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RESEARCH ARTICLE

The Maladies of an Emperor; Some Curious Notes on Eighteenth Century Medicine in the Americas

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Abstract:

Background: Of all the women and men that participated in Mexico's independence movement, no one has more historical documents and records written about himself than Agustín de Iturbide, who in 1821, in a dramatic turn of events, drafted a plan, the treaties, a flag, and a constitution; brought the key belligerents to the negotiating table; and opened the door for peace that would consummate Mexico as an independent nation.

Objectives: To identify moments in which health and disease affected the path for Mexico's Independence.

Methods: Following the events that led to Mexico's independence we reviewed primary sources to identify key moments in which disease affected history, and we describe the knowledge of these conditions in that particular period of time.

Results: On contemporary literature about Agustin de Iturbide we identified the following medical conditions that could have an impact on history: difficult labor, epidemics, dysentery, arsenic intoxication, and facial palsy. We also discuss details of a failed execution by firing squad and the possibility of Iturbide being killed by coup de grâce.

Conclusions: We identified a series of events in which disease and the practice of medicine of the 18th and 19th centuries could have impacted the history of the independence of Mexico.

Keywords: Agustín de Iturbide, Independence of Mexico, Difficult Labor, Dysentery, Arsenic Poisoning, Facial Paralysis, Firing Squad Execution

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Introduction

The history of Mexico arguably begins in 1521 with the fall of the great Aztec capital of Tenochtitlan to the Spanish. This point in time – a century before the Mayflower sailed into Plymouth Harbor – gave place to the establishment of the Viceroyalty of New Spain. For the ensuing 300 years, New Spain pursued a government based on a complex caste system until revolutionary forces started the Mexican War for Independence in 1810 which ended in 1821^{1,2}.

The events from 1810 to 1821 are full of great characters, their heroic acts, and inspiring moments. Historians provide detailed narrations that could be considered irrelevant. Yet further review of individual accounts of personal medical issues and of contemporary public health issues enables a study of physical ailments affecting key historical characters. This shows how disease and medicine directly influenced several decisive historical events.

Of all the women and men that participated in Mexico's independence movement, no one has more historical documents and records written about himself than Agustín de lturbide. In 1821 he drafted the treaties, a flag, and a constitution; brought the key belligerents to the negotiating table; and opened the door for peace that would consummate Mexico as an independent nation.

Iturbide is one of a small number of personages who have not only exercised sovereign power in the New World but who have also borne a monarchical title. As the chief magistrate of a domain that stretched from northern California to Panama, he is the only American-born monarch who ever exercised sway over a portion of the present United States (see figure 1). For almost a year he reigned as Agustín I, Emperor of Mexico³. Iturbide is also an example of Latin America's political martyrs, those that have been used as symbols of political identity and vehicles of cultural discourse⁴.

Figure – 1:



Figure 1: Picture of Agustin de Iturbide, oil over canvas painted in 1865 by Primitivo Miranda. Instituto Nacional de Antropología e Historia de México.

http://mediateca.inah.gob.mx/islandora 74/islandora/object/pintura:4108

Figure 2:



Figure 2: A map of the United States of Mexico in 1826, as organized and defined by the several acts of the Congress of that Republic, constructed from a great variety of printed and manuscript documents by H.S. Tanner. This map shows the northern extension of the Mexican Empire. The empire extended south to include today's Panama.

https://purl.stanford.edu/nd391yp3930

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As his life and the story of the Mexican War for Independence unfolds, we study how health, illness, and disease shaped Mexico's destiny by reviewing details of key moments in which medical conditions influenced history. We select a variety of situations including the

transition from midwifery to obstetrics trained surgeons; dysentery and epidemics; assassination attempt by poisoning; and contradictory reports of an execution by firing squad.



Iturbide's Birth

Agustín de Iturbide was born in the city of Valladolid in New Spain (now known as Morelia in the Mexican State of Michoacán), on September 27th, 1783. His father, Don Jose Joaquin de Iturbide, descended from a noble family in the Basque region of Spain.

Iturbide's birth was difficult. Mrs. Iturbide was in ponderous, difficult labor for four days and 'almost given for dead, and the baby for lost'⁵. At some point, she embraced intercessory prayer to Friar Diego Basalenque -an accomplished 16thcentury scholar of the Order of Saint Augustine and one of the first Priests in New Spain, he was venerated by the people⁶. So, upon the birth of a healthy baby boy, a thankful Mrs. Iturbide named her son Agustín. His birth and first moments of life captured the attention of the public who saw 'some of those signs of annunciation of predestination'⁵.

While details of the difficult labor and the birth are not known, much is known about the state of medicine, the practices of midwifery and obstetrics, and the role that the Catholic Church played in these regards in 18th century New Spain and Europe. The Church had specific expectations and orders for Priests to medically intervene when the fetus' soul was in jeopardy. Typically, this involved Cesarean section in dead mothers in order to baptize the fetus to save its soul⁷.

The care of difficult labor was dangerous and complex. In 1778, the Colombian physician Sebastián López Ruiz observed that the main problem in perinatal care was the lack of competent personnel in all medical matters

and in baptism affairs⁸.In New Spain, the practice of obstetrics during the 16th, 17th, and most of the 18th century was in the hands of empirics, holders, accoucheurs, midwives, and 'it seems that even surgeons would practice the "ignoble job of midwifery"⁹.

Midwives in the Mexican colonial era were usually 'honorable widows' or married women with the permission of their husbands. Most of them were poor, ignorant, and superstitious as women were excluded from all educational opportunities¹⁰. Then, around 1750, male surgeons and physicians challenged the midwife's reliance on women's experiences and traditions. According to surgeons, their training in anatomy and the mechanics of normal and abnormal labor, as well as their experience in applying forceps, were an advantage for difficult births. Furthermore, an economic incentive came to light and surgeons began to promote their own roles in regular births¹¹. Then, in 1768, with the creation of the Royal College of Surgery of New Spain, only surgeons were authorized to practice midwifery legally¹². By the late 18th century there were 1200 surgeons in the Viceroyalty¹³.

'Difficult labor' was defined as 'that in which nature finds some obstacles opposed to the prompt and fast expulsion of the creature, making it long and troublesome with some need for the participation of a professor to help to evacuate the contents of the uterus', 14 and it was attributed to several causes:

'Severe body movements, strong contusions or compressions on the belly; violent passions, whims, and griefs, fevers, longing, diarrhea, bloody discharges, narrowing of the vulva, creature that is traverse, weak or dead as well as weakness (of the mother) and fear of labor⁷. Also "when the head of the creature is large in relation to the capacity of the pelvis or when the woman suffers from a vice or disease in the vaginal conduct that narrows its caliber, or the uterus is oblique, or its neck is hard, callous or scirrhous…"¹⁴.

This diverse set of causes was met with an equally diverse set of responses used to ease delivery including remedies with a solid foundation and with uncertain origin including superstitions. Among superstitions without scientific foundation that were common in New Spain was the 'squared stone' from which was said: 'The Candar stone, squared stone or broken stone is made as a die and the color of steel, it is heavy... It is brought from Tartar confines by the Bonze (Chinese Buddhist Monks) who say it has lots of virtues, for that reason they perforate it and tie it around their neck¹⁵.

The stone was a remedy for headaches, twinges, and cramps; it could alleviate asthma, melancholy, and...'Tied around the left thigh it facilitates delivery when women are in terms of giving birth, because experience has shown that, applied during this state, it does what is desired; in case this practice is not enough, you should scrub the stone for half a quarter of an hour in an ounce of hot sesame oil, and you will give it [the oil] to the woman to drink, she shall give birth, she will throw the membranes and the baby with no risk or danger for the woman...' 15.

Another superstitious remedy to solve difficult labor was the use of ash wood: 'put over the womb that will deliver, or if it does not, horse dung thinned in wine and well strained, [the woman should] drink half a pint, and even if the fetus is dead, she will throw it out easily¹⁶. Faith-based remedies included the advocacy of Saints through the use of candles of Our Lady of Consolation, Our Lady of the Light, or Saint Raymond Nonnatus¹⁷.

Cesarean Sections on living women were almost out of the therapeutic armamentarium. In the 18th and first half of the 19th centuries opening the peritoneal cavity for an abdominal delivery -without the benefits of anesthesia or a minimal understanding of the principles of antisepsis- was indeed a death sentence for the mother. Between 1750 and 1800 only 24 such operations were performed in Paris with a 100% maternal mortality, moving the French surgeon, Jean Francois Sacombe to create an anti-cesarean movement to try to prevent the use of this alternative in living women¹⁸. Therefore, Jose Ventura Pastor in 1805 wrote:

'This is one of the pitfalls where science and the experience of the most expert professors stumble because although they have the best talents and the most beautiful lights in what pertains to the practice of this part of obstetric surgery, in these cases, they are commonly obliged to give up and abandon everything to the disposition of nature' 14.

The Iturbide family's social standing probably meant that Mrs. Iturbide had access to and received care from an obstetrics trained surgeon and a Catholic priest. Fortunately, Mrs. Iturbide and her son Agustín survived 'difficult labor', thus marking the beginning of a remarkable life.

From Child to Army Officer

The earliest record of Agustin de Iturbide's childhood health is of an accident when he was 11 months old:

'He miraculously saved his own life ... as an unwise servant placed a light close to the pavilion that covered the crib in which the child slept ... the pavilion caught a fire that extended to the cords that held the crib, happily, the child grabbed the only one that remained unscathed and saved the life' 19.

Young Iturbide also survived epidemics that took place in New Spain. This includes matlazáhuatl (a kind of typhus or plague) that occurred during the second half of the 18th century and had a negative impact on the population, particularly among indigenous people who were more prone to communicable diseases due to malnutrition, overcrowding, and inadequate sanitation²⁰. There is also evidence of a smallpox epidemic in 1798. The town of Mexicaltzingo, near Guadalajara, counted 304 deaths, 147 of which were younger than 10 years old²¹. By then the procedure of variolation was known in the country, and it is probable that due to the socioeconomic status of his family, young Agustín received the benefit of this practice²².

At 14 Iturbide was enrolled in the Provincial Regiment of Valladolid as an honorary Second Lieutenant under the orders of Count Rul. In 1805, at the age of 22, Agustín de Iturbide married Ana María Huarte, heir of one of the

wealthiest families of Valladolid. He received an endowment of several properties and 32,000 pesos, part of which he spent to acquire the Hacienda of San Jose de Apeo near the town of Maravatio.

On September 16th, 1810, the Catholic priest of the village of Dolores, Don Miguel Hidalgo y Costilla gave an inspirational speech and rallied the citizens to arms thus launching the War for Mexican Independence. These revolutionary forces, also known as insurgents, then proceeded to march toward the city of Valladolid. One of Iturbide's first military activities was to organize the notable citizens to flee Valladolid to prevent them from becoming victims of Hidalgo's insurgent mobs.

On October 12th, 1810, in command of 35 soldiers, Iturbide put 500 insurgents on the run near Maravatio. He was promoted to serve under the Loyalist General Torcuato Trujillo. In the battle of Monte de Las Cruces, on October 30th, the insurgents realized an astonishing triumph over the loyalists. Yet Iturbide showed his mettle by plucking the third-ranking loyalist military officer, Captain Mendivil, from the midst of battle, throwing him on his 'horse's haunches' and rescuing him from being killed or captured. The Viceroy Félix María Calleja del Rey awarded Iturbide by promoting him to Captain and placing him under the command of Colonel Diego Garcia-Conde. The Colonel came to depend on 'the indefatigable Iturbide' and would tell the Viceroy that 'nothing can fully reward this brave officer whose victories are innumerable²³. Thus, began Iturbide's remarkably successful career in counterinsurgency operations



that would culminate years later with victories in all his military actions²⁴.

Mortal Dysentery and Epidemics

In 1813 Viceroy Calleja promoted 30-year-old Iturbide to Colonel in charge of the Celaya Regiment, Commander of the Armies of the North, and Commander of the Intendancies of Guanajuato and Valladolid. With this appointment the Viceroy made a request: He asked to be informed monthly of Iturbide's activities through a military journal. Iturbide complied, and medical details of interest appear as journal entries and as separate correspondences with the Viceroy. For example, on August 15th, 1813, Iturbide submitted a personal journal to the Viceroy that he had written between the end of January 1812 and July 1813. One entry reads: 'My health had been dismal in the hot lands.... In the year 1811 in Iguala, I saw myself attacked by mortal dysentery, that I needed to be removed on Indian's shoulders, and in the Urecho Valley of Valladolid, I was attacked by an acute fever for which I received the last rites' 25.

According to the diary, Iturbide suffered two bouts of illness, one in Iguala that rendered him immobile and thus incapable of taking to the battlefield of Taxco, and another that almost killed him near Urecho a few weeks later.

On July 12th, 1813 he wrote in a letter to Viceroy Calleja:

'We have started to notice with certain zeal, a fever in our troops, though to this moment it does not seem malignant, I would celebrate if your excellency could provide us with a good practitioner of medicine and surgery so he can serve in the headquarters that I am planning to establish...' 25.

It seems this petition was not granted for in another letter to the Viceroy written on describes October 13th Iturbide the 'miserable state of the Celaya battalion' by reporting that more than two-thirds 'are not relieved from duty, having among them several who are weakened because they are convalescent'. And on November 17th, 1813, the diary reads: 'I count with 400 able men including the 90 horses of the patriotic troops because the epidemic and the organization of the village of Salamanca have forced me to subdivide the majority of the reglementary troop' 25.

Medicine in the late 18th century in Mexico and Spain was behind in progress compared to that of Europe overall. There was no knowledge of microbiology and poor differentiation among diseases with similar symptoms. A belief in climatic determinism's influence on the health of people was decisive. Therefore, the therapeutic armamentarium consisted basically of diets, exercises, resting, baths and massages, bloodletting and suction cups, scarifications, purgatives, and emetics. Also included were many botanical and mineral remedies. Of these, only a few -opium for pain and quinine for malaria- had an empiric foundation²⁶.

The history of epidemics in Mexico provides clues referring to the year 1813 as 'the mysterious fevers of the year 13' with descriptions of fevers as having been caused

by typhus, malaria, typhoid, and dysentery. An epidemic was declared by Viceroy Calleja in April of 1813. It caused the death of 10% of the population in Mexico City²⁷. Dr. Luis Montaña, professor of medicine who collaborated with the royal authorities, was commissioned by the City Council to investigate the causes and develop home instructions for the people because there were not enough resources to care for all the ill people at the hospitals²⁸.

The description of Iturbide's clinical course is not documented. However, dysentery was considered among the most serious diseases of the 18th Century. The first recorded case in Mexico dates to 1611 when Friar Garcia-Guerra, Archbishop and Viceroy of New Spain, died soon after arriving in the city with a history of pain in the hepatic area and fever²⁹. During that same period, the Aztec physician, Martin de la Cruz, described the symptoms of dysentery³⁰, and Mateo Aleman hinted at its relationship with liver abscesses³¹. Notable is the medical conference on 'obstructive diseases of the liver' convened in Mexico City as a celebration of the crowning of Charles IV as King of Spain in 1788: Dr. Pio Eguia described the epidemic of 'malignant biliary fevers' that could cause death, while Dr. Manuel Moreno concurred on the need of timely surgical interventions³².

It is not far-fetched to infer that Iturbide had a case of amoebic dysentery complicated with a hepatic abscess that was drained by a skilled surgeon. Surgery remained the main form of treatment for these highly mortal liver abscesses until mid-20th Century³³.

While dysentery almost killed Iturbide, in Iguala near Taxco, it appears to have saved him at the same time. Had this disease struck at a different time, or not at all, Iturbide would have been engaged in active battle and highly likely been killed with his army as it was annihilated in the battle of Taxco by General Galeana under the orders of the great General Jose Maria Morelos on Christmas day, 1811.

Two years later, on December 23rd and 24th, 1813 Morelos and Iturbide would meet on the battlefield. Morelos and his army of 6,000 men advanced towards Valladolid. They were defeated at Lomas de Santa Maria by 190 horsemen and 170 infantrymen under the command of Iturbide. Yet while the military reputation of Iturbide continued to grow throughout the territory, he was criticized for his cruelty and rumors of corruption. Therefore, he was removed from his charge as a commander of the army of the central regions of New Spain and moved temporarily to his hacienda before going to Mexico City to confront the accusations.

A man of contrasts, Agustín de Iturbide was also given to devotion and acts of piety. He would pray the Holy Rosary every day, even during harsh military campaigns³⁴. Perhaps because of these devotions or to 'impress the royalist worshipers'³⁵, he enrolled in a series of retreats and spiritual exercises at the temple of 'La Profesa' in Mexico City to pursue a 'rigid life of penitence and mortification to atone the excesses committed'.

Commander of the Largest Army

1820 was an 'unprecedented' year for the inhabitants of New Spain. King Ferdinand VII

Medical Research Archives

from Spain would replace the monarchy with the liberal Spanish Constitution of 1812. This "Constitution of Cadiz" was to be applied to all the Spanish territories including New Spain and gave Spanish Citizenship to natives of these territories. This was popular with many Creoles, particularly those in high ranks of the loyalist army. Many former insurgents were also supportive because they had accepted absolution and continued proselytizing in favor of Independence. However, the Constitution of Cadiz was unpopular with those in power.

In accordance with the new constitution, the former Viceroy Ruiz de Apodaca was now the "Superior Political Chief" of New Spain. He was not in favor of the Constitution of Cadiz and formed an alliance with the higher clergy to defend the property rights of the Church and to proclaim a return to the previous regime as the only viable way to 'save the country from ruin and the religion from being contaminated'. He organized a group of 'notables' to plan their separation from Spain to prevent the application of the liberal laws in the territory while offering the throne of the new empire to Ferdinand VII or one of his heirs. This group would meet at the temple of Profesa where Iturbide pursued La atonement. Meanwhile, the current General to the Southern Armies Jose Gabriel Armijo had reached retirement age. Apodaca was convinced that Iturbide was the best man to take over, and on November 9th, 1820 Iturbide was assigned as General Commander of the South and the Acapulco region. With this assignment, Iturbide oversaw the largest army ever seen in New Spain.

In a single moment, three key socio-political constituencies were brought under the leadership of one man: The high clergy and the Spaniards that wanted Independence to avoid the application of the Constitution of Cadiz; the army; and the Creoles that wanted a moderate monarchy as stated in the Constitution of Cadiz.

Productive Indisposition: The Consummation of Independence

As Iturbide assumed his new command, the last strong warlord of the insurgents in the south, Vicente Guerrero, wrote a letter to Carlos Moya, the loyalist general under Iturbide's command. Guerrero urged Moya to unite their forces. However, Moya rejected the offer because Guerrero did not have a or means to consummate Independence. Guerrero replied by attacking Iturbide's army but was easily defeated. On January 10, 1821, Iturbide sent a letter to Guerrero inviting him to capitulate in exchange for his pardon. Considering the offer undignified, Guerrero refused. Iturbide offered a counterproposal: a meeting in which they would "do more in half of an hour of conference than in many letters". Guerrero accepted Iturbide's counterproposal to meet. Meanwhile, Apodaca ordered Iturbide to attack Guerrero. Iturbide wrote to Apodaca on January 24th, 1821:

'Your Excellency: Finding myself in bed with slight indisposition when I replied to you before, I focused only on the most interesting points then. However, to respond to your request of the 13th and repeated on the 15th for me to attack Guerrero from the rear guard,

I need to inform your excellency that I flatter myself after not obeying your superior determination as I dispatched Lieutenant Colonel Don Francisco Antonio Berdejo through Tlacotepec (which was the same way Guerrero took) ... I have not retrieved despite the weak state of my health' 25.

While indisposed and unable to attack, Iturbide apparently laid in bed and used this time to prepare for his upcoming Guerrero meeting. He drafted a plan for Mexican independence, a peace treaty, and a Mexican Constitution. Guerrero and Iturbide's conference took place on February 10th, 1821 in the village of Acatempan. Iturbide presented a plan for Mexican Independence that included some of the ideas of the which Guerrero, insurgents, knowledgeable of the lack of force of his movement, adhered immediately. Thus, began a series of negotiations that led to the Independence of Mexico. Then, on February 24th of 1821 in the town of Iguala, the Plan of Iguala was signed by the belligerents. The Army of the Three Guarantees was formed based upon the three major ideals of Iturbide: Independence, Catholic religion, and Union. The green, white, and red flag was displayed for the first time. The three groups constituting La Profesa and the insurgents led by Guerrero came together and created Mexico.

On August 24, 1821, Iturbide, and Don Juan O'Donoju y O'Ryan, who had been appointed as Superior Political Chief of New Spain on July 21st, signed the Treaty of Cordoba ratifying the proposals of the Plan of Iguala in which Spain recognized Mexico's independence.

On September 27th, 1821, on Iturbide's 38th birthday, in Mexico City, 60,000 people witnessed the parade of 16,000 troops of the Army of the Three Guarantees, the largest army ever seen in the city, with Iturbide elegantly wearing a green frac and riding a black horse at the front. He was sincerely cheered and applauded by all realms of society.

The new Mexican Nation began governing by imitating the then-current Spanish political system. A representative system was decided upon so that the ideas and opinions of all Mexicans could be discussed considered³⁶. Thus, Iturbide, as commander of the army, formed and led the Sovereign Provisional Government Board, an assembly of notables due to academic achievement, wealth, or influence as the basis for a representative and independent government³⁷. This board acted as the first congress for the new nation. They were divided and unable to come to consensus on many issues until a majority emerged that defunded the army, declared Iturbide Generalissimo of the Army and approved a law in which military commanders could not hold government positions.

Coronation and Fall

On the night of May 18th, 1822, the Mexican people, moved by Pio Marcha, Lieutenant from the Celaya Battalion, who was in command of the garrison of the First Cavalry Regiment, together with almost the entire garrison with the main generals at the front, acclaimed Generalissimo Iturbide as Emperor. With approval from congress, he was crowned in the Metropolitan Cathedral on July 21st, 1822³⁸.

By accepting the crown, Iturbide allowed a hostile Congress to appoint him Emperor. In so doing, he accepted the Constitution that limited his powers as Emperor and gave Congress the power to decree actions and orders for the Emperor to Disagreements and hostilities continued, including how to fund the army and raise taxes. In response, Iturbide tended to absolutism. He dissolved Congress and imprisoned the representatives of the people. Rather than unify around the monarch, the people including his most ardent supporters defected and Iturbide lost the moral power as Emperor³⁶.

As tension mounted rapidly, Iturbide saw civil war and consequent anarchy as the price his country would have to pay to support his empire. Iturbide wrote the following to Simon Bolivar:

'How far I am from considering a privilege what imposes on my shoulders, it is a weight that overwhelms me. I lack the strength to hold the scepter I repulsed it but gave way to avoid evil to my country, which was close to succumbing again, if not to the old slavery, then to the evils of anarchy' ³⁹.

Under this pressure, he re-assembled the congress he had dissolved. On March 22nd, 1823, he read a manifesto in which he declared his desire to abdicate. At the same time, he informed the legislative body that he would gladly withdraw, to live with his family in another country. This was agreed to, and it was determined that he should fix his residence at Leghorn, in the Grand- Duchy of Tuscany⁴⁰.

Aboard the Rawlins

Accordingly, Iturbide was escorted to a point on the shore, near Veracruz, where he and 28 other Mexicans including his family and their accompaniment embarked to Leghorn. On May 11th, 1823, the party went forthwith aboard the frigate Rawlins, a fine English merchant vessel of 350 tons burthen, 12 guns, and a crew of twenty men^{41,42}, which was chartered by the government for the sum of \$15,550 pesos. The Rawlins was commanded by Captain Jacob Quelch. While prostrated with sickness, Iturbide signed the dispatch drawn by his chaplain, without reading it. When it appeared in print, Iturbide realized that the orders were to take the deposed emperor to Tuscany with no stops⁴³. The trip was scheduled to take approximately 90 days. Iturbide reviewed the list of provisions and only requested to add a small bottle of English bitters in his quarters as he liked to have a small drink before his meals⁴⁴. The bitters were prepared by Padre Marchena, a Dominican that 'was sent to follow Iturbide with the intention to end his life'19.

With the preparations made, at 11:05 a.m. on May 12, 1823, the Rawlins sailed from the port of La Antigua in Veracruz, and 'as soon as he (Iturbide) arrived on board, he was totally dizzy and vomiting' 45. This motion sickness lasted for three or four days⁴⁴. On the fifth day of their journey when he was recovering from motion sickness, his 7-year-old son, Angel, and the emperor himself, were poisoned when tasting the bitters. The effects of the poison 'which deformed their faces' 48 were discovered before full draughts were taken. The antidotes were administered such that

the effects did not continue to increase but remained until their arrival at Leghorn.

The odorless and tasteless properties of inorganic arsenic compounds such as arsenic trioxide (white arsenic) make them an ideal poison that could have been mixed in the bitters. Arsenic was used throughout history as a potent poison to assassinate kings and emperors and facilitate rich inheritances⁴⁶. Exposure to arsenic enough to cause severe acute systemic symptoms usually occurs through ingestion of contaminated food or drink. Symptoms of arsenic poisoning may appear within eight minutes if the poison is in solution. They range from excruciating abdominal pain and forceful vomiting to cramps in the legs, restlessness, and spasms, a small proportion of the cases are classified as 'nervous' or 'cerebral'47; facial paralysis has also been linked to arsenic intoxication⁴⁸.

In the 19th century, treatment of arsenic poisoning included antidotes such as milk, egg whites, water, and opium. In addition, soft sugar, theriac, water, and milk were administered followed by tepid milk and flour boiled into a thick mucilage. Castor oil, compound tincture of cardamom, and peppermint water were also used. By 1842 Chambers proposed using three drachmas (one drachma is equal to 4.3 grams) of oxide of Iron⁴⁹.

There is no record of the facial paralysis being treated aboard the Rawlins. Apparently, treatment had to wait for Europe. As for arsenic poisoning, fortunately, one or more individuals aboard knew the diagnosis and the treatment. They acted quickly and were

successful. It is doubtful they knew the connection between arsenic poisoning and facial paralysis.

When they reached Gibraltar, the passengers' health was so deplorable that Iturbide asked Captain Quelch to go ashore, find a doctor to treat the sick, and change the rotten drinking water. However, the captain's orders were categorical, he was not to stop until he reached his destination. Iturbide was powerless to contradict the heartless expression; it was his fault for not revising the original dispatch⁴⁴.

Exile in Europe

The Rawlins arrived at Leghorn on August 2nd, after 83 days at sea. The travelers were quarantined for a month. On September 2, the exiled family was domiciled in Villa Guevara, a country house owned by Princess Paulina Bonaparte. Here Iturbide received a letter that guaranteed his permanence at Tuscany for one month. However, Iturbide's movements were being observed. Therefore, they decided to move to England.

On December 10th, after crossing through Italy, Switzerland, Germany, and Netherlands, they embarked from the Port of Ostend on a steamer bound for London and arrived on January 1, 1824. On February 13th Iturbide communicated his change of residence to the Mexican Congress with the desire to offer his services to protect Mexico's independence. In March, the Iturbide family moved to the city of Bath, by the Avon River where according to reports, 'he spent most of his time at home, he would go to the theater and spend excessively on foodstuffs' 19.

Meanwhile, in Mexico, Congress withheld the support it paid to Iturbide and declared Iturbide a traitor and an outlaw, adding that whenever under any title he appeared at any point of the territory he would be declared a public enemy of the State⁵⁰.

During his permanence in England, Agustín de Iturbide received correspondence from Mexicans who sought his comeback to defend the homeland from an invasion from Spain supported by other monarchies that formed the Holy Alliance⁵¹. Although the Holy Alliance never seriously planned intervention in Hispanic America⁵², Iturbide was nonetheless convinced of this and prepared to return. Iturbide set sail with his pregnant wife and their two youngest children on May 11, 1824, from the port of Southampton on the English ship Spring under the command of Captain Quelch. Also, onboard were Iturbide's nephew José Malo; the priests José López and José Treviño; the Italian doctor Macario Morandini as a translator; the English printer John Armstrong; Pio Marcha, and Charles Beneski, a Polish colonel who had accompanied Iturbide in his Mexican campaigns.

Regarding Iturbide's decision, the British minister of Foreign Affairs thought his return was a necessary, patriotic and selfless decision⁵³. Meanwhile, the Mexican press wrote that the Hero of Iguala intended to restore a monarchic regime¹⁹.

Return and Death

On July 1st, the Spring arrived at the port in Soto La Marina, where Beneski disembarked and contacted Felipe De la Garza, General Commander of the Internal Provinces of the East, who shared details about the situation in the nation and offered to support Iturbide's return to the country. On July 17, Iturbide met with De la Garza. After their interview, Iturbide was arrested and escorted to a nearby town called Padilla, where the State Legislature had been in session. Two days later, in accordance with the provisions of the federal law of April 28th that prohibited his return to the country and declared him a traitor and outlaw, the State Legislators sentenced Iturbide to death.

On July 19th at 3:00 pm, he wrote a letter to the Sovereign Congress of Mexico, the de facto Federal Government, asking for due process, for an explanation of the crime he had committed, and why he deserved such punishment. Almost immediately, he was informed by the State Legislature that he would be executed by firing squad at 6:00 pm. Iturbide requested the execution be postponed a day so that he could attend mass and receive Holy Communion. The request was denied.

At 5:30 he made his confession and warned the guard that was holding him that his time had come. 'Let's see, boys, I will give the world the last sight' 54, he said to the soldiers as he left his prison cell, looking everywhere as he walked toward his execution. There were no signs of regret in his demeanor, walk, or voice. He proceeded to the gallows with integrity.

After a brief conversation with the accompanying clergyman, Iturbide gave him a letter for his wife. He took off his watch and rosary for his eldest son, who had remained in

London. He requested that three and a half ounces in small gold coins he had in his pocket be distributed among the soldiers who were to execute him. He requested a glass of water; this was granted. Then, turning to the authorities, he requested and was granted permission to address the troops assembled before him:

'Mexicans! In the very act of my death, I commend to you the love of your country and the due observance of our holy religion; it is religion that will lead you to glory. I die for having flown to your assistance and die happily of expiring among you; I leave this world with honor and not as a traitor—this foul stigma should not attach itself to the fair fame of my descendants. No, it should never be said that I am a traitor! Preserve strict subordination and be obedient to your commanders. By acting in conformity with their mandates you will obey those of your creator. I do not address you from any motives of vanity, for I am far from harboring them' 54.

He prayed the Creed, made an act of contrition. He kissed the Crucifix presented to him and said, 'From the bottom of my heart I forgive all my enemies – really from my heart ⁶⁴. The officer in charge approached Iturbide to blindfold his eyes. Iturbide declined saying it was unnecessary. The officer replied that this form must be observed. The former emperor drew his own handkerchief and blindfolded himself. He made some opposition to having his hands tied and acquiesced when the picketer mentioned that this, too, must be observed. Then Iturbide knelt.

Four soldiers took aim and discharged their muskets⁵⁴. Iturbide was 40 years old.

It is widely written and believed that Iturbide died of his wounds. Yet a detailed search yields only two reports of specificity, and they are contradictory. According to Malo⁴⁴, three lead balls struck Iturbide: A chest shot between the third and fourth left ribs, a face shot to the right side of the nose, and a shot deemed fatal to the left side of the forehead. Another witness, Beneski⁵⁴, affirmed that four balls impacted Iturbide's body: "two balls in his forehead and two on his chest, and he fell dead".

There are no records to help identify which bullet was (or bullets were) fatal. However, it is known that smoothbore muskets are inaccurate given that their absence of rifling unpredictable makes for trajectories. Furthermore, lead bullets are less lethal than expected because they deform upon impact and do not penetrate as deeply as bullets from rifles do. Thus, while a hit can cause significant damage, it is less likely to penetrate deep enough to damage vital organs and kill instantly. In the case of Iturbide, there are too many unknown variables to discern what bullet was fatal.

This opens the possibility that Iturbide received an additional fourth shot coup de grâce (mercy blow) to the body, a close-range pistol shot typically administered by the commanding officer to the head or the heart, to end the victim's suffering when the firing squad salvo fails to kill instantly. A coup de grâce results from the failure of a select group of soldiers to shoot and kill the victim

instantly, meaning that bullets missed or were not fatal. The resulting mercy blow is an unwanted, embarrassing outcome, and no one has much if anything to gain from reporting such a detail. This would account for Malo's missing fourth bullet, with Malo purposely avoiding reporting the mercy blow.

This means there were five total bullets fired, with one of the four firing squad bullets missing Iturbide, perhaps on purpose or due to inaccurate musket ballistics, and the coupde-grâce bullet being the fatal and fifth shot. The fact that four soldiers constituted Iturbide's firing squad is noteworthy as this suggests a poorly designed firing squad procedure. Eight firing squad members is a more realistic number to ensure success, especially given the inaccuracies of the smoothbore musket. It includes the concept of several muskets being loaded at random with a blank to ensure the anonymity of who fired the fatal round(s). These are several considerations of a well-designed execution procedure⁵⁵. Finally, consider that a coup de grâce could have been administered by an Iturbide sympathizer, for example, an army officer who served Iturbide and who would be motivated to relieve Iturbide of suffering.

Dressed in the Franciscan habit, Iturbide's body was laid to rest and veiled by the light of four candles in a chapel. General De la Garza covered the expenses of the funeral that took place the next morning. Father José Miguel de la Garza-García, a member of congress who voted in favor of the execution, officiated a mass that was attended by members of congress. After Iturbide's body was walked

through the town square, his remains were buried in Padilla in the old church.

Epilogue

1833, first November during the administration of President Antonio López de Santa Anna, Congress recognized Iturbide as a hero of independence and proposed that his remains be deposited in an urn in the country's capital. In 1838 under the presidency of Anastasio Bustamante, Iturbide's remains were laid to rest in the Chapel of Saint Felipe de Jesús in the Metropolitan Cathedral. The Spanish government officially accepted the independence of Mexico on Dec 28, 1836, with the signing of the treaty of Santa Maria Calatrava. From 1821 to 1921 Mexico had 82 different presidencies. In October 1921 Congress voted to remove Iturbide's name from the list of heroes of Independence, considering him the first contra insurgent⁵⁶.

Conclusion

Iturbide survived three life-threatening major conditions ('difficult epidemics, and amoebic dysentery with a hepatic abscess) with aid of the best available medical practices. Medical advances of the day stacked the odds of surviving lifethreatening medical conditions in Iturbide's favor. Had Iturbide succumbed, the history of Mexico's Independence would have been without Iturbide's unique leadership and actions, and Mexico's path to independence would have been delayed or perhaps lost forever. Medicine affected history in other ways. For example, in 1811 Iturbide missed the battle of Taxco due to illness. Arguably he

avoided perishing with his army as it was annihilated.

'The indefatigable Iturbide' is Colonel Garcia-Conde's description of the 28-year-old Iturbide in 1810. It seems unfitting that after battles, disease, surviving assassination attempt, Iturbide's cause of death is unclear. Two reliable, loyal Iturbide aides provide different detailed accounts of his reported fatal wounds by firing squad. Yet perhaps he survived the firing squad, as he had all previous threats to his life, and instead died from a coup de grâce, more on his own terms and at the hands of a faithful follower, and in a manner more fitting for a man of so many accomplishments.

Iturbide's life is a unique snapshot of life in New Spain in the early 1800's including the state of medicine, politics roiled by revolution at home and wars abroad, and ongoing health developments and challenges. His own trajectory through life, together with the role of chance in determining historical outcomes including key battles and political turning points in Mexican and international politics, illustrate how individual actions can shape the course of nations and yet how unpredictable the outcomes can be.



The Maladies of an Emperor; Some Curious Notes on Eighteenth Century Medicine in the Americas

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