From Delphi to the prefrontal cortex: a historical journey through the theories of hysteria

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ABSTRACT

Introduction. The Egyptian papyri of Kahun and Ebers introduce the idea of the wandering uterus, according to which the uterus, craving for gestation, caused a distinct condition (suffocated sensation, palpitations, choking) that the Greeks called hysteria (from ὑστέρα, uterus). The name and pathophysiology of hysteria have changed over the centuries, but even today the condition continues to be studied in the field of neuroscience.

Objective. This historical review analyses the different definitions and concepts of hysteria in Western civilisation over the centuries.

Development. For centuries, Greek and Roman physicians (Hippocrates, Galen, Soranus, Celsus) believed that hysteria originated in the uterus, although some disagreed with the concept of the wandering womb. In the Middle Ages, and in the context of Christianity, hysteria was attributed to demonic possession and witchcraft. During the Renaissance, Willis and Sydenham regarded hysteria as a nervous and emotional disorder; before them, Sylvius described how women presented hysteria and men hypochondriasis. During the Classical period, Whytt wrote about hysteria and hypochondriasis, stressing their emotional component, while Mesmer formulated the outlandish theory of magnetism. In the 19th century, Briquet provided a detailed description of the wide range of manifestations of hysteria, while Charcot used hypnosis to diagnose (induce) and treat the condition. Influenced by Charcot, Freud used introspective hypnotism and free association to cure the patient Anna O., who had chronic cough. The hypothesis of sexual frustration as the cause of hysteria was widespread during the first third of the 20th century; with the First World War, new forms appeared in men. The term "hysteria" was removed from successive editions of the Diagnostic and Statistical Manual of Mental Disorders, and the concepts of dissociative disorder (mind) and somatoform disorder (body) were introduced.

Conclusions. Functional disorder is the current preferred term: the pathogenesis of this condition involves the prefrontal cortex, which is connected to other regions of the brain (limbic system, hippocampus, motor and sensory cortex, etc), decreasing the patient's will and consequently suppressing (vision loss, amnesia, aphasia, paralysis) or potentiating the function of other brain regions (pseudocrises).

KEYWORDS

Hysteria, conversion disorders, functional disorders, neurohistory

Introduction

Modern society is facing a major value crisis and an everlasting economic crisis; in this context, consultations are flooded with patients complaining of a wide range of symptoms for which physicians are sometimes unable to provide an organic explanation. These patients suffer greatly, undergoing numerous diagnostic examinations without success. The cold statistics say that a quarter of cases may be classified into the misunderstood group of functional disorders.[1,2]

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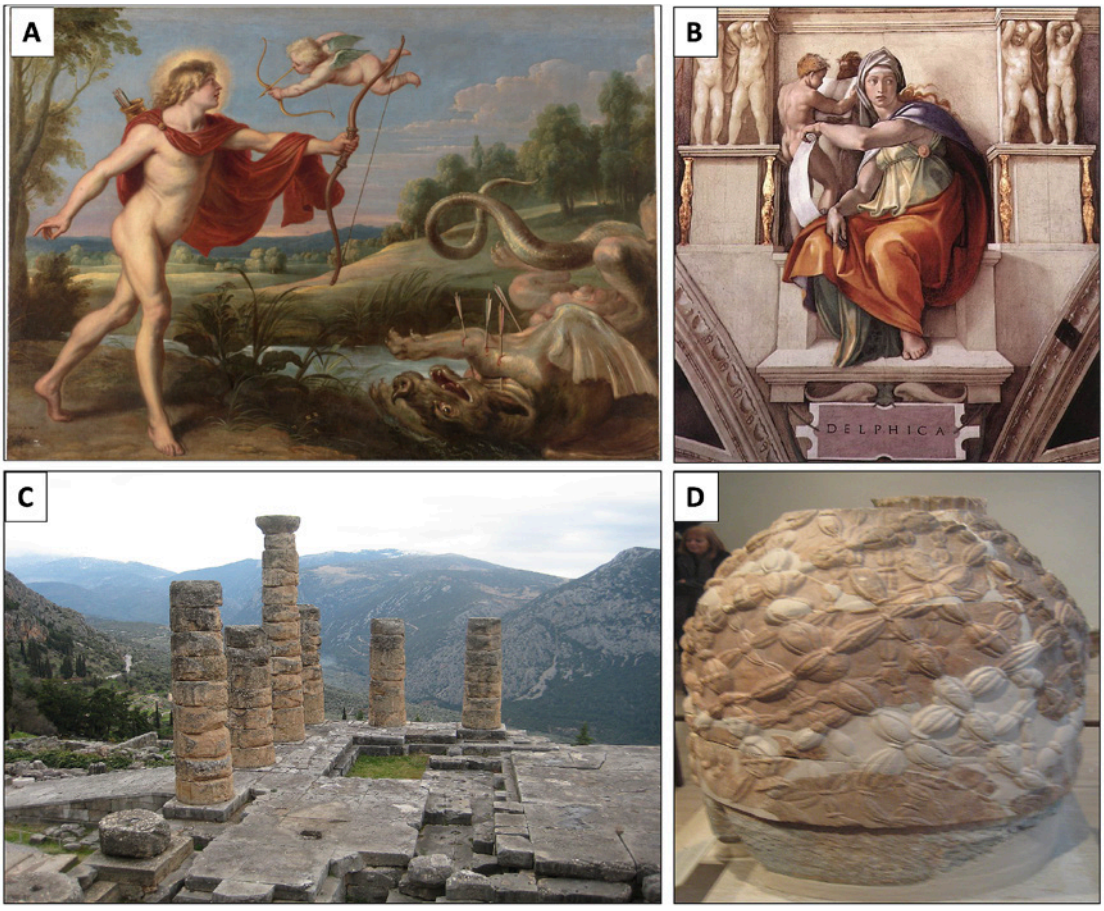

Figure 1. A) *Apollo and the serpent Python* (oil painting by Cornelis de Vos, ©Museo Nacional del Prado). B) Delphic Sibyl, by Michelangelo (detail from the Sistine Chapel). C) Ruins of the Temple of Apollo in Delphi. D) The omphalos (Delphi Archaeological Museum).

Among the many theories about the pathogenesis of functional disorders, special emphasis has been placed on the hypothesis that these disorders result from a deficient integration of unresolved emotional conflicts (ie, from the subconscious), which, in the context of a particular genetic inheritance, frustrating vital experiences, and the lack of stimulating future expectations, ultimately translate into psychosomatic disorders.[3-10] The uterus, the female reproductive organ par excellence and the first and much yearned-for cradle of any human being, has served since time immemorial as an explanation for some symptoms of hysteria. Today, however, there can be no doubt that the uterus, classically considered a wandering entity, has for some strange or magical reason been replaced by the telencephalon, one of the most distinctive parts of the human brain. This historical review[11-17] provides a comprehensive analysis of the different theories surrounding hysteria over the centuries, from the Temple of Apollo at Delphi to the prefrontal cortex.

Development

The Greeks: the term

According to Greek mythology, Mount Olympus was the most important mountain on Earth, the home of the gods, who were immortal and all-powerful, but also had a similar corporeal form and capricious nature to their true creator, *Homo sapiens*. The muses, who inspired artists and were the patrons of the arts, lived at Mount Parnassus, near the naiads, who preferred the crystalline waters of the nearby springs. The most prominent of all

temples dedicated to Apollo was built in the unequalled location of Delphi, at the base of Mount Parnassus. According to legend, Apollo killed the serpent Python, the guardian of the omphalos (ομφαλος, navel), a stone that marked the centre of the earth. To locate this point, Zeus, the king of the gods, sent out two eagles in opposite directions, and they met, beak to beak, at the omphalos. Python was accompanied by the dragon Delphyne, also destroyed by Apollo, who subsequently seized the oracle and appointed the first priestess (Sibyl). Apollo deserves special mention for being the father of Asclepius, who was raised and mentored by the centaur Chiron, whom he surpassed in knowledge and healing skills. Asclepius, whose powers and positive results nearly left Hades, king of the underworld, and the ferryman Charon unemployed, was made the god of medicine by Zeus, who granted him a place on Mount Olympus (Figures 1 and 2).

The following text is inscribed in the Temple of Apollo in Delphi:

> I warn you, whoever you are, Oh! You who want to probe the arcana of nature, that if you do not find within yourself that which you are looking for, you shall not find it outside either! If you ignore the excellences of your own house, how do you pretend to find other excellences? Within you is hidden the treasure of treasures! Know thyself and you will know the Universe and the Gods.*

It was this inscription that inspired Socrates' (470-399 BCE) aphorism "know thyself."[18,19]

In Greek, the words ὑστέρα (*hystera*) and Μήτρα (*mitra*) designate the uterus, the female reproductive organ par excellence, the first and much yearned-for cradle of any human being. The word hysteria is derived from ὑστέρα. The word *delphys* also means womb, whereas *adelphos* means brother (from the same womb).

Ancient Egypt: the origin

For many centuries, at least in Western civilisation, uterine dysfunction was believed to be the cause of hysteria, one of the most polymorphic and disconcerting diseases affecting humankind. Although the term hysteria is derived from one of the Greek words for uterus, the relationship between this nosological entity and the female reproductive organ had already been proposed in Egyptian medicine. The papyri of Kahun (19th century BCE) and Ebers (16th century BCE) present the concept of the uterus as a restless, hungry, frustrated organ that wandered around the body, pressing against the lungs (sighing dyspnoea) and heart (palpitations and oppression in the chest) and closing the throat (globus hystericus). The papyrus of Ebers describes some treatments aiming to promote the return of the uterus to its natural location: the patient should sit on a cloth perfumed with liquid myrrh, and a mixture of incense and dry excrement from men was burnt underneath, around a phallic-shaped object, to fumigate the patient's vagina.[17,20-22]

The classical Greco-Roman world: the womb as a static vs a wandering organ

Hippocrates of Kos (460-370 BCE) is one of the most prominent figures in the history of medicine (Figure 2). Throughout his long life, he practised scientific medicine with the ambitious goal of dispelling superstitions and false beliefs. The Hippocratic corpus, an extensive collection comprising 72 volumes, is attributed to Hippocrates of Kos, although it may be a compilation of the contributions made by several members of his school. Regarding hysteria, Hippocrates supported the aetiopathogenic hypotheses of Egyptian medicine, locating the origin in the uterus, while postulating that epilepsy originates in the brain; he also regarded the latter as an organic disease and rejected a divine origin (*morbus sacrum*). In Plato's (428-347 BCE) dialogue *Timaeus*, Socrates makes an observation based on the Hippocratic doctrine[23]:

> […] the same is the case with the so-called womb or matrix of women; the animal within them is desirous of procreating children, and when remaining unfruitful long beyond its proper time, gets discontented and angry, and wandering in every direction through the body, closes up the passages of the breath, and, by obstructing respiration, drives them to extremity, causing all varieties of disease […].†

Hippocratic medicine rejected the miraculous cures of Asclepius. In the *asclepeia* (sanctuaries or healing

*Translator's note: translation taken from: Ancient Greek Courses [Internet]. Reggio Emilia (IT): Roberto Rossi; ©2018. "Know thyself"; [cited: 1 Dec 2022]. Available from: https://ancientgreekcourses.com/anthropology/know-thyself/

†Translator's note: translation taken from: The Internet Classics Archive [Internet]. [s.l.]: MIT; ©1994-2009. Timaeus by Plato; [cited 1 Dec 2022]. Available from: http://classics.mit.edu/Plato/timaeus.html

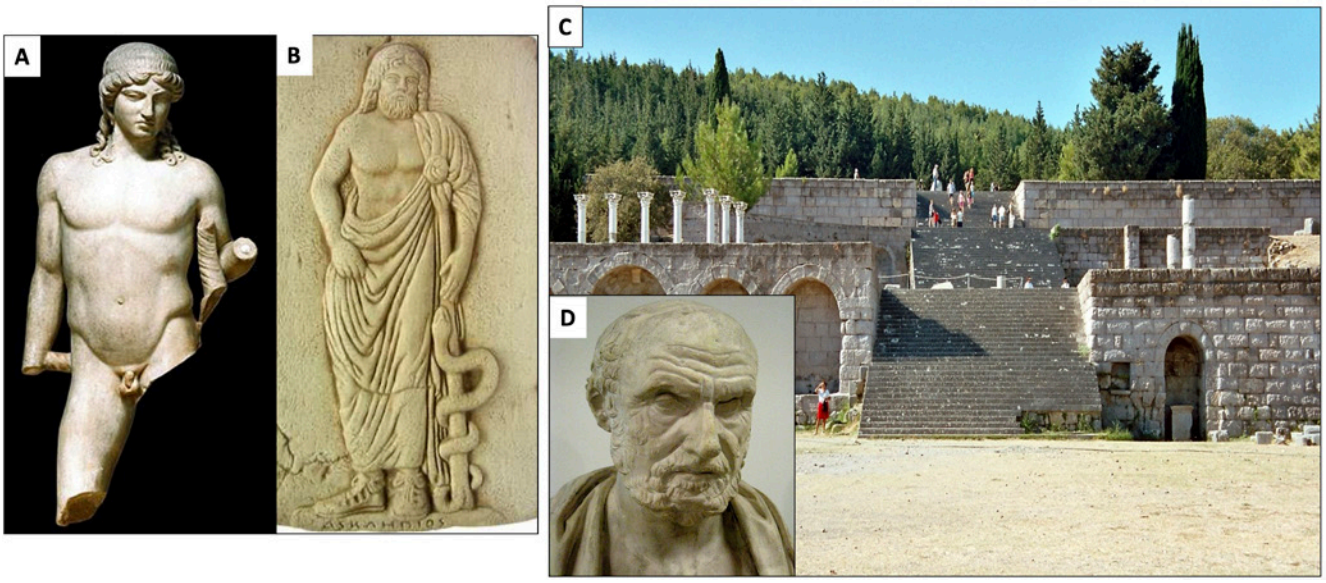

Figure 2. A) Apollo (Musée du Louvre). B) Asclepius (reconstruction of bas-relief fragments). C) Ruins of the Asclepeion of Kos. D) Hippocrates.

temples dedicated to Asclepius), many patients with hysteria were cured upon awaking from induced sleep (hypnosis?, suggestion?), during which they dreamt of "the god holding a rod with a serpent coiled around it." The results and popularity of the Sanctuary of Asclepius in Epidaurus undoubtedly rival those of many religious centres in the East and the West that remain active today (Figure 2).

The theory of the wandering womb was not supported by Galen of Pergamon (130-200 CE). This renowned physician also believed that hysteria originated in the uterus, but postulated that the organ remained in the pelvis. Galen believed that retained female sperm is corrupted when it is mixed with menstrual blood, causing hysteria. Soranus of Ephesus (98-139 CE), regarded as the first expert in gynaecology, wrote a biography of Hippocrates and followed his theories on the origin of hysteria. For several centuries, many renowned physicians espoused the theory of the wandering womb, while others postulated that the uterus remained in the abdomen. The Schola Medica Salernitana, active from the 9th to the 19th century, opposed the theory of the wandering uterus, as the organ was always found in its natural location during dissections. Paul of Aegina (625-690) followed the preceding theories about uterine suffocation and convulsions, which he defined as "a rising up of the uterus, affecting sympathetically the most important parts, as the carotid arteries, the heart, the membranes of the brain."‡ This may cause a wide range of symptoms, including paralysis, fear, deep sleep, disordered speech and senses, and muscle spasms. In his *Viaticum*, Constantine the African (1020-1098) stated that when young women and widows did not have sexual intercourse, they were unable to expel their sperm, which became corrupted and evaporated inside them, rising to the diaphragm and causing respiratory and phonological dysfunction (Figure 3).[12,15-17,21,24,25]

God, the Devil, and witchcraft in the Middle Ages

With the spread of Christianity and the defence of sexual abstinence and chastity, the uterus took a back seat and the Evil One came to be considered the causal agent of hysteria. Augustine of Hippo (354-430) is thought to have been one of the first authors to abandon the idea

‡Translator's note: translation taken from: Riddle JM. Dioscorides on pharmacy and medicine. Austin (US): University of Texas Press; 1985. p. 35.

of suffocation of the womb and support the theory of the demonic possession of the patient's soul. During the Medieval period, the combination of the Devil and witchcraft as the explanation for hysteria formed an explosive cocktail, and the disorder was often seen as a collective plague, rather than a disease affecting the individual. Science and culture were dominated by the Christian faith, which had an explanation for everything: God and relics cured more than any physician, and the good life came after death.

The abuse of power, justified in the name of God, frequently caused mass hysteria. Women, considered 13 times impure and whose menstrual cycle was of similar length to the lunar cycle, were frequently accused of witchcraft, and came to be considered as essentially infernal creatures. Poverty triggered the outbreak of hysterical symptoms, with plague and leprosy also playing a pivotal role.

Satan also had legions of supporters (black masses, promiscuity, belladonna potions, etc). Witchcraft and witch purges peaked in the late Middle Ages and the beginning of the Modern Era. Some of the transgressions attributed to witches were fornication and adultery (with no intention of procreation), castration, causing impotence and sterility of men, sodomy, homosexuality, contraception, abortion, and child killing.

In contrast with the postulates of Christian faith, Arab culture supported a return to ancient Greek texts; the Persian Avicenna (980-1037) and the Andalusian Averroes (1126-1198) are two major figures of Islamic philosophy. Arnaldus de Villa Nova (1238-1311), who for many years practised and taught medicine in Montpellier, believed in the natural causes of human disease. He was charged with heresy, but managed to escape the stake on two occasions.[12,17,21,24,26-28]

The Renaissance: the return of the uterus and the brain

During the Renaissance, hysteria was again associated with the uterus and its wanderings. As a treatment for this ailment, pleasant-smelling substances were applied to the vulva (the Frenchman Ambroise Paré [1510-1592] designed a speculum for this purpose) while foul-smelling substances were held at the nose; we also must not forget the supreme nutriment, male sperm, provided during copulation inside marriage. The rich ladies of the Kingdom of Navarre fumigated their vaginas before entering the wedding chamber to ensure that the uterus was in its due place, allowing the sperm to mix with menstrual blood.

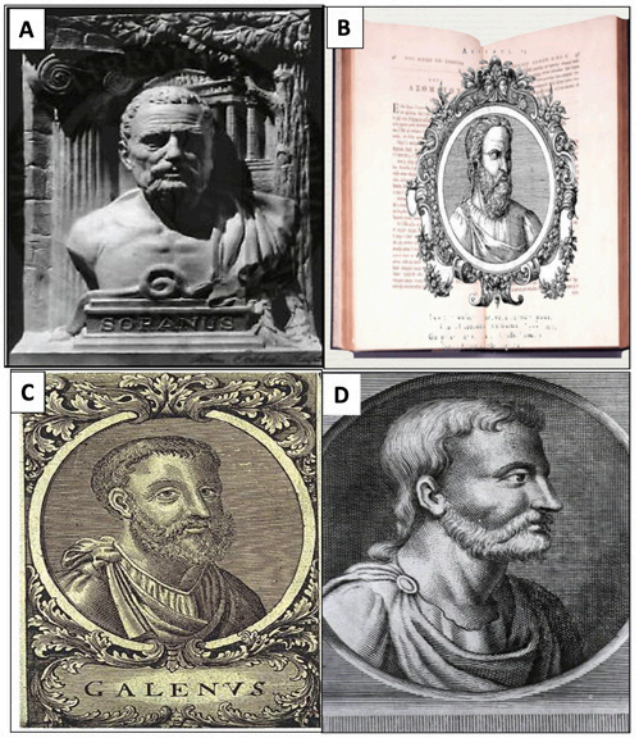

Figure 3. A) Soranus of Ephesus. B) Aretaeus of Cappadocia. C) Galen of Pergamon. D) Aulus Cornelius Celsus.

Jacques Dubois (1478-1555), also known by the name Jacobus Sylvius, distinguished hysteria, a disease of women, from hypochondriasis, which predominantly affected men. For Sylvius, hysteria appeared abruptly, first causing heaviness of the limbs and generalised somatic discomfort, followed by crises characterised by shouting, convulsions, and loss of consciousness. Hypochondriasis, in contrast, developed progressively, with an initial period of delusions of disease, followed by anxiety and somatic complaints, with the final stage being characterised by either recovery or a state of irreversible organic changes.

According to the English physician Thomas Willis (1621-1675), all convulsive attacks originated in the brain, and epilepsy was the result of an explosion in the centre of the brain. Hysteria originated in the nerves (vagus, intercostal, etc), and thus affected visceral functions.

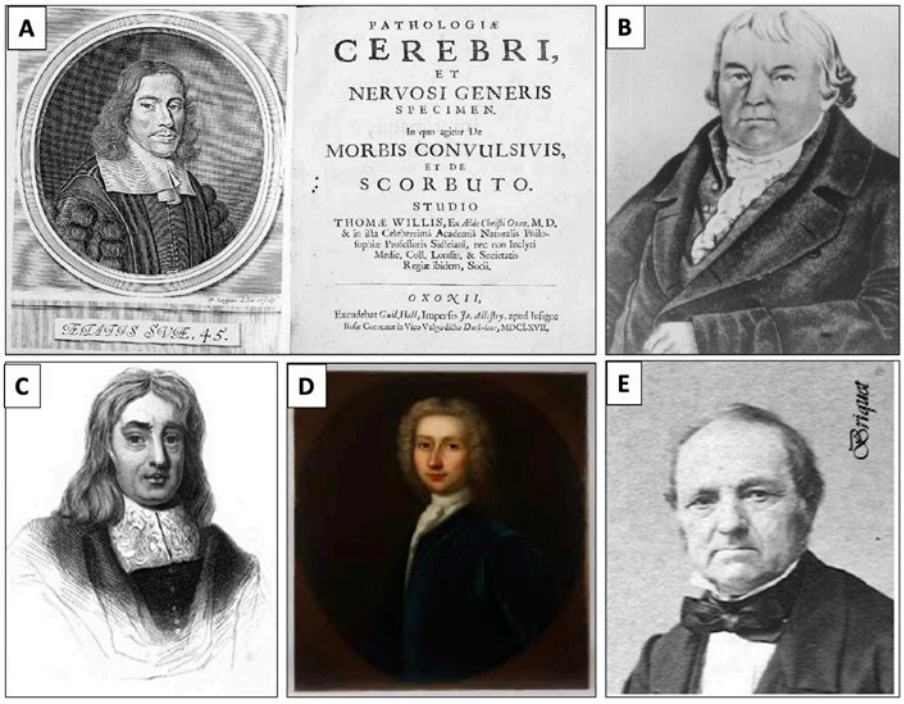

Figure 4. A) Thomas Willis. B) Franz Anton Mesmer. C) Thomas Sydenham. D) Robert Whytt. E) Pierre Briquet.

Disturbances of the mind may alter the humours, causing both types of crises. Willis may have been the first physician to consider hysteria a neurological disease. Thomas Sydenham (1624-1689), also from England and a contemporary of Willis, regarded hysteria as the expression of an emotional and mental problem, but did not reject the theories attributing its pathophysiology to the uterus. In the description of the disease that bears his name, Sydenham chorea (now linked to rheumatic fever), the author found similarities with outbreaks of choreomania or St. Vitus' dance, a social phenomenon occurring between the 14th and 17th centuries.[12,15-17,21,26,28]

The Classical period: emotional disturbance as the cause of hysteria

Over the 17th and 18th centuries, the concept of hysteria remained somewhat linked to the uterus, although there was growing support for the theories postulating an emotional cause. Anxiety and depression began to be associated with hysteria, although physicians had trouble distinguishing depression from hypochondria. The Scottish physician Robert Whytt (1714-1766) wrote a famous treatise on the topic, *Observations on the nature, causes and cure of those disorders which have been commonly called nervous, hypochondriac, or hysteric diseases, to which are prefixed some remarks on the sympathy of the nerves*.

Well into the Age of Enlightenment, a curious character named Franz Anton Mesmer (1734-1815), born in the German region of Swabia, formulated the rather obtuse and never understood theory of animal magnetism (in fact, the theory was questioned and he was investigated by Lavoisier, president of the French Académie Royale des Sciences). The theory of animal magnetism sought to achieve a rational understanding of such unexplained events as the recovery of patients with convulsions, paralysis, or blindness, without resorting to God or the Devil. Awarded a Doctorate in Medicine by the University of Vienna, his fame and social impact (he was a patron of W.A. Mozart) grew over time. Mesmer claimed to have discovered a universal magnetic fluid able to cure some patients. He attempted to bottle this mysterious fluid and, with the help of the Jesuit priest M. Hell, designed and created therapeutic magnets of

a wide range of shapes and sizes. He also collaborated with the Toledan gunsmith Marino Salva Vargas to create the vessel that would contain the precious fluid. Mesmer later moved to Paris, where, unable to explain his curative methods, he was rejected by the Académie Royale des Sciences. In reality, Mesmer can be seen as a precursor to suggestion and psychotherapy, who also used music during his interventions (Figure 4).[12,17,29]

The 19th century: hysteria ruled

The term Briquet syndrome (chronic hysteria) is still used in neuropsychiatry to refer to the combination of multiple somatic complaints of diffuse pain, sexual dysfunction, digestive problems, and functional neurological disorder (conversion). The syndrome was named after the French physician Pierre Briquet (1796-1881), whose *Traité clinique et thérapeutique de l'hystérie* describes seven clinical patterns of hysteria: hyperaesthesia and pain, anaesthesia, hallucinations, spasms, convulsions, paralysis, and excessive secretion of saliva, sweat, or urine.

Despite all the advances made during this period, a curious episode of mass hysteria is reported in Morzine (Savoie) in 1857, when a group of girls preparing for their first communion presented episodes of fainting, contortions, and cursing, which frightened everybody in the village. In a context of poverty, lack of education, and a powerful church, the number of cases of alleged possession increased, affecting a significant portion of the population. At that time, women, the unfortunate protagonists of this story, lived a life of near-slavery, devoting their lives to work (household, children, crops). A conflict began between physicians and those who supported using exorcisms and processions to combat demonic possession. The matter gradually resolved in a little over a decade with the intervention of the army, which built roads and organised parties, opening up that closed community to the world.

The leading figure in medicine during the second half of the Romantic era was Jean-Martin Charcot (1825-1893), considered the father of neurology; following Laënnec's ideas, he introduced the anatomoclinical method, in addition to providing astoundingly precise descriptions of such entities as multiple sclerosis, amyotrophic lateral sclerosis, Parkinson's disease, chorea, and focal dystonia (occupational cramps). The all-knowing Charcot argued for the involuntary, unconscious nature of hysteria and described the differences between this entity and neurasthenia (comparable to fatigue). He classified hysteria, together with migraine and epilepsy, in the group of paroxysmal or dynamic *névroses* causing functional changes, in contrast with structural lesions.[30] For years, Charcot used suggestion and hypnosis as a diagnostic weapon, triggering hysterical fits (Figure 5). In the final years of his life, after the "miraculous" recovery of several patients who had visited famous religious centres, such as the sanctuary in Lourdes, Charcot began to consider the involvement of a psychogenic component in these cases and the use of suggestion and hypnosis as a treatment (*La foi qui guérit*, 1892). Charcot, who was unable to identify the cerebral region involved in the pathogenesis of hysteria, continued to be labelled as an arrogant organicist by some supporters of the existence of the spirit, free and independent of the influence of the brain.[12,16,17,21,29] After Charcot's death, interest in hysteria at the Salpêtrière quickly faded.

Hysteria: the germ cell of psychoanalysis?

In 1890, Sigmund Freud (1856-1939), a Moravian neurologist with an extraordinary scientific (histopathological) background, visited the Salpêtrière to study under Charcot. Upon his return to Vienna, he collaborated with J. Breuer; it was with Breuer that Freud studied and managed the peculiar case of Anna O., after which he began to develop his theory about the psychogenic origin of hysteria. Freud moved away from Breuer's cathartic treatment for hysteria, developing the free association method, according to which patients were asked to freely recount anything that came to their mind. In 1895, he published the book *Studies on hysteria*, in which he argues that hysteria, rather than from physical trauma, is derived from emotional trauma, which interacts with personality traits (fantasies, fears, unfulfilled wishes, etc). The book addresses the unconscious, repression, transference, childhood sexuality, and human sexuality in general, among other topics, laying the groundwork for psychoanalytic theory, although Freud's *Introduction to psychoanalysis*, which presents the theory of ego and its defence mechanisms, was not published until 1916.[31-33]

Anna O. was in fact a pseudonym for Bertha Pappenheim, a woman with chronic, compulsive cough who was attended by Breuer and Freud. After being released from Bellevue Sanatorium, in Vienna, she published several books, some of which presented feminist or social

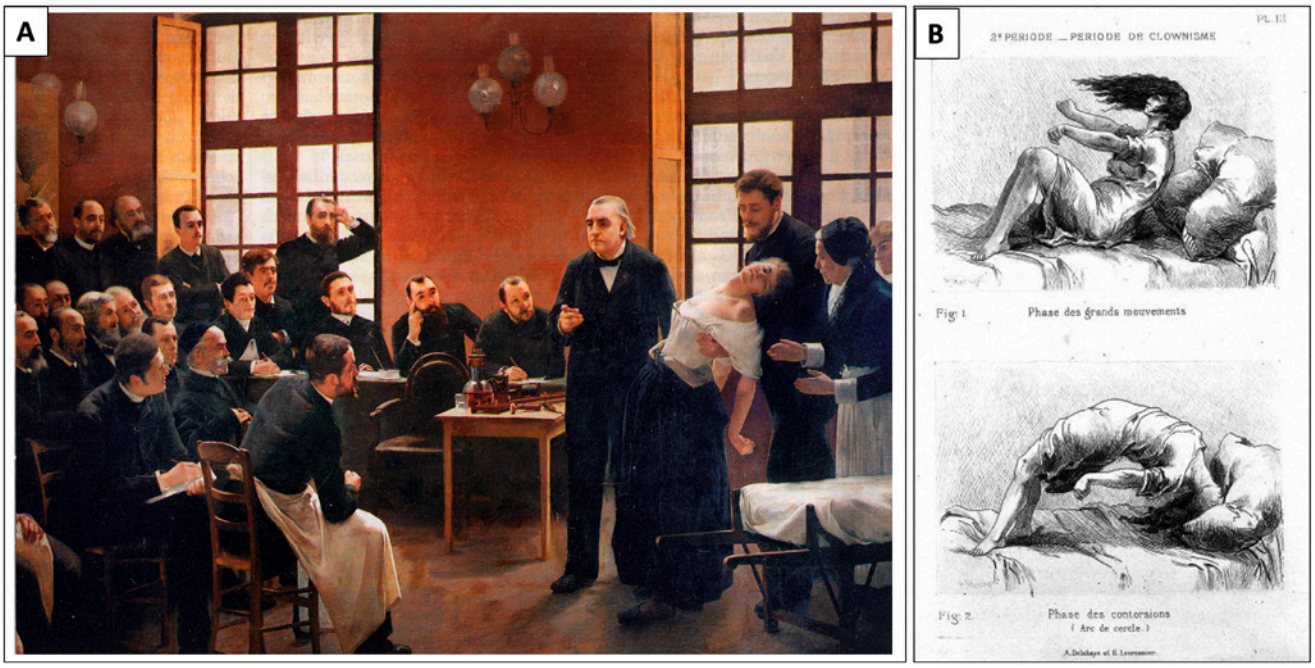

Figure 5. A) *Une leçon clinique à la Salpêtrière* (oil painting by A. Brouillet). B) Stages of a "grande crise d'hystérie," according to J.M. Charcot.

activist ideas. In *Sisyphus work*, she recounts her visits to hospitals, asylums, brothels, etc, stating that nothing justifies silence in the face of injustice: "To be aware of injustice and remain silent is to become an accomplice." She is considered one of the first social workers. The available evidence suggests that she did eventually recover from her illness (Figure 6).

Hysteria as a manifestation of sexual frustration

Freud's theories revived the idea that hysteria was, in a sense, a disease of the uterus and adjacent structures. The severity of sexual frustration was thought to determine the spectrum and intensity of its manifestations: as Robert Brudenell Carter (1828-1918) put it, "solicitas maior, maior ad hysteriam proclivitas." Pelvic massage, used as a treatment for hysteria, was performed at many consultations, initially manually and subsequently with phallic-shaped electromechanical tools, the first of which was patented by the English physician Joseph Mortimer Granville in the 1880s. This marked the onset of the era of vibrators, first used by physicians at consultations and later by the patients themselves at home. The decline of these devices came during the first third of the 20th century, when women's magazines and catalogues (we know of a 1918 advertisement published by Sears department stores) ceased to advertise vibrators and dildos as instruments designed to relieve tension and anxiety (Figure 6).[12,31-33]

Hysteria and war: mass hysteria

The Battle of Marathon took place in 490 BCE during the first Persian invasion of Greece, in which a modest contingent of Greek troops fought the mighty army of Persian king Darius the Great. When the unequal battle came to an end, Pheidippides was sent to run from Marathon to Athens; upon his arrival, he announced "we have won," after which he collapsed to the ground, closing his eyes forever. The marathon running race was created to honour the legendary run. The Greek historian Herodotus (ca. 484-420 BCE) recounts the story of a soldier at the Battle of Marathon who lost his sight, despite suffering no injury. After his defeat in the

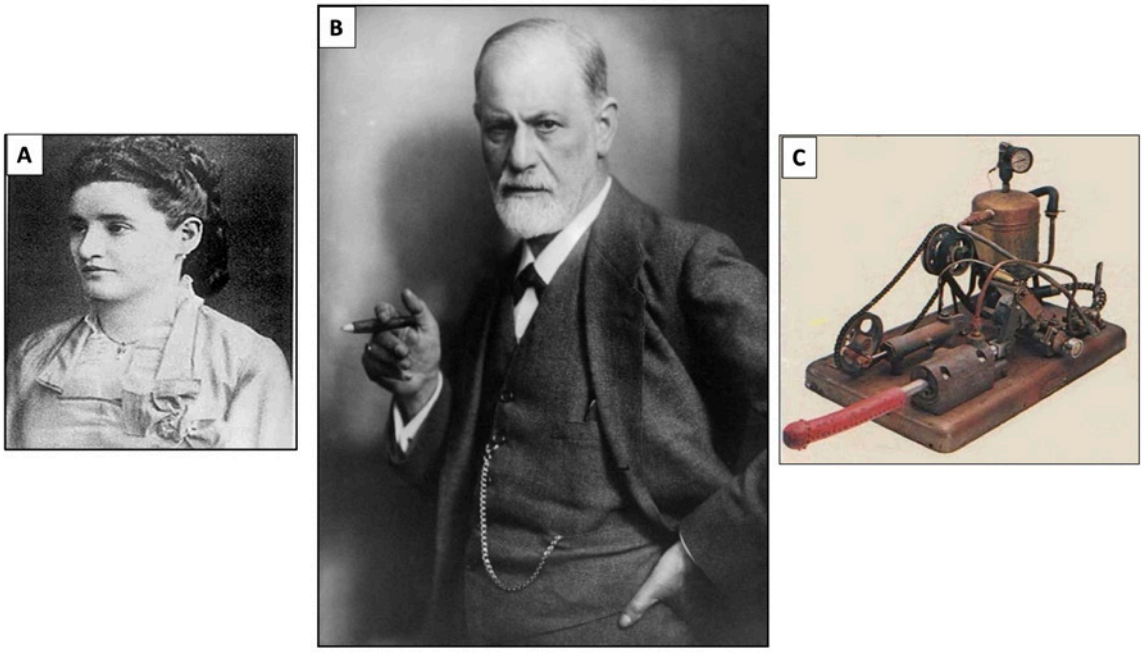

Figure 6. A) Bertha Pappenheim. B) Sigmund Freud. C) One of the earliest vibrators.

First World War, Adolf Hitler also presented hysterical blindness, which resolved with psychotherapy. Edmund Forster, who committed suicide in 1933, was the psychotherapist that forever changed the shy personality and fragile voice of the future Führer, who developed a new persuasive tone, with horrendous consequences.

War and tribal conflict are a constant in the history of humankind; they represent a superior, collective mission in which individual interests and desires are completely erased and subjugated. War causes tremendous stress for individuals and the community, leading to overwhelmingly large numbers of cases of physical, neurological, and mental dysfunction, with enormous social and economic costs. Camptocormia (excessive anterior flexion of the trunk while standing and walking) was particularly frequent among soldiers of the First World War, whose brains could never forget the fear experienced in the trenches, where they had to walk with a stooped posture. Much has also been said about psychiatric disorders after the Second World War and the Vietnam War, or Gulf War syndrome. The mechanism by which these disorders spread is believed to be similar to that of mass hysteria. It has been suggested that some currently diagnosed collective disorders, such as sick building syndrome, may have a similar pathophysiological mechanism.[12,34]

The end of the term "hysteria": the Diagnostic and Statistical Manual of Mental Disorders

Numerous followers of Freud and Jacques-Marie Émile Lacan (1901-1981), one of Freud's main successors, assert that a disorder generated by the unconscious mind can only be understood and resolved through psychoanalysis. According to Lacan, through psychoanalysis, individuals with such disorders should be seen as "analysands" of their own unconscious mind rather than patients. According to French psychoanalyst Diane Chauvelot, the term hysteria is so beautiful and holds so much history that it should never disappear.[12]

In 1952, the American Psychiatric Association published the first edition of the Diagnostic and Statistical Manual

of Mental Disorders (DSM). Three years earlier, the World Health Organization had published the sixth revision of the International Classification of Diseases (ICD), which for the first time included mental illnesses. The third edition of the DSM, published in 1980, omits the diagnostic category of hysteria and includes that of somatoform disorders, defined as disorders presenting with physical symptoms that resemble those associated with organic disorders but that have a psychogenic origin. This category included conversion disorder (hysterical neurosis, conversion type), whose symptoms resemble a neurological disorder (pseudocrises, paralysis, sensory alterations, involuntary movement, etc). Another category in the DSM-III is dissociative disorders (hysterical neurosis, dissociative type), which alter the integrative functions of memory, consciousness, and identity. Multiple personality, psychogenic amnesia, and psychogenic fugue are the most relevant dissociative disorders. Factitious disorders (seeking medical attention) and malingering (seeking material gain) also constitute a separate category. Ideas, emotions, conflicts, and traumatic experiences in the patient's mind are expressed as or "converted" into physical symptoms in general or neurological symptoms in particular (DSM). Traumatic events (some of which may be sexual, either terrible memories or deep frustration) remain in the subconscious mind and this compartmentalisation may isolate from conscious control certain brain regions associated with motor, sensory, and mnestic functions (dissociation in the ICD).

Recent studies employing functional neuroimaging[35] have observed similar alterations in patients with conversion amnesia, anaesthesia, and paralysis and in individuals presenting similar symptoms induced by hypnosis, namely prefrontal cortex hyperactivity, which indicates the involvement of the executive system, suppressing the activity in other areas (motor, sensory, limbic, mnestic, etc). Hysteria and hypnosis are reunited, and the old therapeutic approach of inducing sleep in *asclepeia* returns, disguised as a novel treatment.[6,12,35,36] At present, the diagnosis of functional disorders does not require the presence of emotional symptoms or history of stressors; rather, more emphasis is placed on positive semiology for the condition.

Central sensitisation syndrome and globalisation

In the second half of the 20th century and the early 21st century, a period swept by successive economic crises, many patients complained of chronic pain and such other symptoms as fatigue and menstrual and sexual dysfunction. A great proportion of these patients were women, who were rising up and struggling against the abuses and discrimination they had been subjected to for centuries. Little over a century ago, Roberto Nóvoa Santos (1885-1933), the leading figure of Galician medicine, reflecting the general thought of the time, stated that "women are of no use for study since their progeny will be poor, both physically and mentally."[37]

Central sensitisation syndrome (a new form of hysteria?) is a relatively recent term[38] encompassing multiple disorders characterised by an amplified perception and experience of pain (a psychophysical rather than sensory experience) or other sensory modalities, presenting similar manifestations and pathophysiological mechanisms to those of such conditions as fibromyalgia, regional pain syndromes (tension-type headache, migraine, temporomandibular joint disorders, interstitial cystitis, irritable bowel syndrome, dysmenorrhea, vulvodynia, myofascial syndrome, etc), chronic fatigue, multiple chemical sensitivity, depression, generalised anxiety, bipolar disorder, and obsessive-compulsive disorder. Such globalising ideas should not come into conflict with the conviction, forged over centuries of medical practice, that each patient has his or her personal experience and that paying careful attention to patient-reported symptoms continues to play an essential role in our practice.

Despite the publication of numerous studies and guidelines, conversion disorders, now known as functional disorders (as the involvement of a psychogenic mechanism cannot be confirmed in all cases), continue to be a source of concern for neurologists and psychiatrists, as several surveys have revealed.[39,40] Some studies report that functional disorders constitute the second most frequent cause of consultation with the neurology department.[41]

Conclusions

Functional or conversion disorders have always existed. However, their clinical manifestations, patho-physiological interpretations, and treatment has changed over the centuries. The pathogenesis of these disorders involves both individual (genetic factors and traumatic experiences) and social factors (religion, famine, war, plagues, pandemics).

Conflicts of interest

This study has received no funding of any kind. The author has no conflicts of interest to declare.

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