



## From the ‘Jumpers in Maine’ to the ‘Boy from Paris’: the life of Georges Gilles de la Tourette and the first description of tic disease

Od „Skakača u Mejnu” do „Dečaka iz Pariza“: život Georges Gilles de la Tourette-a i prvi opis bolesti tikova

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### Abstract

In 1885, French neuropsychiatrist Dr. Georges Gilles de la Tourette was the first to describe a disease of tics. His success was not unexpected, as he was a student of the renowned neurologist Dr. Jean-Martin Charcot. Georges Gilles de la Tourette was born on October 30, 1857, in Saint-Gervais-les-Trois-Clochers, France, as the eldest of four children. Immediately after graduating in 1881, he went to Paris for further training. His special interests included hysteria, psychotherapy, and hypnotism. By revising an article titled “Experiments with the ‘Jumpers of Maine’”, he concluded that a somewhat similar disorder exists in different cultures across the world. He soon described additional signs of the syndrome, including inarticulate sounds, echolalia, and coprolalia, and accentuated the hereditary nature of the disease. Insightful and dedicated yet short-tempered and arrogant, Georges Gilles de la Tourette was an inspiring physician and teacher. He left behind a significant legacy in the study of involuntary movements, particularly through his description of the syndrome that would come to be known as Tourette syndrome. This description of the syndrome is just a portion of his contributions to neurology and psychiatry. His work, often met with both admiration and criticism, reflects the complexities of his personality and the challenges he faced in his professional life.

### Keywords:

dyskinesias; history of medicine; history, 19th century; tourette syndrome.

### Apstrakt

Godine 1885, francuski neuropsihijatar dr Georges Gilles de la Tourette prvi je opisao bolest tikova. Njegov uspeh nije bio neočekivan, jer je bio učenik čuvenog neurologa dr Jean-Martin Charcot-a. Georges Gilles de la Tourette rođen je 30. oktobra 1857. godine u mestu Sen Žerve le Troa Kloše u Francuskoj, kao najstarije od četvoro dece. Odmah nakon diplomiranja 1881. godine, otišao je u Pariz na dalje usavršavanje. Posebno su ga interesovale histerija, psihoterapija i hipnotizam. Revidirajući članak pod nazivom „Eksperimenti sa ‘Skakačima iz Mejna’”, zaključio je da sličan poremećaj postoji u različitim kulturama širom sveta. Ubrzo je opisao dodatne znake sindroma, uključujući neartikulisane zvuke, eholaliju i koprofaliju i naglasio naslednu prirodu bolesti. Pronicljiv i posvećen, ali i nagle naravi i arogantan, Georges Gilles de la Tourette bio je inspirativan lekar i učitelj. Ostavio je značajan trag u proučavanju nevoljnih pokreta, naročito kroz opis sindroma koji će kasnije biti poznat kao Turetov sindrom. Opis ovog sindroma predstavlja samo deo njegovog doprinosa neurologiji i psihijatriji. Njegov rad, često dočekivan i sa divljenjem i sa kritikama, odražava složenost njegove ličnosti i izazove sa kojima se suočavao u profesionalnom životu.

### Ključne reči:

diskinezije; istorija medicine; istorija, 19. vek; turetov sindrom.

### Introduction

In 1885, Dr. Georges Gilles de la Tourette (Figure 1), a French neuropsychiatrist, was the first to describe *maladie*

*des tics* (a disease of tics), a condition that brought him great fame in medical circles worldwide. His success was not unexpected, as he was a student of the renowned neurologist Dr. Jean-Martin Charcot, often called the “Napoleon of

Neuroses". Gilles de la Tourette laid the foundations for understanding neuropsychiatric disorders involving tics and compulsive actions<sup>1,2</sup>. This article focuses on his life and the path to the discovery of the syndrome, which today, in his honor, bears the name Tourette syndrome (TS).



**Fig. 1 – Dr. Georges Gilles de la Tourette, portrait.**  
(available from: [https://en.wikipedia.org/wiki/Georges\\_Gilles\\_de\\_la\\_Tourette](https://en.wikipedia.org/wiki/Georges_Gilles_de_la_Tourette))

### Childhood and youth

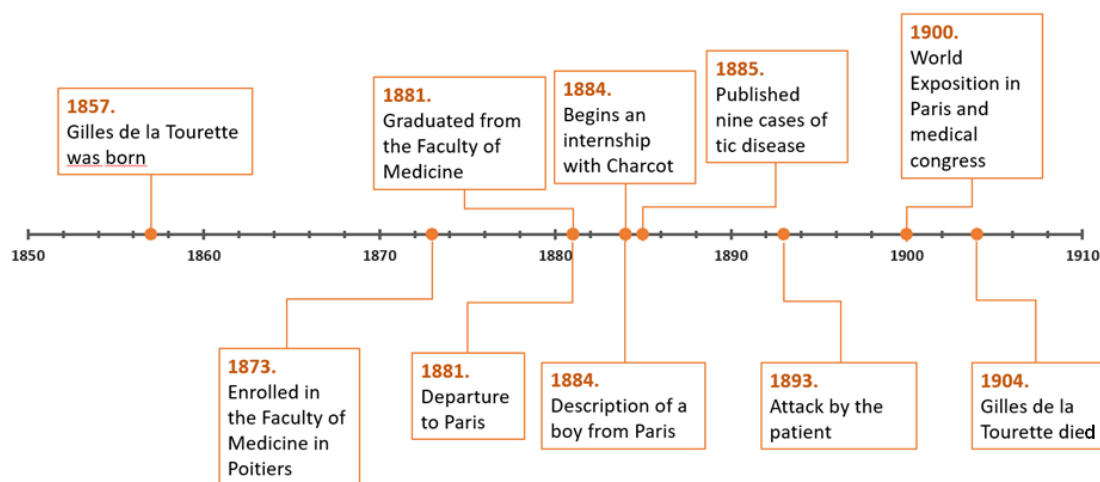
Georges Gilles de la Tourette was born on October 30, 1857, in Saint-Gervais-les-Trois-Clochers, France, as the eldest of four children. Significant life events of this physician are shown in Figure 2. His full name was Georges Albert Édouard Brutus Gilles de la Tourette. Although his father was a merchant, several members of his extended family were physicians, which may have influenced his career choice<sup>3,4</sup>. Not much is known about his early years, except that he was a brilliant yet mischievous student, known for his love of challenges. He managed to complete two years of high school in a single year, which allowed him to

enroll in the Faculty of Medicine at Poitiers, France, at a young age of 16<sup>4</sup>. There was a great deal of excitement that followed a period of *Belle Époque*—a period of peace, enlightenment, optimism, and economic prosperity in France from 1871 to 1914. That surely contributed to the aspirations and ambition of this curious Frenchman to join Parisian academic circles as soon as possible<sup>4,5</sup>.

### Career in neuropsychiatry

In 1881, immediately after graduating, Gilles de la Tourette went to Paris for further training<sup>1</sup>.

Three years later, he began his internship under the mentorship of one of the greatest neurologists of the time, Jean-Martin Charcot, at the renowned Salpêtrière Hospital in Paris<sup>6,7</sup>. Persistent and eager not to miss any opportunity, he worked “at a speed that exceeded human capabilities,” publishing, teaching, and practicing clinical medicine. His special interests included hysteria, psychotherapy, and hypnotism<sup>3</sup>. Friends described him as a cheerful and lively young man, though with a somewhat arrogant demeanor and an unrefined manner of speaking. He passionately engaged in discussions, often without patience for others’ opinions, which led to noisy debates<sup>3</sup>. Gilles de la Tourette also faced criticism, particularly concerning his behavior, relationships with colleagues, and interactions with the outside world. One of his harshest critics was Léon Daudet, a French journalist and writer, who described him as “neither good nor bad, nor industrious nor lazy, neither intelligent nor stupid.” He remarked that Gilles de la Tourette had “a hoarse and worn voice, sudden gestures, and a strange gait”<sup>8,9</sup>. Daudet considered him “a freak who jumps from one interesting topic to another, confusing his teachers” and noted that his behavior worsened over time, becoming less enjoyable<sup>9</sup>. Although Daudet’s criticism may have been valid, particularly regarding Gilles de la Tourette’s tendency to start multiple projects simultaneously, it also highlights his diverse interests. While studying movement disorders under the supervision of Charcot, Gilles de la Tourette wrote a book on spiritualism, several history texts, and served as a research associate and



**Fig. 2 – Significant events in the life of Gilles de la Tourette.**

playwright. He also worked as a critic for a French literary magazine, where he wrote under the pseudonym Paracelsus<sup>4</sup>. Some sources say he even dared to provoke the German Empire, writing about alleged hysteria within its army. This reportedly reached the Chancellor of the German Empire, Otto von Bismarck, who was infuriated by the notion<sup>1</sup>.

### Description of the syndrome

After Charcot assigned him to classify movement disorders, Georges Gilles de la Tourette revisited an article titled “Experiments with the ‘Jumpers of Maine’ “, which he had translated into French a few years earlier<sup>4</sup>. It is known today that he translated such articles into French with considerable freedom. The reason for such a free translation is unclear, but in some cases, it seems he did that on purpose<sup>4</sup>. In ‘Jumpers of Maine’, American psychiatrist Dr. George Miller Beard described people from Maine who, when extremely excited, would “jump, produce unusual sounds, and mimic other people’s movements”<sup>10, 11</sup>. This behavior, now recognized as a culturally specific phenomenon known as “startle syndrome” (we know it today as a disease distinct from ‘tic disease’), intrigued Gilles de la Tourette, who believed similar cases could be found in other parts of the world beyond the United States.

He began a literature search and came across two additional articles describing seemingly similar disorders, each with names in local languages due to cultural specificity. The first, called *latah*—a Malay term, as the disorder is primarily observed in Southeast Asia, consists of intense reactions to sudden stimuli and compulsive utterance of rude language (coprolalia)<sup>12</sup>. The second disorder, known as *miryachit* (or *myriachit* in English transcription), was described among patients in Siberia and presented a clinical picture similar to that of the ‘Jumpers of Maine’<sup>12, 13</sup>.

After studying these works, Georges Gilles de la Tourette concluded that all the descriptions likely referred to the same disorder, which he thought was similar to chorea. In 1884, he decided to document a case of a boy from Paris who appeared to have similar symptoms. This encounter marked Gilles de la Tourette’s first personal observation of the syndrome that would later bear his name<sup>4, 14</sup>. The following year, in 1885, he published an article describing nine additional cases, using the term *maladie des tics* (tic disease) to define the disorder. His mentor, Charcot, later honored him by naming it “Gilles de la Tourette syndrome” in recognition of his research<sup>4, 15</sup>.

Georges Gilles de la Tourette described additional signs of the syndrome, including inarticulate sounds, echolalia, and coprolalia (without accompanying gestures). He correctly noted that the syndrome typically begins in childhood, predominantly affects males, and does not impair intelligence or sensory functions, which remain within the normal range<sup>4</sup>. Furthermore, the prevailing belief at the time supported his assertion that the disorder is hereditary, although it is now recognized that other factors can also

contribute to its onset<sup>16</sup>. Interestingly, just a few years before the world saw the Eiffel Tower at the 1889 World Expo in Paris, the medical community was introduced to the concept of tic disorders.

### Events of 1893, downward trajectory, and death

The year 1893 was significant for Georges Gilles de la Tourette, as it was marked by three major personal tragedies. First, he suffered the loss of his son, followed shortly by the death of his esteemed mentor, Jean-Martin Charcot. In the same year, Gilles de la Tourette was also shot by a patient (Figure 3) who claimed to have been hypnotized against her will by one of his colleagues<sup>3</sup>. Although the injuries were not life-threatening, the attack had far-reaching negative consequences. It attracted considerable media attention, resulting in sensationalized newspaper coverage that tarnished Gilles de la Tourette’s reputation<sup>3</sup>.



**Fig. 3 – Illustration of the attack on Gilles de la Tourette. (available from: <https://commons.wikimedia.org/wiki/File:Petit-illustre-gdlit.gif>)**

Nevertheless, after his recovery, he organized a medical congress during the World Exhibition in Paris in 1900, and some sources say he did that with great success<sup>17</sup>. Unfortunately, shortly after the shooting incident, Georges Gilles de la Tourette’s health deteriorated significantly. Against his will, he was admitted to a psychiatric hospital in western Switzerland, where he was diagnosed with tertiary syphilis<sup>8, 18</sup>. Some sources suggest he was deceitfully taken there by being told that an important person, in fact a patient, would be waiting for him in Switzerland<sup>7</sup>. Throughout his time in the hospital, his family remained by his side, providing support during this challenging period. His health deteriorated further<sup>3</sup>. Gilles de la Tourette passed away in May 1904 at the age of 47<sup>3, 6</sup>.

### From *maladie des tics* to Tourette syndrome: modern neurobiological framing

Although the original synthesis of *maladie des tics* encompassed a broader clinical context, modern neurology draws a clear distinction, separating tic disorders from startle syndromes. Gilles de la Tourette's synthesis included both culture-bound hyperstartle phenomena (the Jumpers of Maine, myriachit, and *latah*) and cases from his own clinical practice that he added to these hyperstartle phenomena, thereby placing *maladie des tics* within a wider clinical framework<sup>4</sup>. Today, TS is defined as a chronic neurodevelopmental disorder characterized by motor tics and vocalizations (phonic tics) that persist for at least one year<sup>19, 20</sup>. The pathophysiology of this syndrome has not yet been fully elucidated. TS is thought to result from a disturbance in cortico-striato-thalamo-cortical (mesolimbic) circuits, including motor and limbic/associative loops, with consequent disinhibition of motor and limbic systems<sup>19–22</sup>. From a neurobiological perspective, a recent narrative review suggests an imbalance in neurotransmitter systems—particularly dopaminergic and serotonergic signaling—along with structural and functional changes in neuronal networks involved in motor control<sup>20</sup>. Recent findings broaden the classical neuroanatomical model of this disorder by indicating that, in addition to the basal ganglia, other brain regions such as the prefrontal cortex, motor cortical areas, and the cerebellum may also contribute to the pathophysiology of TS<sup>20, 23</sup>. This supports a

broader, network-based rather than a focal model of the disorder.

Furthermore, no single gene or set of genes has been identified that would explain most cases of TS<sup>24</sup>. Multiple loci have been mapped as candidate susceptibility regions, and one of the reported findings is a mutation in the *SLIT-TRKI* gene (13q31.1), which has been linked to dendritic growth<sup>25</sup>. However, this mutation appears to be very rare and has not been found in large series of affected individuals<sup>26</sup>. This supports the notion of a complex and heterogeneous genetic basis of TS. Overall, these observations point to the multifactorial and complex nature of TS, underscoring the need for further research to clarify the neurobiological and genetic basis of this disorder.

### Conclusion

Insightful and dedicated, though allegedly short-tempered and arrogant, Georges Gilles de la Tourette was an inspiring physician and teacher. He left behind a significant legacy in the study of involuntary movements, particularly through his description of the syndrome that would come to be known as Tourette syndrome. This work is just a portion of his broader contributions to neurology and psychiatry. Although the work of Georges Gilles de la Tourette was often met with both admiration and criticism, it reflects the complexity of his personality and the challenges he faced in his professional life.

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