Gustav Flaubert’s “nervous disease”: An autobiographic and epileptological approach

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Abstract

More than 20 years ago, complex partial epilepsy of occipital-temporal origin was suggested as having been the “nervous disease” of Gustave Flaubert, one of the most famous French novelists. The aim of the present work, therefore, was to reevaluate the diagnosis of Flaubert’s “nervous disease” in the light of reemerged biographic information and letters, as well as the numerous scientific advances in epilepsy and its psychopathology in recent years. If the semiology of the reported attacks is considered, epilepsy ranks among the most probable diagnoses. In our opinion, psychopathological considerations suggest primary involvement of mesial temporal lobe structures with typical findings of ictal and interictal mood behavior.

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1. Introduction

Gustave Flaubert (1821–1880) was one of the most important French novelists. Famous for his masterpiece Madame Bovary, he defined a new era of literature, an objective and naturalistic realism about which Emile Zola said “the art has found its grammar.”

At a young age, Flaubert was shattered by a nervous disease, which had a radical impact on his life. It was considered to be “epilepsy,” but other diseases such as “psychogenic attacks,” “hysteria,” and “neurotic character” have been rumored throughout the literature. Against the background of the variety of these diagnoses, Gastaut [1] was one of the first to make a profound investigation of Flaubert’s illness to disprove the notion of “psychogenic epilepsy,” which was assumed and discussed by Jean-Paul Sartre in his final work L’idiot de la famille. In contrast to Sartre, Gastaut proposed that the seizure onset was due to an occipital lesion with secondary spread to the temporal lobe.

In recognition of the many scientific advances in epilepsy and its psychopathology in recent years, and in a thorough repeated study of Flaubert’s own meticulous descriptions of his disease, our aim in this article was to reevaluate the cause of Flaubert’s “nervous disease.”

2. Biography

Gustave Flaubert was born December 12, 1821, in Rouen, France (Fig. 1). His father, Achille-Cléophas Flaubert, was a surgeon at the Rouen municipal hospital; he died in 1846. Flaubert’s mother was a physician’s daughter, and was said to suffer from migraine; she died in 1872. The family had five children, three of whom died of unknown causes [2–6].

In March 1832, Flaubert entered the College Royal de Rouen, a military-run school. He was a brilliant student and won many prizes for his scholarly performance. However, he struggled with some peculiar “nervous irritation which made me abrasive and bad-tempered…. I used to stand apart, with a book of verse or a novel” [5]. He very soon developed an introspective temper, and began to devise his own philosophical and political ideas of revolt against the establishment and its hated bourgeoisie.
In November 1841, Flaubert was registered as a student at the Faculty of Law in Paris. After the onset of a nervous disease at the age of 22 in 1844, however, he abandoned his studies. In the summer of 1847, Flaubert regained his health and consecrated himself again to his literary vocation, which soon after was acknowledged and appreciated by other contemporary intellectuals such as George Sand and Ivan Turgenev. However, his ongoing nervous disease disturbed the process of writing and his social life. Flaubert was notorious for love affairs and visits to prostitutes, which finally led to his acquiring syphilis. His mother’s strong presence in his life, as well as his own fears and scruples concerning his unpredictable attacks, troubled his relationships. “I loved more than anyone ever did and the chance and nature of things led to the fact that I was gradually surrounded by solitude” [5]. Louise Colet, a successful poetess, played an important role in his life. Flaubert met her when he was 25. They became lovers, but their relationship, which lasted 9 years, was marked by many interruptions and quarrels. Flaubert never married.

After the end of their relationship, Flaubert started composing his most famous work *Madame Bovary* (1857). Publication of this work led to his prosecution because of the book’s infamous “adultery and immorality.”

After a journey to the Orient, Flaubert only rarely left his home in Croisset. He lived together with his mother and his niece of whom he was very fond. During his last years, he suffered from financial difficulties and increasing solitude because his mother and many of his friends had died. He devoted his time entirely to completion of his works including *The Temptation of Saint Anthony* (1874), *Salammbô* (1862), *Sentimental Education* (1869), and *Three Tales* (1877).

Flaubert died in May 1880, at the age of 58. The circumstances of his death were the subject of fabulous and mysterious speculations. An epileptic attack or even suicide was considered, but detailed bibliographic reports suggest most probably a stroke.

3. Flaubert’s “nervous disease”

3.1. Onset and course

In his correspondence, Flaubert left meticulous descriptions of his disease, of which “no one else ever had the slightest idea” [5]. Through autobiographic and bibliographic research, we reevaluated the onset, course, and clinical manifestation of Flaubert’s disease.

It was probably at the age of 22 that Flaubert had his first seizure. He was driving a carriage with his brother, in front the twinkling lanterns of an obliging carriage and a distant inn, when suddenly he fell to the floor as if he were dead. It was like “being swept away in a torrent of flames... sudden as lightning... an instantaneous interruption of memory... a letting go of its entire contents” [5].

About a month after his first seizure, he wrote to a friend: “You must know that I had a kind of cerebral congestion, in other words a miniature attack of apoplexy, accompanied by nervous disorders” [4]. This first attack was followed by four others, and Flaubert’s condition worsened.

Although Flaubert’s first seizure was reported in 1844 his epilepsy may have started earlier. Wall [5] and De La Varenne [3], in their biographies, described absence-like scenes in Gustave’s childhood: “So immersed in his reading, twisting a lock of hair in his fingers and nibbling at his tongue, that he used to fall flat on the floor. One day he cut his nose when he fell against the glass door of a bookshelf” [5]. Furthermore, Flaubert himself reported seeing “false things” in his childhood: “The regular movement lulled me to sleep so to speak, I thought I could hear Maria walking by my side... I knew very well that it was a hallucination which I was producing for myself, but I could not help smiling over it and I felt happy” [5]. Similarly, during the year after the first attacks, Flaubert described daily visual phenomena that emerged in the forms of flames, “Bengalese lights,” and “fireworks,” with a predominance of bright, exploding colors. They “dance before my eyes and hindered me to see” [4]. Flaubert also reports on a kind of macropsia in his visual phenomena. “In certain circumstances, it begins with a single image which grows bigger, develops and finally covers the objective reality” [7]. His friend Maxime du Camp reported a complex hallucination with a subsequent generalized seizure:
Flaubert cried “I’m holding the reins. Here comes the wagon, I can hear the bells jingling. Ah? I can see the lantern at the inn!” [5]. This hallucination reflected the circumstances of his first attack and may therefore constitute a déjà vu experience.

According to descriptions by his friends, Flaubert also suffered from generalized seizures. Louise Colet wrote in her diary: “He begged me not to call for help; his convulsions, the noises in his throat, the foam coming out of his mouth, the marks his nails left in my arm. He came round after about ten minutes” [5]. Maxime Du Camp, who was present at an epileptic attack, noted: “Then he gave a terrible cry … and went into convulsions” [5].

3.2. Signs of temporal lobe epilepsy with associated interictal psychopathological symptoms

The existence of an “epileptic personality” has been a subject of dispute for years. The prevalence of psychopathological findings ranges from 20 to 50% in the general epilepsy population [18]. In 1951, Gibbs [8] related temporal lobe epilepsy (TLE) to distinct psychopathologies. Since the publication of this hallmark article, many studies have investigated interictal personality in relation to TLE [9–12]. These neurobehavioral changes have been summarized in the “Geschwind syndrome,” although this entity, as well as temporal lobe-associated personality disorders themselves, remained controversial [13–15]. The syndrome “interictal dysphoric disorder” was thought to be more accurate for temporal lobe epilepsy-related affective disorders [16,17]. Today, the existence of an interictal behavior personality in persons with TLE is well established [12,19–21]. Common psychopathological characteristics include aggressiveness, irritability, emotionality, mood disorders, altered sexuality (mainly hyposexuality), hypergraphia, and religiosity.

3.3. Aggressiveness and irritability

Aggression seems not to be correlated to a specific form of epilepsy, but often occurs in TLE [22]. Also referred to as episodic dyscontrol, these episodes are characterized by sudden onset, violent behavior, and aggressive impulses, resulting in destruction of property or other damage [22,23]. Flaubert was famous for his outbursts of fury (les guelades): “Sometimes I want to beat my table with my fist and break it all to pieces; then when the fury passes I see from the clock that I’ve lost half an hour weeping and wailing” [5]. His outbursts showed both nonspecific triggers and accidental occurrence, proposing seizure-related episodic loss of control as well as emotional release at psychologically significant times that is caused mainly by temper.

In the context of an interictal dysphoric disorder (IDD) in TLE, Manchanda reported episodic excessive buildup of anger and fury, often resulting in verbal or violent outbursts [18]. The symptomatology of IDD, characterized particularly by irritability, with or without outbursts of fury, was introduced by Kraeplin in his 1923 psychiatry textbook [16]. Today, IDD is diagnosed in the presence of at least three of eight major symptoms: depressive moods, inertia, paroxysmal irritability, pain, insomnia, euphoric moods, anxiety, and fear. Flaubert exhibited most of these symptoms.

3.4. Depression and social consequences

Depressive disorders constitute one of the most common comorbid psychiatric conditions in epilepsy [18,24,25]. A relationship between depression and TLE has been demonstrated [20,26,27]. Depression in epilepsy usually has an atypical clinical manifestation, with a predominance of depressive moods, inertia, insomnia, and atypical pain, and is related to IDD [16,18,28]. However, it must be noted that a chronic disease such as epilepsy can itself evoke a secondary depression and cause psychological disorders and affective disturbances [20,29].

Many of Flaubert’s letters mention major depressive moods. He suffered from social isolation, which went along with his nervous disease [6] “I go from exasperation to a state of collapse, then I recover and go from prostration to fury, so that my average state is one of being annoyed” [5]. His friends also worried about his inapproachability and his misanthropist behavior. He often suffered from inertia and numbness: “I’m like a piece of wood … Passion, excitement being what I dread, I think that if happiness is to be found anywhere it’s stagnation. I live a life of calm, regular routine. If anyone disturbs me for a few moments it makes me feel quite ill” [5].

3.5. Fear

Fear is a well-recognized affective feature of auras observed in patients with TLE [30,31]. It is defined as “a sudden, often short, fearful affect at the beginning of or during an epileptic seizure, without context or any relation to a precedent causal perception or cognition” [32]. The involvement of temporal limbic structures, particularly the amygdala, has been demonstrated by neuropsychological and neuroimaging studies [31]. In addition, Mintzer and Lopez found that two-thirds of their patients with ictal fear had a depressive disorder [33]. Blumer pointed out that the coincidence of depression and anxiety may indicate the presence of IDD [16].

A feeling of fear preceded many of Flaubert’s seizures. “First there is an indeterminate anxiety, a vague malaise, a feeling of painful expectance” [7]. Flaubert compared the arrival of a seizure to mortal agony and experienced displeasing, frightful feelings. “In a hallucination, there is always horror, you feel your personality escape, you believe you’re going to die” [7].
3.6. Hyposexuality

Gastaut and Collomb were the first to investigate sexuality in patients with epilepsy [34]. Later studies underscored the association between hyposexuality and TLE, even though the incidence of sexual dysfunction has been a matter of debate, and the etiology of reproductive dysfunction remains uncertain [35–37]. Seizures may lead to endocrine changes that result in impaired sexual function and libido reduction, but the interaction is likely to be more complex [38,39]. In her review, Lambert postulated a multifactorial cause, involving neurological, endocrine, iatrogenic, cognitive, psychiatric, and psychosocial factors [35].

After the onset of his disorder, Flaubert withdrew from sexual activities. After some sexual experience in his adulthood, he decided to renounce all sexual activity in 1843. “A singular thing is how I have kept away from woman. I’m satiated with them… I’ve become impotent on account of those splendid secretions which have bubbled away inside me too long ever to be uncorked” [5].

3.7. Impact on intellectual work

The importance of temporal lobe structures to language and memory processing has been demonstrated by many studies [40–42]. Using neuropsychological testing, which included word fluency, verbal reasoning, sustained attention, and a verbal learning memory test, Elger and colleagues found that delayed verbal recall performance and, in particular, verbal memory loss are sensitive parameters of the cognitive deficits in patients with left and bilateral TLE [43]. Furthermore, intractable long-lasting TLE has been described to be associated with slow cognitive deterioration [44]

With the progression of his disorder, writing became a burden for Flaubert. “I had an attack a week ago … The work I’m doing at the moment—I’m writing at least, a rare thing for me” [5]. He noted a mental slowness in composing literary works. “This book gave me a great deal of trouble. It was the first thing I ever wrote laboriously.”

3.8. Hypergraphia

In 1974, Waxman and Geschwind [45] described extensive and sometimes compulsive writing, referred to as hypergraphia. Analysis of Flaubert’s phrasing before (Fig. 2) and after (Fig. 3) the onset of his epilepsy reveals remarkable differences: Flaubert’s notes grew extensive in their forms and were marked by extensive underlining, corrections, repetitions, and diminished spacing. He himself said that he was “progressing painfully … spoiling considerable quantities of papers” [5].

3.9. Artistic literary devotion or obsessive disorder?

Small case studies have associated obsessive-compulsive symptoms with epilepsy [46–48]. Obsessive traits were described within the range of an interictal personality change associated with TLE by Bear and Fedio [20]. Two further studies focused on the prevalence of obsessive–compulsive disorder in persons with TLE, and found a higher prevalence than in the general population [49,50]. Monaco and colleagues even suggested that obsession is associated with TLE through related limbic structures [49].

Despite the burden of writing, Flaubert worked tirelessly. “I work by lamplight for about ten hours in every twenty-four, and time passes by. But I waste so much of it!” [5]. In a wide and speculative interpretation and realizing that obsession may be necessary and important to an artist, Flaubert’s excessive literary preoccupation may reflect obsessive traits associated with TLE.

4. Conclusion

Flaubert’s work contains abundant autobiographic material. Many disorders have been proposed to have underlain Flaubert’s “nervous disease.” The major question remains: Did he have epilepsy and, if so, which kind of epilepsy?
Considering the short duration of the attacks, the sudden onset, and the triggers such as sleep deprivation, epilepsy represents a probable diagnosis. Flaubert’s brother, a trained physician, assumed the same: “Is it really the case that the epileptiform accidents can have started again? Gustave, however, does all he can, by the way he lives, to bring them on again: stays up all night, overworks, perpetual overexcitement” [5].

The onset of Flaubert’s epilepsy is not finally defined. However, the first reported generalized seizure in 1844 does not exclude possible childhood onset of epilepsy, particularly partial epilepsy with visual hallucinations. At the beginning of the disorder, visual phenomena and several generalized seizures dominated. There were different aspects of Flaubert’s hallucinations. His elementary visual hallucinations of typical geometric forms and colors indicate involvement of the occipital lobe, with probably secondary propagation to the temporal lobe, which was suggested by Gastaut [1]. On the other hand, Flaubert reported formed visual hallucinations, a characteristic of spread and the later predominance of ictal fear, an affective aura, which is commonly seen in TLE, with typical visceral sensations, feelings of anxiety and depersonalization. Similarly, other reported symptoms such as déjà vu and macropsia occur mainly in the form of auras in mesial TLE. Flaubert exhibited a broad spectrum of psychopathological symptoms including aggressiveness and irritability, ictal fear, depression, hyposexuality, hypergraphia, verbal language impairment, and obsessive behavior, which are now recognized to be associated with TLE.

In our extensive Medline and bibliographic research, we could not find any evidence as to whether the seizure disorder ceased or was lifelong. Flaubert was treated with regular bleedings, mercury massages, and bromide, the antiepileptic drug of that time. Cognitive impairment has been associated with bromide treatment. Dreifuss reported the side effects of bromide as concentration and memory deficits, irritability, depression, restlessness, sedation, and dementia [51]. These side effects may have contributed to Flaubert’s psychopathological pattern.

The etiology of epilepsy cannot be clarified in biographic material or oral and written traditions. However, febrile convulsions, trauma, infection, or congenital anomalies with secondary onset of epilepsy should be considered. Neurosyphilis as a potential cause of epilepsy is rather unlikely because of the early onset in childhood or adolescence.

Given the impracticality of appropriate posthumous diagnosis, other possible causes must be taken into account. On the one hand, Flaubert’s own meticulous description of his visual symptoms and his family history of migraine (mother) may evoke the notion of migraine with a visual aura. Particularly positive visual features of migraine such as scintillations, fortification spectra, and photopsia would correspond to Flaubert’s description. Further symptoms of Flaubert’s attacks, including hallucinations, loss of consciousness, and depersonalization are common to both epilepsy and migraine. In contrast, other major criteria, especially headache, nausea, and vomiting, are not reported. Furthermore, behavior and personality changes are not typical manifestations of migraine. On the other hand, Jean-Paul Sartre’s interpretation of psychogenic nonepileptic seizures (PNES) must be discussed as well. Although PNES may be characterized by a variety of symptoms similar to those of epileptic seizures, the semiology of Flaubert’s attacks indicates an epileptic origin.

In conclusion, based on the preceding considerations, we believe that epilepsy is the most likely diagnosis underlying the “nervous disease” of Gustave Flaubert. In our opinion, psychopathological considerations suggest primary involvement of mesial temporal lobe structures with typical findings of ictal and interictal mood behavior mentioned above, as well as unstructured visual aura features such as déjà vu and macropsia. However, a secondary propagation of occipital lobe epilepsy to mesial temporal lobe structures, as assumed by Gastaut and as reflected by Flaubert’s structured and colored elementary visual hallucinations, cannot be ruled out.

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