Panic Disorder and Cardiac Arrhythmias

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Analogous symptoms in panic disorder and cardiac arrhythmias can lead to diagnostic uncertainty for clinicians and hesitation to seek care for patients. Given that the prevalence of panic disorder is higher in women than men, women are poised to interact with this uncertainty more frequently [1,2].

Patient Profile

(Based on true patient, but some details are fabricated)

- Initials: Mrs. M
- Age: 35
- Sex: Female
- Occupation: Teacher
- Living situation/marital status: Long-term relationship; currently lives with boyfriend
- Substance use: smokes cigarettes (1 pack/day for 15 years); smokes marijuana on occasion, denies other recreational drug use; alcohol <7 drinks per week on average
- Past Medical History: 5-year history of panic disorder.
- No current medications or prior surgeries
- No relevant family history.

Patient presented to the ED via EMS after sudden onset of racing heart approximately 45 minutes prior to arrival. She has associated shortness of breath and fatigue. Patient was outside of her apartment smoking a cigarette when her symptoms started. Patient notes that initially she thought she might be having a panic attack and tried to slow her breathing, sit down, and relax. However, her heart continued to race, so she called EMS.

Evaluation

On physical exam, patient appears anxious and uncomfortable. HR: tachycardic at 180 with regular rhythm. Troponin: negative. EKG shows SVT Supraventricular Tachycardia. CXR: negative. Toxicology screen: negative.

Diagnosis

New onset SVT

ED Course

Vagal maneuvers were performed, but did not improve patient's tachycardia. Adenosine was administered. Patient's heart rate decreased to 80BPM and returned to sinus rhythm without any arrests or bradycardia.

Discussion

The lifetime prevalence of anxiety disorders—including panic disorder, agoraphobia, social anxiety disorder, and generalized anxiety disorder—is higher in women than men, and these disorders are more likely to be disabling in women than men [1]. It should be acknowledged that a higher prevalence of psychiatric disorders could be explained by cultural norms dictating female acceptance of psychopathology and willingness to report symptoms. Regardless, past medical history of anxiety disorder poises women to be at greater risk of diagnostic error in the context of cardiac symptoms due to provider anchor biasing. This type of cognitive bias occurs when a provider fails to consider a broad differential diagnosis for new symptoms because they can be explained by a past diagnosis. Anchoring bias has been identified as a key reason for delayed diagnosis in the context of other anxiety disorders such as PTSD [3].

Anxiety and stress can cause decreased vagal tone and increased sympathetic activation leading to somatic symptoms, specifically palpitations and shortness of breath [4]. When a patient presents to an emergency department with these symptoms and has a prior history of panic disorder, concluding that a panic attack is the root cause can be logical. It could be an example of anchoring bias, however, because palpitations and shortness of breath are also consistent with a host of cardiac problems including Postural Orthostatic Tachycardia Syndrome (POTS) and SVT. For instance, Dr. Beauregard, a cardiologist who specializes in cardiac arrhythmias, in an article entitled “Cardiac Arrhythmia Management: Why Women are different than Men,” explores how panic disorder and POTS are often confused [5]. Thus, relationship between anxiety and cardiac health is complex, and considering a broad differential diagnosis is necessary to optimize treatment.

Anchoring bias not only affects the provider, but it also affects the patient. Mrs. M noted that she delayed seeking care because she thought she was having a panic attack. This begs the question: does past medical history of panic disorder, a condition more prevalent in women, delay care for cardiac events? This is a factor that should be considered when educating patients and studying cardiac disease through a gendered lens.

Overall, Mrs. M seemed to receive appropriate treatment, but there was lacking explicit recognition and education that her panic disorder and heart health are interconnected. Sympathetic activation can lead to increased heart stress and the development or exacerbation of cardiac disease and arrhythmias [4]. Therefore, patients should be encouraged to have a lower, not higher, threshold to seek emergency care for cardiac symptoms in the context of pre-existing panic disorder.

References

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