndrome from exposure to etoposide; cardiomyopathy as a result of doxorubicin exposure and chest radiation; pulmonary fibrosis associated with bleomycin; and bone issues secondary to corticosteroid exposure.

After completion of cancer treatment, the patient returned to college; within 1 month, however, she withdrew from classes, reporting that she felt uncomfortable being so far away from her doctors. She moved back in with her parents and transferred her education to a local university for the following semester.

Shortly after starting classes, the patient sought further psychological treatment from the same provider at the hospital, as she noted feelings of isolation, difficulty connecting with peers, and guilt about her inability to feel normal again.

Further, she began to notice other somatic symptoms that were of concern to her, specifically episodes of dizziness, palpitations, and shortness of breath. During these episodes, which occurred several times per week, the patient felt compelled to leave classes early for fear of fainting. She also reported significant fear of having an episode in front of others and in locations where escape was not possible. As a result, she significantly changed her behavior and stopped attending classes, riding public transportation, going out with friends, and going to the gym.

In addition to the panic symptoms described above, she also reported ongoing and frequent difficulties falling asleep and various somatic complaints (headaches, back pain) of unknown origin (ie, not known effects of her previous cancer treatment). She endorsed frequent use of lorazepam for anxiety and zolpidem for sleep, both of which had been prescribed during the time of active cancer therapy by her treating oncologist.
DISCUSSION

The patient’s psychologist addressed her symptoms primarily through cognitive-behavioral therapy (CBT), as the efficacy of CBT for targeting fear of bodily sensations and associated agoraphobic situations is well established.1,2 Individual sessions consisted of: extensive psychoeducation about the nature of anxiety, panic, and agoraphobia, the role of avoidance in maintaining anxiety, and the rationale behind exposure treatment; cognitive restructuring (targeting misappraisals of bodily sensations); breathing retraining; interoceptive exposure (designed to lessen fear of specific bodily sensations by repeated exposures to them); and self-directed in-vivo exposure (ie, systematic, repeated, real-life exposure) to agoraphobic situations.

Further, as the patient was concomitantly participating in a meditation course at a local wellness center, meditation and mindfulness were incorporated into her treatment for panic. She also continued to receive weekly acupuncture sessions, a modality that had been initiated during treatment as a complementary pain management strategy. While the patient reported only minimal effect of acupuncture on her pain during treatment, she noted a significant positive effect on her anxiety after each out-patient acupuncture session.

Shortly after resuming psychotherapy, the patient began to meet with a psychiatrist to explore options for medication management of her anxiety symptoms. Trials were conducted of several selective serotonin reuptake inhibitors (SSRIs), including paroxetine, sertraline, and escitalopram. As each medication was titrated to a therapeutic dose, the patient reported frequent migraines and asked that the medication be discontinued.

ORIGINS OF PANIC

In psychotherapy sessions, the patient participated actively and demonstrated good response. After 10 weeks, her panic attacks were noted to have decreased significantly in frequency. Further, she demonstrated functional improvement in several domains of her life; she moved from her parents’ home to an apartment with a roommate, began spending time with friends on a regular basis, and started the search for a part-time job.

In addition, she significantly decreased her reliance on both lorazepam and zolpidem. While the patient has made significant progress in managing her symptoms of anxiety, psychotherapy is ongoing, as exacerbations in anxiety and panic reliably occur in the days and weeks directly prior to scans and tests required for ongoing disease surveillance. In addition, return to the college classroom may present a particular challenge for the patient and will be a focus of future sessions, as this environment is associated with initiation of panic symptoms.

Childhood cancer survivors are at no greater risk than control samples or the general population for anxiety and anxiety disorders.3-5 Evidence suggests, however, that survivors often report significant illness-related concerns, including preoccupation with physical symptoms, and increased rates of somatization compared with population norms and comparison groups.6,7

In the case presented, the patient’s cancer experience appeared to sensitize her to physical symptoms, and this hypervigilance to bodily changes complicated and contributed to her experience of panic.

As the symptoms that precipitated the patient’s diagnosis of lymphoma (chest pain and breathing difficulty due to mediastinal mass) are common symptoms of a panic attack, experience of these physical symptoms shortly after the end of medical treatment triggered illness-specific catastrophic thinking (eg, “My cancer is back.”) that in turn contributed to panic attacks. Psychotherapy, then, included focused cognitive training that challenged these illness-specific automatic thoughts.

ANXIETY AND ILLNESS

For several decades, panic disorder has been conceptualized by leading researchers in the field as an acquired fear of bodily sensations.8,9 Further,
one factor thought to be associated with physiological vulnerability to panic is “anxiety sensitivity” or the tendency to perceive anxiety — specifically the physical symptoms of anxiety — as harmful. It is believed that this tendency likely develops from negative life experiences, including a personal history of significant illness.

Anxiety sensitivity is also related to enhanced attention to, and detection of, autonomic cues; that is, people with panic disorder appear to have heightened awareness of, or ability to perceive bodily sensations of arousal. As a result of her cancer experience, then, the patient may have begun to pay more attention to and develop a fear of her body’s sensations, making her vulnerable to panic disorder.

The use of complementary strategies (acupuncture, meditation) was a critical component of this patient’s treatment for panic disorder. Regular acupuncture and meditation resulted in patient-reported decreases in anxiety and were viewed by the patient as core strategies for managing panic. A comprehensive treatment strategy that involved evidence-based treatment for panic disorder (ie, CBT) and complementary strategies known to decrease anxiety and pain and to improve sleep may be particularly well-suited to the complicated physical and emotional presentation of certain childhood cancer survivors.

REFERENCES