

# LAW AND SURGERY: A LONG HISTORY



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*"Can we allow a surgeon to reconstruct a criminal's nose, which has been cut off as a punishment?" – Paolo Zacchias 1630*

If lawsuits against doctors for malpractice or lack of informed consent are nowadays quite frequent, they have in fact a long history. Among the most ancient law texts, from India, Mesopotamia, Persia, Greece and Rome, written by lawmakers, philosophers, theologians or physicians, one can find prescriptions or rules to be observed for allowing the practice of surgery, and the punishments incurred when the rules are infringed or violated. Interestingly, these rules were rarely the same for surgery that was carried out on free individuals, upper cast people or slaves.

## MESOPOTAMIA

For example, in the Acadian civilization in Mesopotamia, the most ancient

Sumerian cuneiform writing on surgical interventions is a legal text: the Hammurabi Code (c. 1800 B.C.), engraved on a black marble stele and preserved in the Louvre (Figure 1). The Code very precisely prescribes the duties of the operating practitioner, without, however, conferring on him a particular name or title. In contrast, the scalpel or the lancet used is given a specific name: the "naglabu" represented by a cuneiform ideogram reminiscent of a barber's razor (Figure 2).

One can read: "If a physician performed a major operation on a free man with a bronze lancet and has saved his life, or if he removed a tumor in the eye socket and saved the eye of the

Figure 1 - Hammurabi's table of laws.

patient, he shall receive ten shekels of silver; if it was a seignior's slave, his owner shall pay two shekels of silver to the physician. If a physician performed a major operation on a free man with a bronze lancet and has caused his death, or if he removed a tumor in the eye socket and has destroyed the seignior's eye, they shall cut off his hand. If the same complications happened on a slave, the physician shall pay to his owner half the slave's price in silver." Unfortunately for the surgeon, hand transplantation was not yet available!

## PERSIA

In ancient Persia, one can read in the Vendidad, one of the surviving texts of the Zend-Avesta, the religious principles of Zarathustra, that a surgeon was not allowed to operate a member of the Mazda sect (higher class) before he had performed successfully the same operation on three occasions on members of the Divyasnan sect, considered as infidels. If he failed, he was banned as a physician for eternity. However, incantations were considered superior to surgery for treating diseases.<sup>1</sup>

<sup>1</sup>Of all the healers O Spitama Zarathustra, namely those who heal with the knife, with herbs, and with sacred incantations, the last one is the most potent, as he heals from the very source of diseases.

## INDIA

In India, Sushruta, known to plastic surgeons for his method of nasal reconstruction, also made recommendations about who and how surgery should be practiced. "Defective Surgical Operations: The eight forms of operations may be attended with dangers of four different kinds such as those arising from an insufficient or over performance, or from the slanting or oblique deviation (of the knife or the instrument), or from an act of self-injury on the part of the physician. A physician (surgeon) making a wrong operation on the body of his patient either through mistake or through the want of necessary skill or knowledge, or out of greed, fear, nervousness or haste, or in consequence of being spurned or abused, should be condemned as the direct cause of many new and unforeseen maladies. A patient, with any instinct of self-preservation, would do well to keep aloof from such a physician, or from one who makes a wrong or injudicious application of the cautery, and should shun his presence just as he would shun a conflagration or a cup of fatal poison."

Sushruta also encouraged a good relationship between the patient and his physician. "The patient, who may mistrust his own parents and relations should repose an implicit faith in his physician, and put his own life into his hands with the least apprehension of danger; hence, a physician should protect his patient as his own begotten child. A surgical case may yield to a single incision, or require two, three, four or more than that number to effect a cure. By doing good to humanity with his professional skill, a physician achieves glory, and acquired plaudits of the good and the wise in this life, and shall live in Paradise in the next."

## GREECE AND ROME

In ancient Greece and Rome, there existed no legal authorization to practice medicine or surgery and patients were not protected against charlatans who were very numerous in Rome particularly. However, in his dialogues on laws, Plato makes a distinction between real doctors and others who are doctors' assistants. The latter might be free-born or slaves who acquired their art by experience, under the direction of their masters and not from the study of nature, whereas the free-born doctors learned their art and then taught it to their children and apprentices. Since patients may be either slaves or free men, doctor-slaves who did not give the slave any information about his illness nor accept any discussion about it treated the slaves. The free-born doctor, however, treated mainly free men. He asked for information from the patient himself and from his friends about the commencement and the course of the illness. And after having gathered all the necessary data, he should inform the patient, so far as possible, about the nature of his illness and should not give him any prescription until he has gained the patient's consent, and only then should he attempt to make the patient well, soothing him with advice and preparing him persuasively.

One of the fundamental principles of Plato's philosophy is that the "knowledge of good" is inherent in every human being. According to Plato, the patient knows what is "good" for him, and thus the role of the physician is to help this hidden knowledge emerge from the patient's soul by using the proper arguments. It is worth noting that Plato requires consent from the free men in

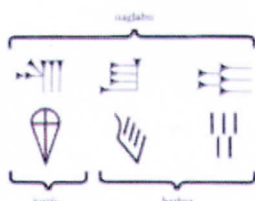


Figure 2 - Naglabu



contrast to slaves. In this way, he shows the relation of consent to autonomy of the person as the expression of his right to self-determination and free will.

The risk of being punished, in case an operation did not prove to be successful or satisfactory, was very high when a surgeon had to operate an important personage and sometimes doctors were reluctant to be involved in a patient's treatment which may end up with a death penalty. For example, Alexander the Great was seriously wounded during the siege of a town in India in 326 BC. Critobulus, a physician of distinguished skill, was terrified at the prospect of failure and tried to avoid surgical intervention. Alexander understood his hesitation and encouraged him to proceed with the operation, assuring his immunity by calling the wound *a priori* "incurable."

"For what event or moment are you waiting, and why do you not free me as soon as possible from this pain and let me at least die? Do you perhaps fear that you may be blamed because I have received an incurable wound?" Critobulus' pride and self-esteem were touched and he proceeded to the operation with success.

In the Roman Empire, it was only after the second century that medical practice was restricted to the *valde docti* or *archiatri*, who had acquired some knowledge and competence. However, the most renowned doctors were reluctant to operate on an illustrious patient knowing what could happen to them in case of failure, whereas operating on slaves or gladiators had no risk.

## MIDDLE AGES

In 578AD in the Byzantine Empire, the Emperor Justin II was suffering very severely from bladder stones and was imploring his surgeons to either operating or kill him. The surgeons feared a severe punishment if they failed. They finally accepted on condition that the operating-knife was given to them by the own hand of the Emperor, meaning that he was fully aware of the dangers of the operation. This type of securing an "informed consent" was apparently common during the Middle Ages. Justin II did not survive, although we do not know if it was due to the surgery.

The first official regulation dealing with the practice of medicine and surgery was established at the University of Salerno by the Norman King of Sicily Roger II, in 1140. "Who, from now on, wishes to practice medicine, has to present himself before our officials and examiners in order to pass their judgment. Should he be bold enough to disregard this, he will be punished by imprisonment and confiscation of his entire property. In this way, we are taking care that our subjects are not endangered by the inexperience of the physicians. Nobody dare practice medicine unless he has been found fit by the convention of the Salernitan masters." To be the Pope's surgeon was a dangerous task during this period. For example, Pope John XXII (1316-1334) condemned to death two of his physicians, accusing them of having attempted to kill him using poisons or witchcraft.

## THE LEGACY OF NASAL RECONSTRUCTION

The Byzantine Emperor Justinian II (668-711AD), called the *Rhinotmetos* (ὁ Ρινότμητος, "the slit-nosed"), was an ambitious and passionate ruler who was keen to restore the Roman Empire to its former glories, but he responded poorly to any opposition to his will. Consequently, he generated enormous opposition to his reign, resulting in his deposition in 695 in a popular uprising. His nose was cut off to prevent him seeking the throne again; such mutilation was apparently common in Byzantine culture (Figure 3). Justinian returned to the throne in 705 with the help of a Bulgarian and Slav army. His nose had



Figure 3 - Justinian's nose amputation

been replaced by a gold epithesis<sup>2</sup>. His second reign was even more despotic than the first, and it too led to his eventual overthrow in 711, abandoned by his army who turned on him before decapitating him.



Figure 4 - Paolo Zacchias

Paolo Zacchias (1584-1659) was an Italian physician, teacher of medical science, jurist, philosopher and poet (Figure 4). He is said to have been the personal physician to two Popes and legal adviser to the highest Papal court of appeals and is often considered as the father of legal medicine. In his most well-known book, *Quaestiones medico-legales*, first published in 1630, one chapter is devoted to the surgeons: *The mistakes of the surgeons and other specialists of the same profession*. "The most common mistake of the surgeons is to practice surgery without having studied it before, without the necessary knowledge and without theoretical science, and being satisfied with it. For this reason, he is not punished by hazard for badly administered care." The surgeon is less excusable if he makes a mistake than the physician who treats diseases, as the latter should make use of conjectures for his diagnosis and his treatments in most cases. However, the ignorance of a physician who gives the wrong remedy should also be punished, according to Zacchias. Among the list of errors perpetrated by surgeons, one can find the incision of a nerve during a phlebotomy, resulting in the member's paralysis, as happened to Charles IX, the King of France, or to remove too much blood and leave the patient in "hypothermia." The problem of amputated noses, organs of respiration and beauty, attracted the attention of Zacchias for a long time, as cut off noses were not uncommon during the Renaissance, either during a fight or as a legal punishment. No wonder the possibility of reconstructing a nose with the person's own flesh, as initiated by the Branca family in Catania (Sicily), and later described and illustrated in detail by Tagliacozzi (1545-1599) had a large impact in Italy. Moreover, the rumors (fake news of the time!) of transplanted noses from other individuals were frequent and even published by serious doctors. The possibility of re-implanting a nose was even so widespread that the organ was sometimes destroyed so as to be certain that it would not serve as a graft. In this context, Zacchias questioned the law to know if one should allow a surgeon to reconstruct the nose of a criminal who had his nose cut off as a punishment. After debating the pros and the cons, he finally concludes that the law should not be opposed to a reconstructive rhinoplasty, "all the more since the extremely painful and lengthy operation (the arm flap) can be considered in itself as a punishment."

## THE COLLABORATION WITH JUSTICE

Zacchias' work also contains superstitious views on magic, witches, and demons, which were widely held at the time. Both theological and medical knowledge was required to differentiate natural cases of sickness from supernatural causes, which might require the attention of the Catholic Church. Zacchias was known for a skeptical approach that attempted to eliminate natural causes before diagnosing phenomena as witchcraft. Medical practitioners were also made available to diagnose and distinguish between miracles and natural causes. For example, to consider a woman (more rarely a man) as a witch, one had to find on her typical stigmata, "the satanic marks" that had to be assessed by at least three doctors, mostly surgeons essentially trained for this practice. The examination had to be carried out in a bright and clear space and repeated three times in the same location. The signs were not specific.

<sup>2</sup> A few historians speculate that while in exile Justinian had reconstructive surgery done by an itinerant Indian plastic surgeon to repair his damaged nose.



## MONTANDON CONTINUED

It could be a mole or a spot on the skin that could be pricked with a needle without inducing either pain or bleeding. If the spot was located deep in the body, like in the throat or the anus, it was definitely a diabolic mark (Figure 5). The sorceress was then tortured in order to draw further proof of her allegiance to Satan and then condemned to death in the worst manner.

Although this collaboration between surgeons and justice is repugnant to our present knowledge, it could be compared to doctors who nowadays help in devising methods of interrogation with specific tortures or the ones who accept to do the so-called "anal test" to prove that a man is a homosexual<sup>3</sup>.

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<sup>3</sup>Theories behind such tests date back to Zacchias' writings on sodomy and to an 1857 treatise by the French doctor Augustin Ambroise Tardieu who thought he could identify signs of "habitual pederasty," such as "funnel-shaped deformation of the anus" and the "relaxation of the sphincter." At least eight countries in the world still allow examination of the anal sphincter by surgeons as a proof of homosexual practices.



Figure 5 - In search of the satanic marks.