Is This a Psychiatric Emergency or Something More?

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CE Earn Up to 5.5 Hours. See page 592.

Contribution to Emergency Nursing Practice

- The current literature on Fahr's disease indicates that emergency nurses should be aware of clinical presentations and potential treatment modalities.
- This article contributes knowledge about Fahr's disease and the varying clinical manifestations of patients who present to the emergency department.
- Key implications for emergency nursing practice found in this article are to recognize the symptoms and be aware of diagnostic testing not normally used in the emergency department as well as symptom presentation aligning with acute psychotic symptoms.

A 39-year-old man is brought into the emergency department in handcuffs, screaming and spitting at anyone who comes near him. Police and emergency medical personnel escort him to the nearest open exam room for evaluation. The charge nurse requests security personnel to place the patient into 4-point restraints for his safety and for the safety of the staff. Police and Emergency Medical Services (EMS) report to the emergency nurse that the patient had been doing yard work when he went to a neighbor's home suddenly, and without provocation, attempted to physically assault the homeowner and then removed his clothing and walked around the neighbor's home in only his underwear while shouting. The patient was combative on scene and attempted to kick out the windows of the police car while screaming incoherently at law-enforcement officers. The emergency nurse determines the patient's behavior to be that of someone who is having what appears to be either a psychiatric emergency or symptoms of substance abuse. The patient's prehospital vital signs are as follows: heart rate of 120 beats per minute, blood pressure 145/92 mm Hg, respiratory rate of 22 breaths per minute, pulse oximetry of 97%; it was not possible to take the patient's temperature owing to his agitation.

While in the emergency department, the patient's behavior continues to be erratic. The patient attempts to strike and bite ED staff during the process of being placed in restraints. The emergency nurse receives orders to medicate the patient with the following medications: haloperidol 5 mg, lorazepam 2 mg, and diphenhydramine 50 mg. The patient then suddenly becomes somnolent and seemingly falls asleep. Vital signs are now able to be assessed and are as follows: heart rate 95 beats per minute, blood pressure 142/88 mm Hg, respiratory rate of 16 breaths per minute, pulse oximetry 97% on room air, temperature 37.1 degrees Celsius (98.9 Fahrenheit). Laboratory studies, including a urine drug screen, electrocardiogram, and computed tomography (CT) scan reveal no abnormalities. The patient has various bouts of calmness followed by outbursts and is subsequently admitted to the inpatient psychiatric unit.

During consultation with the patient's wife, the health care team discovered that the patient has no medical history and has not had any outward symptoms of not feeling well except for 1 episode of out-of-control unprovoked crying, which spontaneously resolved 1 month before this current episode. The ED physician orders a magnetic resonance imaging (MRI) scan with contrast material and discovers basal ganglia calcifications. The decision to order the MRI was based upon no other potentiating causes of this behavior and to rule out abnormalities of the vasculature of the brain.[1]

Familial idiopathic basal ganglia calcifications are bilateral calcium deposits on basal ganglia of the brain. This disorder is also commonly referred to as Fahr's disease and is manifested by symptoms of varying degrees of intensity including seizures, mood disruptions, unsteady gait, fatigue, slurred speech, anxiety, ataxia, muscle cramps, and psychosis and/or dementia.[1] Patients live normal lives and then begin to exhibit symptoms of Fahr's disease in their fourth or fifth decades of life.[2] At present, there is not a cure for Fahr's disease. Furthermore, this disease is difficult to

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diagnose because of the variant degrees of symptoms and clinical presentations such as in this situation.[3] The current treatment modalities for familial idiopathic basal ganglia calcification are limited to treating the symptoms of the manifestation of the disease. "In clinical practice, purely psychotic presentations of Fahr's disease may not differ from typical schizophrenia presentations."[4]

Interviews with the patient's only living parent, his mother, reveal that the patient's father passed away last year from a fall down the stairs in the family home after several months of suffering from gait disturbance and hallucinations, which the family physician attributed to possible Alzheimer's disease.

The reason behind the calcifications forming in the brain is not known at this time. However, familial idiopathic basal ganglia calcifications have been linked to chromosome 14q, but scientists have resolved to conduct further studies on patients because of the rare nature of this genetically inherited disease, which is an autosomal dominant gene trait.[2] Autosomal dominant gene traits can be described as "the trait is expressed regardless of whether the person is homozygous or heterozygous for the dominant allele."[5] At present, there are also sporadic cases of Fahr's disease, which also manifest from abnormalities of the parathyroid.[1]

Frequently the symptoms actually mask the disease, and the patients who are affected by familial idiopathic basal ganglia calcification are often treated for other diseases such as epilepsy or dementia.[4] Sometimes the symptoms are attributed to medication reactions.[4] All too often, patients are not diagnosed with familial idiopathic basal ganglia calcification at all because the calcifications are not seen on CT scan and are only seen by MRI.[4] As it has been discovered that there is some association to chromosome 14q, genetic counseling for families who are on the receiving end of the diagnoses of familial idiopathic basal ganglia calcifications (FIBGC) is recommended.[5] This patient was diagnosed with familial idiopathic basal ganglia calcifications, and it was explained to the patient's wife and mother that it is an inherited disease; therefore, genetic counseling and testing for the family's 2 children were recommended.

The emergency nurse is integral to treating patients who present with behavioral health complaints. Often patients present to the emergency department for treatment of mental health disorders and are met with providers who have gaps in education in dealing with this patient population as well as negative attitudes and lack of evidence-based practice guidelines.[6] It is imperative that emergency nurses strive to ensure that they are educated about patients presenting with behavioral health emergencies, such as in this case, and treat patients and look beyond the symptoms to rule out other potential causes.

During the course of the hospital stay for this patient, he remained in custody of law enforcement secondary to being charged with assault on his neighbor. During the course of the hospital stay, the patient experienced frequent violent outbursts and attempted to cause physical harm to the caregivers and law enforcement officers on multiple occasions. The patient in this case is currently hospitalized because of his uncontrolled psychotic symptoms. Large doses of his medication were effective at controlling the psychotic symptoms initially; however, the patient experienced severe extrapyramidal symptoms from the prescribed medications. Owing to uncontrolled symptoms, he was medically cleared and was involuntarily committed to a psychiatric hospital for further treatment.

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