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HISTORICAL-ANTHROPOLOGICAL INSIGHTS ON EPILEPSY FROM HIPPOCRATES TO POSITIVISM

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Summary

The history of epilepsy appears to be mainly a progressive detachment from gods. Hippocratic medicine, for its part, stands out as the first technique (*techné*) able of unfettering men from the divine by explaining illness with natural and rational laws: the sacred disease, that is to say epilepsy, does not have divine characteristics, but rather a “rational structure” (*physin*) and “rational causes” (*prophasin*). Starting right from Hippocrates, we aim at providing a short history of epilepsy ending with the late-nineteenth-century perspective (especially Lombroso) which stated that epileptics didn’t have cerebral disorders or injuries, but they were characterized by a degeneration already affecting their ancestors and detectable by means of anthropometry and skull measurements.

Key words: the sacred, superstition, medical technique, Positivism

In these few lines, we will mention some critical periods of the history of medicine with reference to epileptic phenomena, leaving your in-depth further investigation to reading of the indicated specialised texts.

Epilepsy, that the Babylonians called *miqtu*, “disease that makes you fall”, derives its name from the Greek verb *epilambanein*, “to struck suddenly”, “to take by surprise”.

People were so concerned with its abrupt, violent, sudden, magmatic onset that they saw in epilepsy the characteristics of the gods, of the sacred dimension: *caducus*, *sacer*, *astralis*, *demoniacus*.

The Babylonians believed that the medical treatment should be practised by a priest through purifications and specific sacrifices: the objective, in particular for mental illness, was to trigger a cathartic, “psychotherapeutic” effect (1).

The epileptic was thought to be a victim of evil forces, to such an extent that the Hammurabi’s Code (1780 BC) forbade epileptics to marry; furthermore, holes were drilled in the epileptics’ skulls in order to make the “wicked demon” go away (to learn more about other

purification practices and “sacred removal” of epilepsy in ancient times (2, 3).

To summarise, the epileptic was considered as a type of possessed person to be left in the care of a doctor-priest, a privileged guardian of the sacred (the word “sacred” derives from an Indo-European root which means “separated”: a both alluring and repelling power, later defined as “divine”, that religion tries to “rejoin”, *re-ligere*, by means of practices and rituals, in sacred places ruled by priests who mediate with its immense force (4).

Due to Hippocrates, the thematic perspective changes completely: men relinquish the sacred to rely on the medical technique. Hereafter you will find the excerpt from the *Sacred disease*: “It is thus with regard to the disease called Sacred: it appears to me to be nowise more divine nor more sacred than other diseases, but has a natural cause from the originates like other affections. Men regard its nature and cause as divine from ignorance and wonder because it is not at all like to other diseases. And this notion of its divinity is kept up by their inability to comprehend it.” (§1, translated by Adams).

The above Hippocratic excerpt represents paradigmatically the founding moment of the human medicine and its emancipation from the Divine (5).

So, medicine is the original form of the technique – in the Cratylus, 414 b-c, Plato says that the term “technique” comes from *hexis nou*, which means “be the master and make use of one’s own mind”- that frees itself from the divine: the sacred disease (this is the phrase used to indicate epilepsy in ancient times), does not have divine characteristics but rather it has a “rational structure” (*physin*) and “rational causes” (*prophasin*).

Epilepsy thus becomes the human, deeply human, pathological archetype, the rational motivation.

Thus epilepsy becomes the human, deeply human, pathological archetype, the rational motivation, clue-by-clue procedure, guesswork, processes involving attempts and confutations (Alcmaeon of Croton used the phrase *tekmairestha*) (6-8).

The medical art, starting from epilepsy, no longer believes that gods control the space and time where the natural life of man takes place, not even the ancient philosophy of *physis* which is considered as the principle embracing and sustaining everything (just think about Anaximander, DK 12A15) can do that, and let alone the myth, completely projected towards the past, seen as the founding act of the human. Only technical knowledge is capable of that.

This future-oriented knowledge (*prognosis*), finds in technique the new Episteme, the Rationale that embodies itself into experience in order to be tested, checked so as to position itself as praxis (5, 9).

In the normal practice, the practitioner does not just occasionally act, but establishes a rational path (*prophasin*), aimed at harmony leading to health.

In a word, epilepsy has natural causes and so it must be treated with rational techniques aimed at restoring “the right proportion”, the right balance.

According to Hippocratic texts, illness originates from an imbalance between the external environment (weather, air, beverages, food) and the internal environment, that is the human body: the unbalance on bodily “humours” (10); on the humoral unbalance of epilepsy, cf. also Galen, *De Locis affectis*, III, 9: ed. Kühn, vol. VIII, pp. 176 and sgg; on the epilepsy as the expression of the “melancholic disease”, linked to the black bile, which is one of the four humours, cf. Aristotle, *Problema XXX*, I).

On the concept of health as harmony, as temperance the Greek moulded one of the most important messages for modern man: man is a whole whose parts are in balance, “right in the middle”, *medietas*, from which Latins will derive the word “medicine” (Isidoro di Siviglia, *Etimologiae od Originis*; (11-13).

Galen, additionally, believed that psychic faculties, such as intelligence, memory and will, were determined by the physico-chemical conditions of the brain and, as a consequence, mental disorders were thought to originate from cerebral lesions, from the balance loss. According to Galen, in the wake of Plato’s *Timaeus*, the brain was the seat of the “rational soul, the starting point

of nerves, the origin of voluntary movements (*On the Doctrines of Hippocrates and Plato*) (10).

In the Galenic conception, disease was considered as *dyscrasia*, humoral disorder, whereas health was eucrasia, harmony, measure, peaceful coexistence of parts.

Pursuing further this historical overview, it should be noticed that Celsius (III, 23,1) used the phrase *comitialis morbus* to underline the fact that the epileptic seizure was so serious a problem that meetings could be postponed because of it; in the same way Suetonius (Div. Iul., 45, 2): *comitali quoque morbo bis uinter res agendas correptus est*.

So, in ancient Rome, Comitia the oldest Roman assembly – were suspended if one of the participants was struck by epileptics fits. Even Julius Caesar was believed to suffer from epileptic attacks: Plutarch Caesar, 17, 2; 53, 5-6; 60, 6-7; Suetonius, Div. Iul., 45, 2; Appian, Bell. Civ., II, 10).

Here follows a telling testimony to the fact that Julius Caesar could not take part in the battle of Thapsus against Juba in 46 BC: “Others, however, say that Caesar himself was not in the action, but that, as he was marshalling and arraying his army, his usual sickness, epilepsy, laid hold of him, and he, at once aware that it was beginning, before his already wavering senses were altogether confounded and overpowered by the malady, was carried to a neighbouring tower, where he stayed quietly during the battle” (Caesar, 53, 5-6 translated by Perrin).

The advent of the 4th century, the decay of Roman and the Byzantine medicine laid the foundation for demonology. Christian religion brought about the belief that the devil would master every single body part and would prompt illness, especially mental illness. There was a return of magic and, in particular, of the concept of demonic possession, which turned the spotlight on exorcists and the Church, rather than on doctors.

It was thought that the devil could cause psychic disorders; as evidence of that, Sulpicius Severus classified a number of symptoms used to diagnose demonopathy (14).

Around the 13th century, for instance with Arnaldus de Villa Nova, 1238/40-1313, a sort of conciliation between Galenic medicine, astrology, alchemy and popular superstition was attempted. These conciliation efforts were not successful, considering that, at the end of the XV century Kraemer and Sprenger wrote the famous work *malleus malleficarum*, in which epilepsy appeared as one of the characteristics used to identify those who practised witchcraft.

De proprietatibus rerum, wrote by the Franciscan monk Bartholomaeus Anglicus and disseminated in the 12th and 13th centuries, was an important study of mental illness in the Middle Age, presenting interesting physiological and pathological reflections (15).

If it is true, as stated by Foucault (16), that madness gained its full semantic, existential and cultural status during the Modern age – when asylums became the

“container” of mad people, seen as outcasts, comparable to lepers in ancient times- it is also undeniable that mental illnesses were not neglected in the Middle Age.

«Medieval authors, who inherited medical knowledge from classical times and from late latinity, detected and described some mental illnesses, even if in the Middle Age, as happened in other fields of scientific investigation, notions that later merged in an area having an independent epistemological statute were scattered in different, shadings off into other branches» (15, 17).

Epilepsy encountered prejudice even in the Renaissance, despite the great scientific-cultural renewal: epileptic phenomena were thought to have genetic, more precisely sexual, nature (there was a line of transmission hidden in the sexual glands, which manifests itself with epileptics fits during puberty). In addition, it was firmly believed that it was advisable not to talk to or bathe with epileptics. It was not until the 18th century that epilepsy, unfettered from superstition, in particular Due to the studies of Tissot, who not only described a phenomenology of epileptic seizures, but also found their causes in some cerebral responses to particular stimuli (with convulsions). He talked about the consequences of epilepsy and differentiated them into moral and physical (18).

In practice, Tissot, underlined two components of epilepsy: the brain availability to undergo contraction (predisposing cause or “prolegumena”) and the irritating cause, capable of making this very brain availability operational (leading or “procatartic” cause”).

As to epilepsy, Tissot argued that “popular prejudice is the consequence of an ancient superstition, which had already been unmasked by Hippocrates but still has survived for more than 2000 years” (19).

With the nineteenth-century positivism, the anatomical and neurophysiological nature of epilepsy was eventually taken into consideration. Around the first half of the 19th century, epilepsy was thought to be caused by the irritability of certain cerebral areas. For example, Robert Bentley Todd reckoned that in all the epileptic cases the first affected areas were the lobes and then the quadrigeminal bodies; as to the disease intensity, the extent of the medulla oblongata involvement was thought to play a crucial role.

Against this backdrop, as Temkin said (20), a deep dialectic clash between neurology and psychiatry took place in order to establish which discipline should be the one in charge of dealing with epilepsy.

It was only later that Huggings Jackson (21, 22) provided a binding physiopathological definition of epilepsy: “convulsion is just a symptom resulting from an occasional, an excessive and a disorderly discharge of nerve tissue on muscles” whose cause has an irritating nature.

From a historical-anthropological point of view, considerable importance should be also placed on the branch, both psychiatric and criminological, focusing on the concept of degeneration. For example, in Morel’s opinion, epilepsy had a degenerative-hereditary nature, and therefore doctors should study the patient’ life, per-

sonality and temper, rather than the cerebral localisations: the objective was to identify the characteristics of degeneration signs on the physical level (abnormalities of the somatic traits in the face and in the auricle) as well as on the psychic level (male criminality, female prostitution).

Morel’s studies influenced, in Italy, Tonnini, Morselli, Tamburini and most of all Lombroso. The common denominator between these authors is the following conviction: epileptics do not have cerebral disorders or lesions, but rather a degeneration, which was already present in their ancestors and detectable with the anthropometry and skull measurements (23-25).

In this context, Lombroso published in five editions, between 1876 and 1897, his most important work *The criminal man*. In the fourth edition, on the basis of the widespread theories of the time according to which epileptics could commit any type of murder and crime, Lombroso talked about a hidden epilepsy that could lead to criminal derangements even of individuals without physical traumas. In the last edition of 1887, he placed epilepsy at the foundation of the criminal behaviour, encompassing both moral madness and atavism. But let us read his own words: “Just as the moral insane overlaps with the congenital criminal, only differing in the trait exaggeration, the epileptic criminal offers the exaggeration of moral madness; and since two things, which are equal to a third one, are precisely the same, it is therefore true that innate delinquency and moral insanity are nothing but two different versions of epilepsy”.

In practise, according to Lombroso, the difference between congenital delinquency, madness or moral fury and epilepsy was not qualitative but rather quantitative (26).

Assael and Avanzini (24), in their intense *Il male dell’anima. L’epilessia fra ‘800 e ‘900*, underlined with great clarity how in the 19th century – the century marked by the beginning of the experimental medicine – epilepsy was studied and categorised, in opposite directions, on the basis of ideas linked to those dawning biological conceptions, such as evolution and inheritance, that provided the spark for some of the theories that would deeply influence the decades ahead.

On the one hand, there was the development of the clinical and criminal anthropology; on the other hand there was the rise of the clinical and experimental neurology.

On the basis of patient examination and important laboratory test results, epilepsy appeared to be the real foundation of Lombroso’s theories as well as of the disease due to which the current pattern of cerebral functioning was developed.

Some authors, such as Morel, saw epilepsy as the *abysmal* expression of human degeneration, whereas others identified the main psychological traits associated with the disease: hypochondria, egoism, exaggerated religiosity, aggressiveness.

Leonardo Bianchi locked in the thinking of the late 19th century idea that the epileptic, considered just as a madman at the beginning of the 19th, was a “born criminal”.

Here follows his paradigmatic testimony: “The whole life of an epileptic shows a hatred, which is concealed in normal conditions, even disguised as goodness, but brutally bursts out at the slightest occasion; horror, ugliness, evil, destruction, death are in the background of his soul (...) the epileptic’s temper is similar to the born criminal’s temper (...) Lombroso rightly recognized the great analogy between the born criminal and the epileptic” (27). □

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