

José Rizal

Philippine National Hero and Ophthalmologist

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José Rizal (1861-1896) is one of the most revered figures in Philippine history. He was a multifaceted intellectual and a political activist, best known for his political writings that inspired the Philippine revolution and ultimately led to his execution by the Spanish colonizers. Rizal was also a physician who trained in ophthalmology under 2 prominent European ophthalmologists, Louis de Wecker and Otto Becker. *Arch Ophthalmol.* 2001;119:280-284

EARLY LIFE

Born 40 miles south of Manila at Calamba, into a prominent Filipino family, José was the seventh of 11 children. Taught first by his cultured mother, and later by private tutors, the young Rizal grew up in an intellectually stimulating atmosphere. His brother and sisters were all well-educated and his family's private library, of more than 1000 volumes, was quite possibly the largest in the Philippines at that time. Rizal was an extremely gifted student, especially in the humanities. He won literary competitions from a young age. He had an extraordinary capacity for language; ultimately, he spoke 22 languages and dialects. His professor of Greek in Spain said that he never encountered a student who excelled Rizal. Additionally, he studied drawing, painting, and sculpture, throughout his life; he even exhibited a bust at the Salon de Paris in 1889.¹

EDUCATION

Rizal received his secondary education at the Ateneo Municipal of Manila, where he was a star pupil. On graduation from the Ateneo, he won first prizes in 5 academic subjects, and his bachelor of arts degree was conferred from Santo Tomas University (the only institution in the Philippines authorized to grant academic

degrees).² From 1879 to 1882, he studied medicine, agriculture, surveying, and philosophy and letters at Santo Tomas University in Manila. Dissatisfied with his education there, due in part to the prejudices of faculty against native students, he continued his studies in Spain. In 1884, Rizal completed licentiate in medicine and in philosophy and letters at the Central University of Madrid. (The licentiate is an undergraduate degree similar to the American bachelor's degree but with a more vocational focus. Further medical education was not required to call oneself a physician or to practice medicine at that time. However, one could obtain a doctoral degree, similar to a contemporary American doctoral degree, after passing examinations and writing an approved thesis.)

Rizal kept meticulous notes of his clinical experiences in Madrid. His clinical and surgical notes contain details of lectures and case histories. The case reports include the patients' history, physical findings, diagnosis, differential diagnosis, and treatment, including prescriptions, diet, course, and even autopsy findings. Rizal recorded opinions of professors on the cases as well as his own observations. Some comments show his awareness of inadequacies in the system with an ironic sense of humor: "The San Carlos clinic which prints a seal of infection to every wound."^{3(p49)}

Although Rizal completed a thesis for his doctorate in medicine, he did not technically receive this degree, since he did not

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appear to read his thesis aloud as required by the Central University of Madrid. At the time Rizal completed the thesis, he was already studying ophthalmology in Germany. Reading his thesis in Madrid would have required an additional trip to Spain, which Rizal could not afford. Instead, he mailed his thesis to the university and hoped for its acceptance in this manner.

TRAINING IN OPHTHALMOLOGY

Rizal was inspired to study ophthalmology by his mother's failing eyesight and his desire to help her. In the late 19th century, ophthalmology was already a separate specialty, but there were no organized residency programs. Most postgraduate training was obtained in preceptorships under the tutelage of well-known professors. Rizal first studied the eye under the famous French ophthalmologist, Louis de Wecker (1832-1906). Although he held no academic position, de Wecker was a prolific author and an active teacher. He introduced ophthalmoscopy into France and advanced ocular surgery. He modified cataract and strabismus surgery, devised a new method of enucleation, advocated sclerotomy for the treatment of glaucoma, and was the first to use the term *filtration*.⁴ The de Wecker iris scissors are still in use. Rizal served as assistant at de Wecker's clinic from November 1885 to February 1886. He sent frequent letters to his family describing what he was learning in Paris, such as this excerpt from 1886:

From 50 to 100 patients go daily to the clinic of Wecker; there are days when they perform as many as 10 major operations. Many cross-eyes are set right. . . . In the past days a young woman tall, very tall, taller than myself by at least one palm, very elegant, beautiful, with a bad white eye that could not see, went there also. Wecker had to blacken her eye which was not hard to do, for it only needs time. As it is a luxurious operation, she could not complain of pain and she smiled. It is true that the eye is rendered insensitive so the patients get up and say that they have felt absolutely nothing: there are those who do not notice the operation and they only know it when they begin to see.^{1(p257-258)}

Rizal was highly impressed by de Wecker's surgical skills and felt his surgical training was progressing well. Living in Paris was too expensive, however, forcing him to look elsewhere for additional training. As he explained in the following part of the same letter, he decided to continue his studies of the eye in Germany, where the cost of living was more reasonable. He was undaunted by the task of learning another new language:

With respect to the study of the ailment of the eyes, I am doing well: I now know how to perform all the operations; I only need to know what is going on inside the eye, which requires much practice. In Germany, I am told that this is taught well, but one has to be registered and pay a sum of 10\$ a month. . . . If I see that, in effect, the cost of living is cheap, I will have myself registered, and if it is not I will see to it that two or three months will suffice for me. In six months, I hope to speak German, study a profession, continue my specialty; in five, living among Filipinos, I have learned French.^{1(p257-258)}

In February 1886, Rizal moved to Heidelberg. There he found university students at a pub and inquired about good professors in ophthalmology. He was directed to the Augenklinik (Eye Clinic) of Otto Becker. Becker (1828-1890) was professor of ophthalmology at the University of Heidelberg from 1868 to 1890 and helped make this department one of the best in Germany. He wrote a text on the anatomy of the normal and diseased lens and collected more than 1800 pathologic specimens.⁴ Rizal spent the next 6 months working as assistant to Becker.

I practise in the hospital and I examine the patients who come every day: the professor corrects our mistakes in diagnosis; I help in curing and although I do not see as many operations as I do in Paris, here I learn more the practical side. . . . [I plan] during the spring of '87 to return again to Paris and observe the operations of Dr de Wecker who, as a surgeon, seems to me very superior to all the others I have seen until the present. From there I can return to the Philippines and open a decent eye clinic.^{1(p256)}

On his way back to de Wecker's clinic in Paris in 1887, Rizal took

time to travel through Europe to learn from and visit with some additional prominent ophthalmologists and scientists. Among the ophthalmologists he visited, probably the most well-recognized today is Ernst Fuchs, whom he visited and worked with for a short time in Vienna. In Berlin Rizal met Rudolph Virchow, the "father of pathology," who invited him to become a member of the Berlin Anthropological Society. That Virchow, an eminent European scientist, would offer the young Rizal such an honor is a tribute to the magnetism of Rizal's personality and intellect, as thus far in his career he had made no significant contribution to science.

PRACTICE OF OPHTHALMOLOGY

Rizal practiced ophthalmology, mainly in Calamba (August 1887-February 1888), Hong Kong (November 1891-June 1892), and while in exile in the town of Dapitan (July 1892-July 1896). His specialized skills brought him fame, and patients often traveled long distances to seek his care. In Calamba in 1887, Rizal finally began to fulfill his lifelong dream of caring for his mother's eyesight. He may have operated on his mother there, possibly performing an iridectomy as a preliminary to cataract extraction (**Figure**). In Hong Kong in 1892, he successfully removed the cataract from his mother's left eye. Several months later, he sent her glasses with instructions to cover the right lens until he could operate on that eye. Two years later, at Dapitan, he extracted the right cataract. He was dismayed by her postoperative course, however, as she disobeyed his instructions and removed the bandages prematurely. He learned a lesson on the difficulty of taking care of family members:

I have operated on Mother with much success and she could see with much clearness immediately after. The postoperative course went well for three days, but encouraged by this, she did not follow my instructions and she got up and lay down alone, removed and put back the eyepad, always telling me that nothing was going to happen until her eyes became so inflamed (she suspected that



Dr Rizal Treating His Own Mother, Romeo Enriquez, 1960. Courtesy of the National Historical Institute, Manila, the Philippines. Adapted from JAMA.

during the night she received a blow. . . . The operative wound gaped, the iris prolapsed and now there is violent inflammation. Nothing can quiet her and she reads and goes to bright lights and rubs her eyes. . . . Now I can understand why it is prohibited for one to treat members of his family.^{3(p65)}

Experiences like this one may have formed the basis for the modern standard that surgeons should not operate on their immediate family. It has been said, however, that Rizal really only had 2 patients: his mother and his country. His dedication to both was clearly remarkable.

POLITICAL ACTIVISM

During his studies in Europe, Rizal was also working on his first novel, *Noli Me Tangere*. Through the medium of fiction, he portrayed a vivid and realistic picture of the social conditions in the Philippines. According to his own explanation:

Noli me tangere, a phrase taken from the Gospel of St. Luke, means “touch me not.” The book contains things that nobody in our country has spoken of until the present. They are so delicate that they cannot be touched by anyone. . . . I have attempted to do what nobody had wished to do. I have replied

to the calumnies that for so many centuries have been heaped upon us and our country. . . . I have unmasked the hypocrisy that under the cloak of religion has impoverished and brutalized us. . . . I have lifted the curtain in order to show what is behind the deceitful and dazzling promises of our government.^{2(p7-8)}

At the end of the 19th century, Spain was struggling to retain control of her colonies. The Philippines had been under Spanish rule since the early 16th century. Spanish colonization had both economic and religious motivations. At the head of the state was the governor general, appointed by the Spanish king, who was also the civil head of the church. The archbishop of the Roman Catholic Church held the title of lieutenant governor and was frequently a significant rival to the governor general for political power. Friars had marched with soldiers to achieve conversion of Filipinos during the conquest of the islands and worked very closely with the rural population. Thus, the friars held political control at the local level of government. The friar curate in each parish could effectively also serve as the local tax collector, inspector of schools, census taker, and chair of the boards of charity, health, and public works.⁵ Higher education in the Philippines was run entirely by the clergy. Through censorship of all forms of expression and Spanish control of commerce that limited contact with foreigners, the Philippines were maintained in an intellectual atmosphere much like that of medieval Spain.

The Spanish perpetuated their stranglehold of power by preventing Filipinos from becoming parish priests who could replace the friar curates. A principal proponent of appointing Filipino clergy to higher posts, Father Jose Burgos, was a friend and teacher of Rizal’s older brother, Paciano. In 1872, Burgos and 2 other priests were accused of complicity in a mutiny at a military arsenal south of Manila. Although it is unlikely that the priests were actually connected to the mutiny, their reformist activities made them suspicious individuals in the eyes of the Spanish friars. The military tribunal found all 3 guilty and publicly executed them.

Under Spanish rule, the Filipinos were treated as inferiors and were subject to numerous inequities, with little recourse. Once, as a young man, Rizal did not recognize a lieutenant of the civil guard in the dark of night and was beaten for failing to salute him. The outraged Rizal journeyed to Manila to report the incident and obtain redress, but the governor general would not receive him. Even more bewildering was Rizal's mother's experience with the Spanish justice system. When faced with a preposterous charge of an angry cousin, she received no assistance from Spanish officials, whom the Rizals had entertained in their home and had considered friends. On the contrary, she was humiliated by being forced to walk 20 miles to prison, where she spent 2½ before being acquitted. These events and Rizal's observations from his youth undoubtedly made a profound impact on the formation of his political thought and inspired his descriptions in *Noli Me Tangere*.

Noli Me Tangere was printed with borrowed money in Berlin in 1886. Holding to his policy of truth and directness, Rizal sent copies of the book directly to the governor general and the archbishop. When the book reached the Philippines, an uproar ensued. A committee of 3 Dominican professors from the Universidad de Santo Tomas denounced the book as heretical and subversive. The Comision Permanente de Censura (Permanent Censorship Commission) agreed, adding that the book attacked the integrity of Spain, its government, and its state religion. The commission prohibited its sale and circulation and jailed those found in possession of the book. While *Noli Me Tangere* earned Rizal infamy and disdain from the Spanish friars and officials, it earned him great popularity among his countrymen. Filipinos paid high prices for the few copies available in the Philippines and secretly discussed its ideas.

Despite concerns for his safety, Rizal returned to his hometown in 1887 and practiced ophthalmology and general medicine for nearly a year. His fame as an ophthalmic surgeon complemented his growing po-

litical fame. Filipinos knew him as a miracle worker who could give sight to the blind. In Calamba, Rizal was harassed and received death threats from his enemies. In 1888, he yielded to pressure from family and friends to leave the Philippines again. He traveled through Hong Kong, Japan, America, and Europe, focusing his work on scholarly research and political writing. During this time, he wrote articles for *La Solidaridad*, a Filipino reformist newspaper based in Madrid. Rizal became known as the leader of the Filipino students and activists in Europe who formed the Propaganda Movement. In the freer political atmosphere of Europe, these reformists could express their ideas in newspapers, magazines, and pamphlets, all of which were sent in letters to the Philippines.

Concurrently, Rizal was writing another controversial novel, *El Filibusterismo*, which was published in 1891. The title is derived from the Spanish term *filibustero* (filibuster), meaning a freebooter or pirate. In Rizal's time, however, *filibuster* was a terror-inspiring word, which the Spanish applied to any Philippine proponent of reform or opponent of the friars' wishes. Rizal said the word connoted "a dangerous patriot who will soon be hanged."^{2(p11-12)} The filibustero that Rizal knew about from a young age was Father Jose Burgos, the Filipino priest and teacher of his brother who was executed for advocating Filipinos for higher clerical posts. Rizal clearly knew how much trouble he was provoking, but patriotism had become his first priority. Like *Noli Me Tangere*, *El Filibusterismo* dealt with Filipino society and its need for change. Also like the *Noli*, it was avidly read and secretly discussed in the Philippines, increasing Rizal's fame and popularity among his compatriots, but fueling distaste from the Spaniards. As a result, Rizal's family and sympathizers were banished from the Philippines.

Distressed by how his politics had made life difficult for his family in the Philippines, the homesick Rizal longed to abandon his Hong Kong-based ophthalmology practice and return to his country. Despite opposition from his family and

the progressive patriots in the Propaganda Movement, who feared for Rizal's life, Rizal returned to the Philippines in June 1892. Before setting sail for his homeland, Rizal drafted 2 letters, which he requested to be published after his death. The first was to his parents, explaining his actions. In the second, he addressed his compatriots, acknowledging his dangerous position, and reiterating his unwavering beliefs:

The step that I have taken, or about to take, is undoubtedly very perilous, and I need not say that I have pondered it a great deal. I realize that everyone is opposed to it; but I realize also that hardly anybody knows what is going on in my heart. . . . I prefer to face death cheerfully and gladly give my life to free so many innocent persons from such unjust persecutions. . . . I wish to show those who deny us patriotism that we know how to die for our duty and our convictions. What matters death if one dies for what one loves, for native land and adored beings?^{2(p13)}

During his brief stay in the Philippines, Rizal formed the Liga Filipina, a society whose purpose he later defended in his trial before the Council of War as "not to incite the people to rebellion, but rather to encourage commerce, industry, union and the like."^{2(p22)} Despite the league's professed loyalty to Spain and only mild efforts toward reform, the distrustful Spaniards soon arrested Rizal. He was exiled to the remote town of Dapitan on the Philippine island of Mindanao.

Throughout his 4-year exile in Dapitan, Rizal kept very busy employing all his talents. He practiced ophthalmology and general medicine at no charge to the townspeople, while charging foreigners according to their means. He bought land and farmed it. He opened a school and taught the pupils himself. He worked to beautify and modernize the town, and continued his academic writing. When Rizal was granted permission to serve as medical officer in Cuba in 1896, the townspeople were sad to see him leave.

However, when Rizal arrived at Manila to embark for Cuba, he was detained and held prisoner. Rebellions had broken out in the Philip-

pines and were being associated with Rizal. He was considered a dangerous revolutionary and was charged and indicted for founding "illicit associations" and inciting the people to rebellion. Rizal was allowed to choose a defender only from a list of Spanish military officers in his trial before the Spanish Council of War. The Council, thirsty for revenge of the disorder caused by the uprisings, sentenced him to death and quickly executed him.

CONCLUSIONS

Contrary to the intentions of the Spanish, Rizal's death only strengthened the movement toward revolution. Outraged by the death of their hero, Filipinos rallied to the cause of independence, starting the rebellion that would eventually end Spanish control of the Philippines. A true martyr, Rizal spoke out for injustice when others were complacent. His ideas helped formulate a national identity for the Philippines, which was a new concept in Asia, then under colonial rule. He defended his beliefs to his death. His country suffered a tremendous loss with the death of this intellectual giant, who would likely have played an important part in establishing independence and recognition for the

Philippines. The world lost an exemplary citizen, a multitalented man with a brilliant mind. He accomplished so much in his brief 35 years, one can only imagine what contributions he would have made to the world and to the field of ophthalmology if he had lived a full life span. To his patients he gave sight, and to his country he gave vision.

Rizal has become a symbol of the Philippine struggle for independence, and he is known there as the national hero. December 30, the date of Rizal's execution in 1896, is celebrated as a national holiday in the Philippines. The Jose Rizal College was dedicated to his honor in Manila in 1919. There are commemorative monuments to Rizal in Manila near the site of his execution in Luneta Park, in his hometown and most Filipino towns, in Heidelberg, and Chicago. His portrait appears on the Filipino 2-peso bill. The region around Manila, including his hometown of Calamba, was designated a province and named Rizal. His novels are required reading for Filipino high school students. Jose Rizal can perhaps be best summarized using his own words from the poem he wrote from his cell the night before execution. One of the last stanzas of "Ultimo Adios" (Final Farewell) shows his selfless de-

votion to his country, his loyalty to his family, his deep spirituality despite criticism of the church, and his artistic grace.

Land of my idolatry, my misery of miseries,

Beloved Philippines, hear this last farewell.

I give you now my all, my parents, all I have loved.

I go to where there are no slaves, no hangmen, no oppressors,

Where faith does not slay, where he who reigns is God.^{5(p323)}

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