
Problems in Family Practice

The Patient Exhibiting Episodic Violent Behavior

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This case presentation describes a 21-year-old white male patient seen for episodic violent behavior. The case is seen as relevant for primary care physicians because of the frequency of violent acting out in the general population, the importance of making an accurate diagnosis, and the many medical, psychological, and social implications involved in diagnosing such disorders. In such cases it is important that the physician keep an open mind and include within the differential diagnosis a variety of psychiatric disturbances such as paranoid schizophrenia, antisocial personality disorder, drug abuse syndromes including a variety of hallucinogens as well as prescription medication, organic diseases affecting the central nervous system, including encephalitis and temporal lobe epilepsy, and a variety of interpersonal difficulties, including spouse abuse and spousal rape. The case presentation method demonstrates how the psychiatric interview and a judicious use of biochemical and physiological testing can lead the practitioner to a correct diagnosis.

Patients who come to their family physicians with episodes of violent behavior and peculiar thinking present a challenging problem. An awareness of the diagnostic possibilities and a careful and thorough history are, as always, the best ways to avoid unnecessary diagnostic evaluations and arrive at the correct diagnosis. In this

paper, a case presentation will provide the focus for evaluating the violent patient.

Case Presentation

A 21-year-old white man was seen for the first time at A.F. Williams Family Medicine Center at the University of Colorado School of Medicine. His 18-year-old wife called early one day; she was extremely upset and stated that her husband had physically attacked her that morning. The patient and his wife will be referred to as Dick and Jane.

By the time Dick and Jane were seen, there was no evidence of anger between them. In fact, they

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were joking with each other. They were both well dressed and appeared comfortable. Jane mentioned that this was the third time that Dick had physically attacked or come near to attacking her. On two prior occasions, he had become angry at her, called her a "bitch," and made menacing gestures toward her, although no act of violence was carried out. She described that today, while both of them were in bed, he suddenly started calling her names and began striking her face and chest. The episode lasted four or five minutes. When asked what she thought had happened, Jane said, "He didn't seem like himself. It seemed as if he was possessed." Dick stated that he felt somewhat confused by the episode and that he did not feel particularly angry at the time and had trouble remembering the event in any detail.

Since these violent episodes seemed to be out of context with the way in which Dick and Jane dealt with each other during the interview, a more detailed description of what actually happened was obtained. Dick stated that they were in bed early that morning "making love" when Jane mentioned that it was time for him to go to work. At that, he felt a vague sensation in his stomach, which he said, "ran up his body and into his neck." He described this as a feeling of "warmth." He then said that he became warm all over and suddenly began calling Jane a bitch and striking her. As this was occurring, he felt more and more unreal. He stated that he felt extremely powerful, as if he could have lifted up their waterbed, and mentioned that, as he was talking, it was as if his mouth was moving but that he could not hear the words. Finally, after three or four minutes of striking Jane, he fell over onto the bed and lay there in a dazed state.

Dick and Jane had been married one year earlier, and there were no children. They met while he was in military service in Germany and she was a student. Dick had joined the military at the wish of his father, who was a career soldier. He stated that he was eager to leave the military and did not particularly enjoy his experience there. He admitted to having used marijuana and hashish regularly, but had stopped doing this when he left the army. He drank beer occasionally and denied the use of any hallucinogenic substances. He was taking no medication at the time he was seen. He gave a history of a concussion at the age of 11 years that was treated with hospital observation. He had not

been treated for any chronic illnesses and stated that he felt he was in good health. There were no family illnesses that he could recall. As a child he was often told by his teachers that "he thought too much" and that at times he acted as if he were "in left field" for brief periods of time. He was seen briefly by a psychologist during his adolescence for minor acting out "while my parents went through a divorce." On mental status examination, Dick was a pleasant and cooperative individual oriented to time, place, and person. His ability to perform tasks testing short-term memory, abstractions, proverbs, and so on, was within normal limits. He had neither obvious delusional thinking nor hallucinatory thoughts and showed no vegetative signs of depression. His mood was reasonably cheerful. During the interview his tendency to ramble in long monologues related to what he called his tendency to "think too much" was striking. For example, he described spending hours thinking about questions like infinity, perfection, the existence of God, and the meaning of life, and he gave lengthy descriptions of his thought patterns. He described a recent episode during which he created a seance in which he tried to establish "whether or not the devil existed," and gave a lengthy description of his attempt to solve the question of the existence of God.

Physical examination revealed a tall slender man looking his stated age of 21 years. He appeared somewhat dazed and slow to respond. His pulse was 82 beats/min, respirations 12/min, and blood pressure 110/76 mmHg. The rest of his examination was entirely within normal limits. Urine and blood were obtained for routine chemical screening, presence of alcohol, and toxicology screening. An electroencephalogram (EEG) with nasopharyngeal leads, sleep deprivation, and strobic stimulation was obtained.

Psychiatric consultation was undertaken within the Department of Family Medicine, and the following diagnoses were entertained: drug effect including withdrawal from sedatives, such as barbiturates and methaqualone; ingestion of hallucinatory substances, such as amphetamines, LSD, and phencyclidine; alcohol withdrawal; episodic dyscontrol syndrome; postconcussion syndrome; explosive personality disorder; primary schizophrenia; acute mania; family disruption with spousal violence; and central nervous system lesions, in particular, temporal lobe seizure disorder.

Table 1. Differential Diagnosis of Episodic Violent Behavior

Disorder	Symptoms
Adult form of minimal brain damage, history of childhood minimal brain damage	Excessive activity, restlessness, emotional overactivity, concentration and attention problems, fears of loss of control
Antisocial personality disorder	Continuous and chronic acting out (repeated fights, drug abuse, trouble with law, multiple traffic violations).
Borderline personality disorder	Impulsivity and unpredictable behavior, unstable and intense personal relationships, frequent loss of temper
Pathologic intoxication	Violence and agitation inconsistent with low blood alcohol level, no previous history of violence
Violent dissociative states	Abrupt onset of frenzied behavior with no memory of event, no previous history of violence
Paranoid schizophrenia	Extreme anxiety, history of paranoid delusions
Episodic dyscontrol syndrome	Poorly defined, includes history of physical assault, especially on wife or children, impulsive sexual behavior, serious automobile accidents
Postconcussion syndrome	Increased irritability and "short fuse" following cerebral concussion
Epilepsy	Episode may be partially recalled, aura present, person may not feel angry, postictal confusion or dullness, childhood history of severe disorder

der. Urine and blood studies were unrevealing. The EEG showed a specific left temporal lobe focus. On evaluation one week later, the patient mentioned that he had had no further violent episodes. He was started on phenytoin, 300 mg daily, and a computerized axial tomography of the head was scheduled. This was normal. Subsequently, Dick has been seen at the Family Medicine Center for the past three years and has exhibited no violent behavior over that period. He and Jane are still married and now have one normal child. He continues to be a rather eccentric individual, often talking at length about his many religious and philosophical interests. There is no evidence that his thought pattern gets in the way of his social or occupational functioning. He has been maintained on phenytoin, 300 mg daily, for the past three years.

Discussion

The evaluation of previously nondifferentiated violence is one of the most challenging responsi-

bilities of the family physician. The agendas involved in such a case include the evaluation of one's own safety, the safety of individuals against whom the violent act has been carried out, the decision to hospitalize or provide a "structured environment" for such a patient, the use of medication to temper the violent episodes, and a differential diagnosis that includes psychiatric disorders, family disruption and spousal abuse, licit and illicit drug usage, and specific central nervous system lesions, in particular, temporal lobe epilepsy (Table 1).

The focus here will be on the differential diagnosis and treatment. Despite the multiplicity of diagnostic possibilities, there are many clues in Dick's history and the description of his violent behavior that suggest the diagnosis of temporal lobe epilepsy. Dick's history of brief episodes of "being in left field" as a child probably represent multiple petite mal episodes of childhood. Individuals with petite mal or other seizures of childhood are known to commonly develop other types of seizure disorders in adulthood.

While other psychiatric syndromes need to be considered in a case such as this, there is no clear

evidence favoring such diagnoses. Manic episodes usually first occur in the late twenties and are manifested with a thought pattern that includes grandiosity and hyperactivity and the belief that "everything is great." The patient gave no history consistent with unipolar depressive episodes and denied feeling depressed or having vegetative signs at this time.

Patients with violent or antisocial personality disorders are typically angry people between their episodes of violence and demonstrate violence in the context of personal frustration when they feel that their needs are not being met. A typical childhood pattern may include cruelty to others and to animals and generalized disregard for the well-being of others.

Because of their preoccupation with vague philosophical, religious, and societal concepts, inappropriate affect, altered sexuality, and tendency toward paranoia, patients with temporal lobe epilepsy are often thought of as being schizophrenic even prior to any obvious seizure disorder. This distinction can be extremely difficult to make, especially when obvious seizure episodes have not occurred. That Dick did appear to have a clear psychomotor episode and probably had seizure disorders in the past, and that his peculiar thought pattern did not appear to get in the way of his social or occupational functioning certainly makes the likelihood of temporal lobe epilepsy with interictal thought disorganization a more likely diagnosis than primary schizophrenia.

The use of licit and illicit drugs must be taken into consideration whenever a patient presents erratic or violent behavior or any change in his typical personality pattern. In particular, alcohol, amphetamines, LSD, and phencyclidine must be considered no matter how firmly the patient protests that he has not used such drugs. Medications such as steroids, digitalis, disulfiram, isoniazid, levodopa, methaldopa, and β -blockers have been known to produce agitation, restlessness, delirium, paranoid ideation, and frank hallucinations.

With the various forms of spousal violence such as physical assault and spousal rape, there is typically a previous history of a family disruption and disorganization and, in particular, a disregard and disrespect for the needs of one's spouse.

Dick and Jane's descriptions of the violent event were extremely helpful in separating the diagnostic possibilities. Not only was the violent

episode inconsistent with Dick's typical personality style, but it also appeared out of context in the situation. In fact, Dick stated that he felt in no way angry during the episode, and he did not recall there being a specific provocation to his acting the way he did. The episode of abdominal warmth that radiated upward in his body was probably part of the seizure aura, and his experience of gradual unreality was also consistent with this being a seizure episode.

Once a diagnosis is confirmed with an EEG, several questions arise. Seizures presenting for the first time in an adult necessitate looking for a space-occupying lesion of the brain, in particular, arteriovenous malformation and tumor. The emergence of computerized axial tomography allows for a relatively noninvasive approach with acceptable sensitivity and specificity. In terms of treatment, carbamazepine has been used as the drug of choice for controlling temporal lobe epilepsy, although there is no evidence that it is any more effective than any of the other medications used for other adult seizure disorders. The presence of schizophrenic-like thought patterns in the interictal periods raises the question of antipsychotic medication use in these patients. Although there are similarities between true schizophrenia and interictal behavior in patients with temporal lobe epilepsy, there is no evidence that they are in fact variations of the same cerebral process; therefore, there is no indication for the use of phenothiazines or other antipsychotic drugs in the control or modification of the thought processes of patients with temporal lobe epilepsy.

Thought and Behavioral Changes with Temporal Lobe Epilepsy

Personality changes associated with temporal lobe epilepsy have fascinated researchers for years because the disease presents one of the few models of a recognized personality pattern associated with a specific brain lesion. While there is currently a debate concerning the significance and frequency of violent episodes during temporal lobe epilepsy relative to other seizure disorders, there is more agreement about the interictal characteristics of these patients. Specifically, various investigators have identified the following:

1. Changes in thinking, including a suspiciousness,¹ metaphysical and moral speculations,² deep religious beliefs with multiple religious conversions,³ overpersonalization of life events,⁴ and a tendency to self-scrutiny and self-recrimination⁵

2. Changes in affect, including deepening of all emotions,⁶ grandiosity and exhilaration,⁷ discouragement and self-depreciation,⁸ increased temper and irritability,⁹ and loss of libido¹⁰

3. Changes in behavior, including hypersexual and hyposexual patterns,¹¹ exhibitionism,¹² attention to rules,¹³ orderliness and compulsive attention to detail,¹⁴ pedantism,¹⁵ and keeping extensive diaries and detailed notes¹⁶

Whether these characteristics represent a true profile characteristic of patients with temporal lobe epilepsy is currently being argued. Recently, Mungas¹⁷ has attempted to minimize the difference between interictal behavior of the patients with temporal lobe epilepsy and controls and has suggested that while there may be a difference in degree of nonspecific psychopathology, there is no indication of a specific behavioral syndrome in temporal lobe epilepsy. In contrast, Bear and Fedio¹⁸ have recently developed an 18-trait inventory for measuring behavior patterns in patients with temporal lobe epilepsy. The inventory suggests that the behavior profile as described above may reflect progressive changes in limbic structure secondary to a temporal lobe focus. They see the underlying mechanism as being enhanced affective association to previously neutral stimuli events or concepts. For example, experiencing objects and events with affective coloration engenders a mystical religious world view with an augmented sense of personal destiny, a heightened significance behind events that others dismiss constitutes a seedbed for paranoia, feeling fervently about rules and laws may lead to action in which the patient "takes the law into his own hands," while sensing emotional importance in even the smallest acts encourages ritualism and repetitiveness.

Implications for the Primary Care Physician

Patients who present with violent behavioral episodes or eccentric thought or behavioral patterns are at risk for inappropriate medical, as well as legal, interventions. An incorrect diagnosis

of schizophrenia, mania, illicit drug usage, and spousal abuse puts individuals at risk for receiving inappropriate psychotropic medication and for being labeled medically and socially deviant. The diagnosis of temporal lobe epilepsy should be considered in a setting of violent behavior that does not seem consistent with the patient's personality or with the social context when seen in individuals who have a history of one or more of the affective or behavioral manifestations as described above.

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