
Chapter 1

Autopsy of a Bloody Era

(1800–1860)

The most nearly trustworthy records of diseases prevalent when Europeans first touched American shores are those of the Spanish explorers, for they were the earliest visitors who left enduring records . . .

Esmond R. Long in
A History of American Pathology.¹

IT WAS LATE January, practically springtime in South Texas, and the day was still fresh with the hope that morning brings. Suddenly, Francisco Básquez walked up to Private Francisco Gutiérrez of the Alamo Company.²

“I am going to send you to the devil,” he vowed, swiftly plunging his hunting knife into Gutiérrez. As the long keen blade slid between the soldier’s fourth and fifth left ribs, Básquez imparted a quick, downward thrust.

Soon after, on that morning of January 27, 1808, Don Jayme Gurza,³ Royal surgeon for the Alamo hospital at San Antonio de Bexar, examined the victim, reporting that he showed evidence of serious injury, had a weak and fast pulse, and was vomiting blood.

“After observing all the rules and regulations demanded by medical procedure, Doctor Gurza applied the ‘proper remedies,’ including a plaster.” Gutiérrez, however, died about twelve hours after admission to the Alamo hospital, and the doctor then performed his

final diagnosis—the autopsy. He found the abdomen full of blood. The hunting knife had wounded the lung, lacerated the diaphragm, and severed large “near by” vessels.

“Justice then, as now, was slow and halting,” Pat Ireland Nixon observes, “Básquez skipped the country. However, he was tried *in absentia*, the trial lasting three months and filling 56 pages of the *Spanish Archives*, and was condemned to die by hanging.”

Dr. Gurza himself later was imprisoned, as were other loyalists, during a Mexican uprising against the Spaniards. After pleas from his patients, he was allowed to continue attending them, but was forced to testify that the leader of the revolt, Captain Juan Bautista Casas, was physically able to stand trial for high treason. The trial participants at Monclova ordered Casas demoted, shot through the back, his head cut off and sent back to San Antonio where “it was displayed aloft a pole on the *Plaza de Armas* as a grim reminder to all potential traitors.”

By now, Dr. Gurza’s health was broken, and on August 29, 1811, the Governor of the Province of Texas requested his release. Apparently reassigned to duty in Coahuila, he signed his last record in Monclova on June 14, 1817, testifying to the disabled status of a soldier.

Dr. Gurza’s autopsy of Private Gutiérrez nine years earlier had not been the first recorded on a Texas sojourner. In 1754,⁴ another unfortunate immigrant, Joseph Blancpain, one of three Frenchmen, was captured at the mouth of the Trinity River. Charged with illegal traffic in guns and ammunition with the Indians, he was taken to Mexico City.

“Possession of 2300 deerskins was proof,” comments Nixon, “that his business was good.”

In prison, Blancpain grew sick, and on February 6, 1756, he died. Dr. Francisco Camarena, court physician, was assigned to perform the autopsy, and reported the prisoner had been “sick of malignant fever and had clots in the blood. He also had pleuro-pneumonia.”

“Each of these diseases,” Dr. Camarena stated, “would have been fatal to him. This is what we declare and certify.”

Autopsies in early Spanish America were cited more often than in North America,⁵ and as early as 1694 in Peru.⁶ However, the first reported autopsy in North America was performed at Baltimore in

1637,⁷ and by the early nineteenth century in the United States, a considerable number were recorded. For example, “hospital cases” at Pennsylvania Hospital date to 1804, with many more autopsies recorded in the 1820s.⁸

In Spanish Texas, aside from the occasional autopsy or incident, professionally-trained physicians rarely had been available in the remote province since Cabeza de Vaca’s landing at Galveston in 1528, Spanish armies customarily not sending physicians with their soldiers to Texas. In some ways, however, the conquistadores found their “hosts,” the Stone-Age Indians, offered a fairly sophisticated understanding of medicine. In addition to their well-known use of herbs and certain medical and surgical techniques, they had learned something about anatomy through the dissection of animals, and they knew the names and forms of human bones. Travelers brought and concocted their own home remedies, and adapted others from the Indians. Later, the Spanish *padres* also provided medical care, but it was not their priority—Christianizing the Indians was.⁹ The more sophisticated physicians of the day remained near Mexico City where there was civilization and better facilities. Although there were at least ten hospitals in Mexico, the first Texas hospital—where Dr. Gurza had been assigned—was not set up until 1805 in the Alamo, with straw mats as beds.^{10,11} That year, the Spanish Monarchy did give heightened medical attention to the Province of Texas, promoting free smallpox vaccinations. Ironically, the Spaniards likely had introduced smallpox—plus measles and syphilis—to the New World. All three diseases devastated the Texas Indians.¹²

Another autopsy, with engaging circumstances, was recorded a few years after Mexico won independence from Spain, and Texas and Coahuila were tied together as one Mexican state. It shows perhaps that the justice-of-the-peace system had an early foothold in Texas.

In San Fernando de Béjar, Dr. Joseph Brown, a physician, died on the night of September 21, 1829. Early the next morning, Jorge Antonio Nixon appeared before Gaspar Flores, “sole constitutional *alcalde* of the city,” declaring the doctor died of natural causes. The *alcalde* went to the Brown residence, found the body lying on the ground “with cadaverous aspect and dead of natural causes.”

Dr. Brown had no heirs, so after an autopsy, the *alcalde* “pro-

ceeded at once to inventory his furniture, jewelry and other personal property found in the house and said to belong to him.”

By law, Dr. Brown’s property was to have been valued at its lowest appraisalment “by some skillful or intelligent person in the medical and surgical profession,” but, said the *alcalde*, “there not being any professors of said Science in this city, I, Flores have named and appointed Phillip De Witt and Geronimo Gazano as appraisers.”¹³

Despite not being “men of science,” De Witt and Gazano somehow appraised the “not inconsiderable” estate,” which also included colorful and fashionable clothes and Dr. Brown’s accounts. Although 1 to 142 pesos were due, none had been paid—except the “faithful Juana Segunda on four occasions brought in nine eggs and James Martin was credited with 11 pounds of bacon on a bill of 142 pesos.”¹⁴

Elsewhere in the world, post-mortem examinations were receiving a great deal of attention. Anatomical pathology at this time was experiencing a zenith and was advancing particularly rapidly in France. After their own revolution, the French had worked with fervor to make science analytical and practical. They also had to face abhorrent conditions in their hospitals, which they were zealously addressing.

“Out of this, in the opening years of the nineteenth century,” Long writes, “came if not an understanding of human ills, at least a clearer correlation than ever before of symptoms and underlying organic changes. An industry surpassing belief pervaded all medical instruction. Masters and pupils were in the wards at daybreak. Students finished their day’s work late at night, completing in their bedrooms the dissection of noisome specimens from the day’s post-mortems. The most brilliant clinical teachers the world has ever seen carried the triple load of care of the sick, clinical instruction, and painstaking dissection of the dead, burning out their strength in a fever of investigation. Two above all others in this manner brought pathology to new ways, François Bichat and René Théophile Hyacinthe Laënnec . . .”¹⁵

Bichat had introduced tissue pathology, Laënnec had contributed significantly to special pathology, and Cruveilhier’s teaching atlas and text had influenced the field. In England, John Hunter had established experimental pathology, and Matthew Baillie had published a series of engravings and the first modern text of pathology.¹⁶

And, although pathologists had long studied the dead to determine the causes and nature of disease, another development in England during the 1820s facilitated greater attention to disease in the living. Joseph Jackson Lister had improved the “one essential mechanical aid” in pathology by developing the compound microscope with achromatic objectives.¹⁷

It would be a long while, however, before the benefits of French and English pathology and the “new and improved” microscope reached the distant Texas frontier. In the 1820s, physicians remained scarce in the remote and dangerous territory where Americans had begun to arrive. Despite the physician shortage, Stephen F. Austin was attempting to establish the foundations for good health care. In 1823, he had the vision to include public health in the outline of the constitution he wrote for the Republic of Mexico, and in 1828, he promulgated health rules, calling for hospitals and poor houses; clean streets, markets, public places, and prisons; draining of lakes to prevent stagnation, and credentialling of physicians.¹⁸ In 1830, vaccination for smallpox was required and the first board of medical examiners was formed; in 1831, the first board of health was established to address smallpox in Bexar and Goliad.¹⁹ Coincidentally, that same year, the San Felipe *Ayuntamiento*, the town council, began addressing regulation of physicians’ fees.^{20,21}

It had been nearly twenty years since smallpox had ravaged Texas, but the outbreak of 1830 and 1831 called for concerted action. Along with orders from Coahuila came a detailed brochure written by Citizen Miguel Muñoz²² of Mexico City. Besides extensive advice on treatment, Muñoz described autopsy findings:

After death the smell of the corpse is unbearable, its external appearance is horrifying and the history of its sufferings is very pitiful. The face is hideous and carbonized in many spots, as well as the body. The skin is shrunk, thick and swollen, and full of varied blisters, alternating with openings or cracks of different length and depth. The eyes are turned, the hair raised, the tongue destroyed, the palate and throat ulcerated, and, at last, the anus torn.

If the body be opened, similar gangrenous ulcerations are found on all internal surfaces which were in contact with the external air, from the mouth down to the stomach and lungs on the upper part, and from the margin of the anus up to the rectum in the lower, etc.: the rest of the digestive canal is just like the lungs, spongy-like, thick, and flooded by greasy, bloody, mucous flu-

ids,—a result of the extra secretion during the blistering and disorganization of the individual. The capillary system, white and red, is very much injected with black blood, and the arterial system is empty in its common branches; but the blood accumulated in the heart is carbonized and completely dissolved.

Eager to settle in Texas for the new land, immigrants primarily were concerned not with their health but in taming the frontier. Except during acute epidemics of smallpox and cholera—when the boards of health invoked strong measures—the settlers knew they could not depend on a doctor's help. Ferociously independent anyway, the Texans generally chose to treat themselves with endless varieties of herbs. Although physicians arriving from the United States no doubt were familiar with medical advances both there and in Europe, they, too, usually came for the land, and their own priorities often prevented them from practicing medicine. Instead, they led or joined the "Texians" agitating for independence from Mexico. In fact, when the War for Texas Independence began in the mid-1830s, many would fight—some to die on battlefields from the Alamo to San Jacinto.

Despite the lack of physicians in the early years, Dr. John Paul North reports that surprisingly good medicine was sometimes practiced. He cites, for example, Dr. Alexander Ewing who had attended courses at the Royal College of Surgeons at Edinburgh and Ireland and was surgeon general of the Texas army at San Jacinto. Dr. Ewing treated General Sam Houston for a compound fracture of the ankle, and accompanied the general to New Orleans—against orders of President David G. Burnet. For the insubordination, Burnet discharged him from the army.²³ There were other notable physicians, too, whose names long would be remembered by Texas medicine—among them Drs. Ashbel Smith and Anson Jones.

When the War for Texas Independence was settled, and the Republic of Texas became a reality in 1836, citizens faced the immense challenges of forging a sovereign nation out of the raw frontier. It was in this era that physicians became "all-important figures in social and civic obligations and in the daily lives of patients and friends."²⁴

Doctors in practice during this period gave considerable attention to diagnosis, utilizing only the crudest of clinical pathologic techniques. Diabetes, for example, might be detected by the gathering of flies around the individual's urine.

“Laboratory aids were practically non-existent at the time,” writes Nixon.²⁵ “Diabetic urine was detected by taste and perhaps by fermentation, but that was about all. Consequently much store was laid by observation, palpation, and common sense. The pulse was studied very closely. Twenty-one different types of pulse are described by Massie [J. C.] and the diagnostic significance of each is explained. The facial expression, the type of breathing, the shape of the abdomen, the position in bed, the appearance of the sputum and the stools, and many other observations are emphasized.”

Texas newspapers were the source of most medical information, and delighted in carrying advice. Yet, they often avoided publication of news regarding serious epidemics of smallpox, measles, cholera and yellow fever—not wanting to discourage immigration.²⁶ The first “medical text” in Texas was a pamphlet published in 1838 by Dr. Theodore Leger, *Essay on the Particular Influence of Prejudices in Medicine, Over the Treatment of the Disease Most Common in Texas, Intermittent Fever*. Dr. Leger thoroughly condemned his fellow medical practitioners and then retired to run the *Texas Planter*, his weekly 2,000-circulation newspaper at Brazoria.

Other physicians, however, in 1838, also sought to raise standards, and Houston doctors formed the Medical and Surgical Society of Houston—its first president, Dr. Alexander Ewing.²⁷

The first book of “great medical merit” published in Texas was Dr. Ashbel Smith’s *An Account of the Yellow Fever Which Appeared in the City of Galveston, Republic of Texas, In the Autumn of 1839, With Cases and Dissections*. Dr. Smith, a Yale medical graduate, had arrived in Texas in 1837 to serve as surgeon-general of the Army after practicing in North Carolina and postgraduate work in England and Paris, “the mecca of medical students of that day.” He would serve also in many other capacities in the Republic and the state, and become president of The University of Texas.²⁸

At the time of Dr. Smith’s 1839 paper, the first formal pathology society in the United States for which there are records, the Philadelphia Pathological Society was established.²⁹ Pathology was gaining more attention in American medical schools, but still was met with apathy. In 1839, Samuel D. Gross published his *Elements of Pathological Anatomy*.³⁰ The latter, Long says, was “a great achievement and an honor to America. Its three editions covered the period in which pathology was making its greatest advances in Europe under Rokitansky and Virchow.” Gross was “hardly touched by this

movement, however, building the text out of his understanding of French pathology and his own constantly increasing surgical experience. Virchow himself considered it an excellent book. It never achieved the popularity it merited as a text, however, not because it was itself inferior, but simply because in America the time was not ripe. Yet, except for the discussions of pathology in medical and surgical texts, and the newly appearing compilations on medicine and surgery, it was the only comprehensive American text until the compendia of Welch and Delafield and Prudden appeared in 1880s.”³¹

During the second quarter of the nineteenth century, a few journals in the United States also carried information on pathology. Most journals, however, were short-lived and did not add significantly to American pathology.”³²

As Long notes, “. . . it is impossible to distinguish medicine and pathology in the formative years of medical progress in America. For the development of pathology a medical profession was essential, and that profession had to be supported by schools, societies, journals and all the material adjuncts necessary for instruction and communication of ideas.”³³

Far from the activity on America’s eastern seaboard, Texans were molding their new Republic and lacked even basic institutions—not to mention the schools, journals, and societies necessary to support a scientific medical profession and therefore the development of pathology.

Even statehood would not nurture immediate advancements. On July 4, 1845, Congress approved the annexation of Texas to the United States, and the last president of Texas, Dr. Anson Jones, solemnly declared, “The Republic of Texas is no more.” He and others had contributed mightily to public service in Texas during the Republic, and their work was far from finished. Again, however, war would interfere with the building of a stable society, for annexation brought on a dispute over the Southern boundary leading to the Mexican American War. And, once again, physicians, including the famed warrior-physician-Texas Ranger John Salmon “Rip” Ford, would become leaders of war.

The formally-declared war over the land between the Nueces and the Rio Grande wasn’t the only worry of Texans. Many original occupants of the state, various tribes of Texas Indians, remained adverse to intruders in the territory they had long roamed. In 1849

alone some 200 settlers were killed or carried into captivity, and for years to come there would be clashes and bloodshed.³⁴

Meanwhile, physicians tried once more to establish a medical infrastructure. In 1848, Ashbel Smith led a group of Galveston physicians in seeking a state charter for the Galveston Medical and Surgical Society—which almost became a statewide society—but the entire effort became bogged down in the state legislature and failed.

More medical texts by Texas physicians had begun to appear. In the year that the American Medical Association was being formed, 1847, Dr. Absalom C. Denson of Cherokee County published *The Southern and Western Waybill to Health*, and Dr. J. C. Massie in 1854 published his *Treatise on Eclectic Southern Practice of Medicine*.³⁵

Massie's book devotes "much space to the recognized infectious diseases and less to epilepsy, scurvy, menstrual disorders, skin affections, and other less well known ailments." Massie believed rickets was due to a "deficiency of the earthy substances in the formation and growth of the bones" and gave cod liver oil for its relief. He also used mercury and potassium iodide for syphilis; and, for gonorrhoea, he used copaiba and sweet spirits of nitre with injections of zinc sulphate and silver nitrate.

Far around the globe in Germany, Rudolf Virchow was about to shake the world of pathology, assuring the future preeminence of German pathology. In 1848, the Prussian government had sent Virchow to Silesia to investigate a serious epidemic of typhus fever. "His report was a masterly compilation of terrible medical and social facts regarding the unfortunate inhabitants of the region studied, but too democratic in spirit for the reigning powers. While writing his report the indefatigable Virchow was also cooperating in the publication of a semi-political journal *Die med.izinische Reform* and airing views in sympathy with the revolutionary movement then in progress. This was too much, and the young pathologist was removed from his position."³⁶

But Virchow quickly was called to Würzburg to assume the chair of pathological anatomy, the first full professorship in this branch in Germany. In 1855, he produced his profound work on cellular pathology, and began teaching students that cells reproduce from other cells and that disease results from injury or irritation of cells.^{37,38}

"His view on inflammation," Long writes, "led directly into his Cellular Pathology . . . the simple but early recognition of the prin-

ciple to which all biological teaching had to come, cellular life . . . All fields of pathology were cleared by the new knowledge . . .”³⁹ In the early days, Long comments, Virchow had only his microscope, “a fairly refined instrument by that time, razors with which he could cut moderately thin sections by hand, and the simplest of stains.”^{40,41}

Although the great German school of pathology would become a beacon to Americans, alas, even Virchow’s simple tools and techniques were nonexistent in Texas. From its humid, ocean-lapped beaches to its dry and hostile western deserts, wars, skirmishes, and economic struggles had absorbed the Texans for most of the century. Life had been threatened further by epidemics of smallpox, cholera, and yellow fever. In more recent times there had been other epidemics: scarlet fever in 1849, measles in 1850, typhoid fever in 1852, dengue in 1852, and in 1860, diphtheria would strike.⁴²

As the state continued to struggle, so did medicine. Newspapers remained the primary source of medical information.⁴³ “The numerous doctors in the state were poorly trained and educated, and their practice was hardly brilliant,” Fehrenbach states. “Many frontier doctors served also as dentists; a medico who could set broken limbs while someone held the patient down could also pull teeth by the same method. One brilliant exception to the rule was Dr. Ferdinand Ludwig von Herff, who practiced distinguished medicine at San Antonio. Herff brought German medicine to Texas, used chloroform as early as 1854, and founded a medical dynasty that kept in touch with Vienna.”⁴⁴

Dr. Herff indeed was a remarkable physician and leader, practicing complicated surgeries, often under primitive conditions, and insisting always upon cleanliness. He knew something of pathology, and carried with him a fine ocular piece to examine water in the countryside for foreign matter—especially when he performed cataract procedures^{45,46} His first use of chloroform was during the successful removal of two large bladder stones from a Texas Ranger “witnessed by a crowd of onlookers which included noted Ranger Big Foot Wallace.” Dr. Herff also identified hookworm as a cause of disease and predicted the advent of antibiotics.

Another sign of progress appeared in 1853 when thirty-five Texas doctors formed the Texas Medical Association in Austin. In the group of “gentlemen” were Dr. Ashbel Smith and Dr. J. W. Throckmorton, who would be governor of the state at a painful time in Texas history. During its first year, the group chartered two dis-

strict societies, Bexar Medical Society, which comprised physicians in Bexar and Medina counties, and Travis Medical Society in Austin. The state association soon picked up more members, including two outstanding early physicians from San Antonio, Dr. Ferdinand Herff and Dr. George Cupples, whose presidential speech to the association was said to represent the “flowering of medicine in Texas.”⁴⁷ Both physicians, Nixon declares, were men of whom any country or century would have been proud—Cupples a “cultured, Chesterfieldian gentleman and idealist; Herff, the brusque, yet gentle, man of action.”⁴⁸ Despite their contributions, the state society lapsed after two years, after which there was scattered organizational activity, including the formation of the Houston Medical Association in 1857.⁴⁹

During this era physicians were still divided into dogmatic schools of thought based on theories of practice. “The dominant school, the allopaths,” Henry writes, “depended upon the administration of powerful dosages of drugs to combat the suppositious causes of sickness or to neutralize its effects; the homeopaths believed in small doses of medicine, operating on the theory that ‘like cures like.’ The nature of the curative agents largely relied upon by the medical profession led Dr. Oliver Wendell Holmes to observe, in an address before the Massachusetts Medical Society in May 1860, that ‘if the whole materia medica, as now used, could sink to the bottom of the sea, it would be all the better for mankind—and all the worse for the fishes.’ Dr. Holmes granted that there were exceptions to his sweeping condemnation, but his opinion as to the efficacy of much of the orthodox treatment of disease was warranted by the fact that methods of treatment were derived more from speculation and theory than from directed and controlled experimentation.”⁵⁰

“Even if there had been a more general recognition of the importance of experiment and scientific observation,” Henry adds, “there was, in America in the early 1860’s, little of the apparatus or equipment for observation of even simple symptoms. Even such familiar tools of the physician as the clinical thermometer and the stethoscope were all but unknown and little used . . .”

Perhaps the Texans weren’t so very far behind the rest of America. They were, however, skeptical of higher education, including that for medicine. Nevertheless, in 1856, the Methodist Episcopal church established Soule University at Chappell Hill, but, like

other institutions, the school struggled for financial stability. In 1858, the State of Texas also attempted to provide for higher education, passing legislation to establish a university that included instruction in surgery and medicine, but action was to be delayed for years to come. In 1860, however, with its six faculty members, Soule University was serious about adding more components of higher learning, including a medical department. Under the leadership of George W. Carter, there was renewed optimism, but by March 1861, the campus scene was bleak. A faculty member wrote, "The crises, secession, the prospect of war, and the current famine in our land of Texas have produced their effects . . . The scarcity of money and provisions and a general destruction of all commercial faith [have] shut up supplies to cash transactions."⁵¹

Whatever hopes the Texans had for a stable society and its accoutrements dwindled, and on April 12, 1861, Confederate guns fired on Fort Sumter, South Carolina. Everything fell apart at Chappell Hill, Texas. The president left for Virginia, supposedly marching off with his own regiment and taking most of the students with him. Enrollment declined further, faculty members left, and the buildings eventually became a dilapidated Confederate convalescent hospital."^{52,53}

Two weeks earlier, on April 1, the first blood of the war had been spilled on Texas soil as Colonel Ford quelled an uprising in the Zapata area by a Mexican national who had declared against the Confederacy and hanged a judge. As the war grew to full scale, hundreds of Texas doctors and lawyers, many of whom had been leaders in building the state and its institutions, left as soldiers—most with the Confederacy but a few with the Union. Colonels Ford and Ashbel Smith wore the grey of the South along with others, including two physician generals, Richard Gano and Jerome Robertson. Officers Wilburn King and William Rogers had degrees in both medicine and law. "These men lent a certain blaze of glory to the Southern legions under the Bonny Blue Flag," Fehrenbach states, "Their blood, and the loss of this high-minded elite put a somber, lasting pall over the future of the land." Interestingly, Texas physicians primarily joined the war as soldiers—not to practice their profession—yet disease plagued the Confederate armies—from diarrhea to measles, from malaria to typhoid fever to smallpox. Texas had sent fewer men to war than had other Confederate states—probably because there were fewer people altogether on the frontier. But the

war was to take “a hideous toll” of landowners and ordinary men, the state’s loss “in blood and bone” proportionally higher than that of any Northern state.^{54,55}

For the moment, any dreams of importing scientific advancement, including the precocious work of Virchow, were placed on indefinite hold in Texas—and in many other sections of the not-so-united states of America.

Even in the better-equipped North, the war would be half over before headquarters of the Army’s Medical Department would possess the basic working tool of the pathologist—an achromatic microscope.⁵⁶

For now, Texas physicians, educated and not-so-well educated, more as warriors than healers, focused again on the battlefield as their laboratory, the blood of kindred their stains.