

General paresis in 1880: Jaime Vera and his contribution to neuropsychiatry

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ABSTRACT

Jaime Vera López (1858-1918) was one of the most representative proponents of Spanish neuropsychiatry in the nineteenth century. In 1880, he completed his doctoral thesis, titled 'Brief clinical remarks on general paralysis of the insane' and presenting 32 patients with general paresis examined in the Madrid sanatorium founded by Dr José María Esquerdo; in this study, he notes that cognitive impairment is frequently associated with pupil anomalies. At the age of 24, he completed an in-depth experimental study of how destruction of the semicircular canals affects balance and orientation in pigeons; he was also a pioneer in the use of electrotherapy for neurological and psychiatric illnesses. Dr Vera enjoyed both exceptional intelligence and a cultured upbringing, but his research was curtailed by his poor health, the incessant demands of his private practice, and his role as a member and ideologue of Spain's Socialist Workers' Party.

KEYWORDS

Jaime Vera, general paresis, history of neurology, vestibular system, electrotherapy

Introduction

General paresis is a tertiary form of parenchymatous neurosyphilis of the brain, caused by *Treponema pallidum*.^{1,2} The discovery that certain neurological and mental disorders have biological causes was a milestone in the history of medicine.^{3,4}

The first pathological correlations in psychiatry are often attributed to Antoine Laurent Jessé Bayle (1799-1858). This belief is based on his 1822 thesis titled 'Recherches sur l'arachnitis chronique', and on the idea of mental illnesses as physical diseases of the brain^{5,6}; nevertheless, some prestigious authors consider Bayle's contribution to be a myth.⁷ In any case, general paresis was understood as a clinicopathological entity at a relatively late date.⁸ In the Netherlands, for example, it was recognised between 1870 and 1920,⁹ compared to 1888 in Turkey, and not until 1939 in Scotland and England.^{11,12}

Jaime Vera López (Salamanca, 20 March 1858 – Madrid, 19 August 1918) (Figure 1) is regarded as the quintessential representative of the third generation of neuropsychiatrists in nineteenth-century Madrid. The first generation was founded by Pere Mata i Fontanet

(1811-1887) and the second generation included José María Esquerdo Zaragoza (1842-1912), mentor to Vera López. In 1880, when he was only 22 years old, Vera presented his doctoral thesis at the University of Madrid; it described 32 patients with general paresis whom he had studied in Dr Esquerdo's private sanatorium.¹³ It was not the first time a researcher had examined this disease in Spain. Just two years before, Artur Galceran i Granés, then a resident at the phrenopathy clinic at Dr Juan Giné's Nueva Belen Asylum, had published an article on curing general paresis ('De la curabilidad de la parálisis general de los alienados')¹⁴; in 1882, researchers attending the Spanish phrenopathy symposium held by the same institution presented data on the high incidence of the disease.¹⁵

Jaime Vera was very well-known as a doctor in Madrid in the latter third of the nineteenth century, but he is better known today as one of the founding members and ideologues of the Spanish Socialist Workers' Party (Partido Socialista Obrero Español). In fact, this neuropsychologist was called "Spain's most erudite socialist". The main purpose of this study is to analyse the doctoral thesis that Jaime Vera defended in 1880. I

have also drawn from less well-known sources, including an experimental study of the functions of the vestibular system, studies of electrotherapy on neuropsychiatric disorders, psychiatric assessments from legal proceedings, and others.

Material and methods

Jaime Vera defended his original thesis, 'Brief clinical remarks on general paralysis of the insane', a slender volume of 37 elegantly handwritten pages, in June of 1880. The manuscript is now archived in the library of the Faculty of Medicine at Universidad Complutense de Madrid (Figure 2). The Madrid Athenaeum also possesses a print copy. Vera's biographical information was taken from *Ciencia y proletariado, con escritos seleccionados de Jaime Vera*, [Science and proletariat; selected writings by Jaime Vera].¹⁷ We consulted articles on the history of general paresis, both in Spain and abroad, as well as more recent literature on neurosyphilis.

Results

Dr Esquerdo's sanatorium

We cannot gain a clear understanding of Vera's thesis without recognising how much he was influenced by José María Esquerdo y Zaragoza (Villajoyosa, Alicante, 1842 - Madrid, 1912). Dr Esquerdo had opened his private sanatorium in Madrid's Carabanchel Alto quarter in 1877 (Figure 3). It only had 18 beds, but it was magnificently apportioned with a chapel and staffed with a chaplain, a resident, a physical education instructor, two 'practitioners' and two assistants, and various nuns and nurses. It also offered such leisure activities as billiards, gymnastics, ball games, music, and theatre.¹⁸ As one might expect, fees were quite high,¹⁹ but the care was excellent. Patients were treated with respect and given as much freedom as possible; repressive corrective methods were not allowed. Moreover, patients on the upper story would be able to admire vistas resembling a Velazquez landscape: the towering Sierra de Guadarrama and Madrid, "la Villa y Corte".

Writer Pérez Galdós named Dr Esquerdo "leader and apostle of two faiths: science and the Republic", alluding to his support for Manuel Ruíz Zorrilla's Radical Republican Party; Esquerdo would later find himself at its head (Figure 4).^{20(p375-378)} Master and pupil had many



Figure 1. Jaime Vera as a young man (A) and at about 50, wearing as always his Basque *txapela* despite his Salmantine origins (B)

*ligeras consideraciones clini-
 cas sobre la Parálisis general
 progresiva de los enajenados.*

Sanatorio de Carabanchel 15 de Junio 1880.
Jaime Vera y Lopez

Figure 2. Title, in calligraphy, of Vera's doctoral thesis which he completed in the Carabanchel asylum and defended on 15 June 1880. An examination of his signature and other handwriting samples reveals his meticulous penmanship (author's files)

points in common in their political and scientific worldviews: as we read in Esquerdo's prologue to Jaime Vera's thesis, "vocation arises from intimate affinities combined with a powerful attraction". Vera's vocation had been made plain some years before; in his own words,

since my student days...I have been interested in nervous and mental disorders. When I began classes, I studied under José María Esquerdo, who was teaching general pathology at Hospital Provincial. One day, I happened upon him in the street, and he said, "Vera, would you like to be the doctor and local head of my asylum?" I accepted, and once I had settled in, I found ample material for my experiments and research.²¹

General paralysis of the insane according to Jaime Vera

As mentioned previously, the thesis is based on experiences with 32 patients in Dr Esquerdo's sanatorium, where Vera worked as a resident (this sample of patients with general paresis accounted for 26.6% of the patient total). He identified two clinical variants: "An expansive form, with delusions of ambition, satisfaction, or grandeur; and a depressive or melancholy form, with persecutory delusions"; the two

forms may coexist. Esquerdo's prologue also mentions "a candid or childlike variety in which the patient often cries and worries over trivial matters and speaks vaguely using simple expressions; the patient may be offered a cigar and not dare to take it".

The 'expansive form', characterised by disinhibition and megalomania, was the most common subtype. The author includes several significant examples: "One patient called in his doctors and family, and once everyone had arrived, he appeared naked, saying, 'look at me, I'm Venus'". "[Another patient] claimed to have seven lovers; his wife declared she had never known such satisfaction, and even so, he still visited brothels and engaged in onanism". "Righteous men are now overcome by unbridled lust". In its initial stages, personality and behavioural changes were common:

The patient becomes expansive and jovial, more inclined to pleasure. The miser becomes a



Figure 3. The luxurious façade of Sanatorio Esquerdo, according to a period advertisement

spendthrift; the cautious man, excessively trusting; and the provident man neglects his interests.... Others become kleptomaniacs and steal objects of paltry value; others ruin themselves with absurd purchases.

Among other findings from the examination, he highlighted cranial shape, which could orient the diagnosis if it revealed “increase in the transversal diameter compared to the longitudinal diameter, with exaggerated convexity of the temporal fossas”. His description of the typical facial expression may also be relevant: “Eyes open wider than normal and inexpressive, dull gaze; fibrillar tremor of the lips, agitated speech; to the keen observer, the above summarises the facies of general paresis”.

Vera did not overlook the neurological characteristics of general paralysis; for example, he mentions the “slow and stuttering speech caused by uncoordinated movements of the tongue, which exhibits fine tremor”. He also described the inconsistent finding of “mismatched pupils or dilated pupils with diameters three to four times larger than normal”; this differs from the Argyll Robertson pupils, first described in 1869 and already considered pathognomonic for neurosyphilis in Vera’s time.²²

He was convinced that the disease was normally inherited: “The patient with general paralysis will pass on to his descendants a propensity for delirium, the soil in which the terrible disease will take root”. An unclean lifestyle, referring more specifically to “onanism and venereal excesses” would thus usher in the disease. “Husbands of nymphomaniacs are exposed to general paralysis,...even men of less bodily and genital vigour, as the victims of their wives’ demands”. We find the case of one M.S., “prurient and engaging in dark Bacchanalia”, who also exhibited delusions of grandeur, a persecution complex, and a tendency to steal “anything that was to hand”.

One factor triggering cerebrovascular complications was ‘cerebral congestion’. It was thought to be related to “excessive intellectual work, especially that performed under duress and exceeding the subject’s intellectual capacity”. He even claimed that death was caused by “some of the congestions arising in the final stage”. It is true that the course of the disease may be interrupted by more sudden events, such as the “comatose variant...”, in which the patient falls as if struck by lightning,...with partial recovery after the refrigeration phase [sic], due to epileptiform attacks or appearance of sudden-onset aphasia”.

Although general paresis was known to be predominant in men overall, Vera offered up a very striking opinion regarding the origin of the disease in the only two women in his series: “The only two women were manly and aggressive, and therefore susceptible to the same afflictions as the male sex” (they also had “noticeable beards”).

The in-depth description of the patient in advanced stages of the disease is intriguing (emphasis added). “Following a *period of motor ataxia...of locomotion*, the patient enters the final phases of the process: If the patient survives long enough, *he will experience general paralysis*, that is, *subjection to total immobility* due to lack of cerebral motor excitation”; he also characterises this period as ‘atonic’.

Patients with general paresis were not expected to survive in 1880; nevertheless, Galceran¹⁴, mentioned having successfully treated a patient by applying leeches to the anus. Nonetheless, Vera stated, “I have never heard of a convincing case for a cure”. He believed that the best approach was to commit patients to an asylum, where they would benefit from care and calm surroundings. This would serve to protect them from dangerous, cruel, and largely ineffective treatment methods; on 15 June 1880, at the Carabanchel asylum, he ended his text with the quote “*Primo non nocere*”.

Other scientific contributions

1. Function of the semicircular canals

Two years after defending his dissertation, Vera began a meticulous experimental study of the navigational ability of migratory birds, and specifically of messenger pigeons.²³ He observed locomotion and flight in pigeons whose semicircular canals had been destroyed unilaterally or bilaterally under chloroform anaesthesia by applying a heated needle.

The destruction of one of the horizontal canals resulted in contralateral deviation of the head and eyes and flying in circles. In contrast, a bilateral lesion produced a rhythmic head-shaking motion “as if saying no” and total inability to take wing. Interrupting the posterior canals caused the bird to “somersault backwards”; whereas damage to both anterior canals would result in a somersault in the opposite direction. These observations reminded Vera of the movements and gait of patients

during episodes of Ménière's disease. He disagreed with other authors who had interpreted the semicircular canals as "organs of muscle sensation" and proposed the hypothesis that they represented a type of "conscious and unconscious memory" that would explain the extraordinary navigational abilities displayed by messenger pigeons.

2. Electrotherapy

Vera was a fervent supporter of electrotherapy, which he considered "not a single treatment, but rather a veritable pharmacopoeia....with uses in a long list of nervous system illnesses as long as they are not destructive organopathies in terminal stages". "It has a truly restorative effect on peripheral and spinal paralysis and in lead poisoning cases, even those considered to be incurable." The W.A. Hirschmann company, based in Berlin, provided him with material to set up an electrotherapy station in his private offices; as Vera wrote, "my patients will be pleased that they are not spending



Figure 5. Dr Vera administering a radiotherapy session in his private practice with an assistant²¹

money in vain" (Figure 5). In 1890, he inaugurated another electrotherapy unit at Hospital Provincial in Madrid. Vera's efforts met with support from professors in other areas and the head of the Provincial Council of Madrid; he was even congratulated by minister Eduardo Dato, who pronounced these facilities "worthy of the best hospital in the world"²¹



Figure 4. José María Esquerdo (1) at a meeting of the Radical Republican Party. His audience included writer Benito Pérez Galdos (2) and Pablo Iglesias Posse (3), regarded as the founder of Spanish socialism

3. Pioneer in psychology

Vera, then the secretary of the Natural Sciences division of the Madrid Athenaeum, gave a lecture titled "The naturalist concept of psychology" (*El Liberal*, 9 February 1884). In it, he declared ("with great sincerity and frankness", according to the journalist) that psychological research should be framed from a social materialist perspective, and he urged forming a section of the Athenaeum to that end.

Remarks

Jaime Vera's neuropsychiatric works

While Jaime Vera was known for his intelligence, extensive general knowledge, and years of experience as an alienist at Hospital Provincial in Madrid, he was not a copious writer of scientific articles. The vision loss and likely Parkinson's disease that eroded his health at an early age, and even the successful private practice that he was able to maintain to the end of his days, may partially explain the scarcity of his contributions. Other factors

include his intense political activism; Marañón recalls seeing Vera's likeness all over the walls and façades of Madrid during election season.

From the beginning of his career, his interest in neurological problems was apparent in such writings as his first published article, reporting on a case of meningitis with delirium.²⁵ A prime example, already mentioned, was his meticulous experimental study of the function of semicircular canals in pigeons²³; he also briefly described the functions of the cerebellum.²⁶ His doctoral dissertation, presented in 1880, expounded on general paresis¹³; this was the first in-depth study of the disease to be carried out in Spain. Vera's interest in neurology never left him, as we glean from his enthusiastic support for electrotherapy.²¹

His most significant contributions to psychiatry were his famous court reports, which the press were only too happy to sensationalise. With his brilliant, persuasive style, he defended the accused on the grounds of mental incapacity. While still very young, he was called as an expert witness in the famous case of the Marquis of Larios, who probably had general paresis²⁷; later, in 1886, he testified in Father Galeote's scandalous murder trial.²⁸ His findings spared the life of Rafael Sancho Alegre, an anarchist who in 1913 attempted regicide against Alfonso XIII²⁹; and just a year before his death, Vera lent his expertise once again to the convoluted Don Nilo murder case.³⁰

As a paediatric neurologist, he was ahead of his time in condemning the ignorant, rigid attitudes of the doctors and teachers treating children affected by mental problems; the latter received support only from their heroic and self-sacrificing mothers. He differentiated between cases arising from brain lesions and "crazy children, as they are called by the populace", also distinguishing these cases from the "multitudinous category of partial disorders and imbalances".³¹ He completed an excellent analysis of emotional problems in adolescence in the context of the dramatic double suicide of two young students, cousins, whose bodies were found in Madrid's Parque del Oeste.³²

Jaime Vera's conclusions on general paralysis of the insane

During the 19th century, general paresis was known by a list of different names that should be clarified at this point. The term *enajenados* in the title of Vera's doctoral



Figure 6. Plaque on the school bearing Jaime Vera's name at no. 162 Calle Bravo Murillo, Madrid. Below it we read that the plaque was removed in 1939 and only restored in more recent years. Photo by the author. Note the discrepancy between the date of birth here (1858) and that reported by Castillo (1859), who wrote what is probably the best researched of the biographies of Jaime Vera. The following inscription can be read below the bronze plaque: "This dedication appeared on Jaime Vera Public School when it was founded. The plaque was recovered under the mayorship of Juan Barranco. 9 March 1987"

dissertation, rendered here as 'insane', describes individuals who are not of sound mind. These 'unsound persons' were known for their delusions of grandeur, a set of supposedly characteristic symptoms proposed in 1826 by Louis Florentin Calmeil (1798-1895), who had studied under Esquirol.^{33,34} Vera agreed with Galcerán's observations on two patients seen at Nueva Belén asylum in Barcelona. The patients had recovered from apoplexy-like episodes; one invented absurd contraptions, while the other claimed he would level the mountains around Barcelona and build a cemetery with gold walls in Passeig de Gràcia. "Insane, in common parlance".¹⁴

The alternative terms ‘paralytic dementia’ and ‘general paralysis’ also require further clarification. Philippe Pinel (1745-1826) had used the term ‘demented’ in reference to long-term patients at Hôpital Bicêtre in Paris who had been committed due to mental disorders for which no explanation was forthcoming after an autopsy study. ‘Dementia’ only began to adopt its current meaning at the beginning of the twentieth century.^{35,36}

‘General paralysis’, on the other hand, more or less meant ‘total paralysis’, or the status of a patient in the final stage of the disease when he would be rendered unable to walk and take care of himself. Vera’s term for this situation was ‘motor ataxia’. Indeed, some patients who develop hydrocephalus due to blockage of the convexity subarachnoid space caused by dense leptomeningeal fibrosis⁵ develop gait apraxia, incontinence, and progressive cognitive impairment.³⁷ Gait apraxia has been linked to bilateral lesions of the supplementary motor area,³⁸ which in general paralysis are caused by dilation of the lateral ventricles.

Most of the 32 patients examined in Vera’s doctoral thesis displayed megalomania, referring to the delusions of grandeur and disinhibition occurring in only 10% to 20% of all cases of general paralysis.³⁹ The symptom would result from a lesion to the medial frontal cortex, whereas atrophy of the dorsolateral frontal cortex and anterior cingulate would elicit apathy and lack of initiative, in addition to cognitive impairment.⁴⁰ Today, considering that neuroimaging⁴¹ and serological testing are used in the diagnostic process, the forms of presentation of general paresis are considerably more varied than those recognised in 1880, consisting of a florid psychotic syndrome in some cases⁴² or progressive dementia in others.⁴³

The traditional view of neurosyphilis as the ‘great imitator’ remains to this day. There have been cases that resembled encephalitis due to herpes simplex⁴⁴ or logopenic-variant primary progressive aphasia.⁴⁵ We now know that general paresis of the insane, that venerable entity, can present with psychiatric manifestations of any type.⁴⁶

In describing the aetiology of the disease, Jaime Vera adheres to the view of his professor, José María Esquerdo, whom he deeply admired:

Your life, exultant in its bountiful ideas and elevated passions, is dedicated to the redemption of madmen....no one has been more devoted to the study of general paralysis, no one has described it so brilliantly, and none have so exhaustively established its clinical, medical, and legal implications.

In light of this statement, Vera’s stance seems somewhat ambiguous. On the one hand, he remarks on “lesion to the cortical layer of the hemispheres and in areas of the spinal cord coordinated with encephalic grey matter....with diffuse intellectual periencephalitis [sic]”; nevertheless, he was swayed by Esquerdo’s views, which were based on the vague notions of pathogenesis in the popular theory of degeneration and its underlying currents of social Darwinism and phrenology.⁴⁷ He attached diagnostic value to a supposedly typical set of facial features and reiterated A. Retzius’ old belief that patients with nervous system syphilis had the brachycephalic skulls seen in primitive man.⁴⁸

The presence of these so-called ‘neuropathic features’ in a patient’s family history was a red flag for nineteenth-century scholars of cerebral degeneration. “The patient with general paresis will pass on to his descendants a propensity for delirium, the soil in which the terrible disease will take root”. In contrast, syphilis as the cause of general paralysis is mentioned only in passing.

Jaime Vera warns of the harmful effects of excessive mental activity, which could trigger episodes of ‘cerebral congestion’ that might result in incurable or even fatal apoplexy. The theory of cerebral congestion as a cause of cerebrovascular accidents had been advanced by Walter Moxon (1838-1888) on the grounds of some ambiguous autopsy observations, and it remained popular among doctors even into the first part of the twentieth century.⁴⁹

In addition to raising awareness of general paralysis among Spanish doctors (summaries of his thesis were even published by the popular press), Vera’s most relevant contribution was identifying the associated cognitive impairment. “Excessive debilitation of the mental and neuromotor functions is constant and progresses until all mental life ceases and cerebral function is extinct”. He attributed the above to “an irritative state arising from functional overexertion of the mind...leading to weakness from exhaustion of its abilities”; this is a clear allusion to the associated symptom of dementia, which would not be defined until 1906.³⁵

Function of the semicircular canals

The meticulous experimental study of the navigational abilities of pigeons, which Vera undertook when he was just 24, suggests that the youthful Vera had envisioned a life dedicated to science. His study methodology was

inspired by experiments completed by Flourens in 1824, when he observed changes in balance in birds whose brains had been weighted with lead balls or otherwise pierced.^{50,51} I should mention that Barraquer Roviralta, working from his home in Sant Climent de Llobregat, used similar methods to study flight in pigeons (personal communication with Barraquer Bordas). In fact, both described circular flight patterns; in Vera's study, this occurred after unilaterally destroying the horizontal semicircular canal or sectioning the corresponding vestibular nerve, and in Barraquer Roviralta's study^a, after damaging the anterior part of the frontal lobes with birdshot.

Electrotherapists before neurologists

In the nineteenth century, there were no 'nerve doctors' but rather electrotherapists practising a type of electrical neurology. Such was the case of the Russian-Swiss neurologist Constantin von Monakow (1853-1930) who became an experimental neurophysiologist in his later years.⁵² I should point out that Luis Barraquer Roviralta (1855-1928), with support from Bartomeu Robert Yarzabal (1842-1902) who had a keen interest in nervous disorders and later became mayor of Barcelona,⁵³ managed in 1882 to transform his modest Electrotherapy Dispensary in Hospital de la Santa Creu into a neurology and electrotherapy department.^{54,55}

Electrotherapy arose in the nineteenth century as a fundamentally clinical technique. One of its pioneers was Eduard Hitzig, who with Gustav Fritsch in 1870 had defined the excitability of the canine motor cortex. After the Franco-Prussian War, Hitzig worked as a general doctor and psychiatrist in Berlin; his knowledge of anatomy and physiology led him to apply the technique to his own patients.⁵⁶ Like many other nineteenth-century neuropsychiatrists, Jaime Vera used electrotherapy not only to treat neuromuscular lesions but also as a means of suggestion for motor disorders that were psychogenic in origin. In France, the technique would be used on soldiers returning from the Great War.⁵⁷

a Luis Barraquer Ferré recalled how a cat exhibited "progressive circular gait" after being hit with birdshot in the frontal lobe. He and his father then tested the effects of the injury on flight in pigeons. Source: Barraquer Ferré L. Contribución al conocimiento de la fisiopatología y semiología de los lóbulos frontales. *Anales de Medicina y Cirugía*. 1945;18:321-39.

A portrait of Jaime Vera

In the words of one star-struck journalist, Vera was "the mentalist, the sociologist, the man who swayed multitudes with his persuasive words....the one behind scientific and social rebellions.... ever deserving of the courtesy and respect of those on the opposite side of the struggle".⁵⁸ While a long-term resident of Madrid and a natural son of Salamanca, Jaime Vera was never seen without an enormous Basque *txapela* on his head, not even at home. It even appears on the bronze plaque outside of a public school bearing his name; the plaque was one of those recovered after the transition to democracy (Figure 6). Gregorio Marañón, the great endocrinologist and essayist, recalls Vera as a man of exceptional intelligence and ability to learn; like Lafora, he was "completely oblivious to clocks and calendars". On many occasions, his appointments with patients stretched well into the night.²⁴

Vera displayed premature ageing: "his back grew bent, his voice became halting, and he required the aid of a cane to walk". In an interview from 1913, the doctor and journalist José Eleizegui remarked on how poor Vera's eyesight had become by the age of only fifty. His description reads as follows:

I was ushered into a sort of office in the hotel Madrid Moderno [Calle Alcalá, 160]. Shortly thereafter, a man and a boy came down the stairs. The man was thin and he wore a sort of twill work smock, a wide-brimmed oilcloth hat, and spectacles that hid his eyes. He walked with a cane; he sat down at a table and we spoke. The conversation lasted four or five hours, but Vera did not notice that it had grown late and the room was now dim. I then realised that he was quite blind and that he had lost track of the time.

He was more successful in hiding other signs of his illness that only came to light after his death: "He had been brought low by his malady; an almost skeletal figure whose eyes could make out no light, and whose hands trembled from illness; nevertheless, he remained perfectly lucid".

In truth, Vera had been completely blind since 1912 and exhibited clear features of advanced Parkinson's disease. Despite his blindness, he continued to treat patients from his office and residence at o. 1 Calle del León, where he lived with his daughter. "They were comforted by the mere touch of Don Jaime's hand, although it had grown cold from the nearness of death".²⁴ He died on 18 August

1918 at the age of 60. Jaime Vera was laid to rest in the secular cemetery in Madrid. His discreet art deco mausoleum was created by Segovian sculptor Emiliano

Barral (Figure 7). A short distance from his tomb we can find those of other doctors, including Luis Simarro and Pío Baroja.



Figure 7. Jaime Vera's mausoleum in the secular cemetery in Madrid; the tomb was created in 1929 by sculptor Emiliano Barral López (1896-1936). Photo by the author. The sides feature a frieze in art deco style

Conclusions

Jaime Vera was one of Spain's nineteenth-century pioneers in neuropsychiatry. His 1880 doctoral thesis on general paralysis of the insane was based on observations of an ample number of patients, and it was one of the first studies in Europe to recognise that disease. He identified the typical association with cognitive impairment and highlighted that pupil anomalies were also frequent. His excellent experimental study of the function of the semicircular canals in pigeons suggested that he would have a bright future in research. However, his precarious state of health, his dedication to private practice, and his fervent defence of his political ideals all curtailed his potential as a neuroscientist.

Conflicts of interest

The author has no conflicts of interest to declare.

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