Summary

Galen of Pergamum (130-200 A.D.) was one of the greatest authorities in Medicine. Hippocrates first and Galen later traced the scientific approach in Medicine and were the founders of the modern Medicine. Galen by his extensive scientific work contributed greatly in the fields of anatomy, correlative anatomy, experimental research, topographic diagnostics and neurosciences. In addition, his scientific orientation was influenced by philosophy, given that he was educated under the special philosophical atmosphere of the Hellenistic era. Galen was one of the most productive authors. He composed, more than five hundred dissertations on medicine, psychology, philosophy, medical ethics, logic and grammar. His work exercised great influence in Medieval medicine and contributed substantially in shaping the profile of the modern medicine. In the field of neurosciences Galen’s contribution was much valuable. He was an expert anatomist of the nervous system. Galen, Herophilus and Erasistratus may be characterized as the founders of the Neuroanatomy. Galen’s theory on the function of the human body was encephalocentric. He considered that the brain is the center of the human existence, the ruler of the human body, the “hegemonicon” of the psychosomatic entity of the human being. In the field of neurosciences and clinical neurology he contributed substantially, describing the function of the spinal cord and emphasizing its importance in motion and sensation. Galen described also the syndromes of the transverse section and hemic section of the spinal cord and many vascular syndromes of the brain. Galen improved the technique of trepanation and applied it for drainage of intracranial hematomas and relief of intracranial pressure. Galen described the sympathetic chain, defined the roots of the spinal nerves and concluded that the spinal nerves are mostly mixed, motor and sensory. In case of damage of the nerves sensation and movement disappear in the field of their distribution. Galen described a considerable number of mental disorders such as phrenitis, paraphrenia, delirium, mania, melancholy, coma, carus, lethargy, catalepsis, epilepsy, which are serious disorders of the “hegemonicon”. Galen insisted that, in addition to mental diseases, there are other conditions, which are the consequences of human errors and passions. Galen claimed that the liberation of the man from the anger, the fear and the desires is a milestone on his way to peace of soul and is also the basis of a free and noble personality. Ambition and envy are main causes of interior troubles. A free man should liberate himself from desires and fear. The efficacious treatment of the passions is their total and complete eradication, which demands continuous fight and persistence. Galen was pioneer in the field of psychosomatic medicine. He is also one of the first Neurophilosophers, who attempted to associate neurosciences with philosophy in a harmonious unity.

Keywords: Galen, Medicine, Philosophy, Neurosciences, Neurophilosophy

Introduction

After the great contribution of Hippocrates in the development of the scientific medicine, in classic Greek era, Galen contributed substantially in shaping the profile of modern medicine six centuries later, in Hellenistic era.

Galen by his extensive scientific work introduced in medicine (a) the anatomical observation, (b) the topographic diagnostic approaching of the diseases and (c) the experimental investigation. Galen was more analytic than Hippocrates in his dissertations, concerning the description of the diseases and attempted to associate the clinical medicine with the experimental investigation.

In the field of Neurosciences Galen was an eminent authority, who radiated through centuries. He opened new paths in brain anatomy and described numerous neurological disorders.

It was expectable that science and philosophy were amalgamated in Galen’s work, since he lived and studied inside the special philosophical atmosphere of the
Hellenistic times, where philosophy played a dominant role in scientific conceptualism.

A substantial number of Galen’s observations and description of the structure and function of the nervous system may be characterized as original. Some of the clinical observations by Galen, have been described many centuries later by other authors.

On Galen’s life

Galen¹ was born in Pergamum, a Greek city in Asia Minor, which flourished during the Hellenistic period and became a principal medical center, which had one of the best Aesculapia in that times. Galen’s father, Aelius Nicon was architect and philosopher and according to his son he was well versed in mathematics and grammar and in addition he was a very peaceful, just, kind and merciful man, a gifted man².

Nicon wished to give his son an excellent education, including studies in Philosophy and Medicine. Thus, Galen begun to study philosophy at the age of fourteen³ and medicine at the age of sixteen, at Pergamum initially by the Hippocrarians Stratonius and Satyrus. He went later to Corinth and then to Alexandria in Egypt, in search for the best professors, where he studied Medicine for four years by Heraclianus, who was the son of Numisianus, a very expert physician of Alexandria, a city which was characterized by the very high level of the medical education in Hellenistic Era.

In 157 A.D Galen returned to Pergamum, where he was appointed as official physician of gladiators, been distinguished for the very successful treatment of traumatic lesions.

In 162 A.D Galen went to Rome, supported by Glaucon, a philosopher who recognized his exceptional medical efficiency and his pious character. Galen in Rome remained for short time⁴, and started travelling later in Syria, Cyprus, Palestine Phenica, returning in Pergamum finally. Galen was invited to Rome by the Emperor Marcus Aurelius, who wished Galen as imperial physician, to accompany him against the Germanic tribes. However Galen did not accompany Marcus and he stayed in Rome, in order to confront the epidemic diseases and to look after his son Commodus. After Marcus’ death Galen supported as physician Commodus⁵ and later after Commodus tragic end in 192 A.D. he stayed in Rome with the emperor Pertinax (193 A.D) and then he served as personal physician to Septimius Severus (193-213 A.D.). Galen gained great reputation in Rome, although he faced many difficulties due to contradictions and jealousy of his fellow physicians and philosophers. Flavius Boethus, whose wife was treated by Galen from a serious health problem supported Galen and encouraged him in teaching medicine and releasing lectures in the cycles of physicians, philosophers and intellectuals in Rome. Galen stayed in Rome for the rest of his life, until his death at the age of seventy in 199 or 200 A.D. According to Arabian sources Galen died aged 87 in Sicily⁶.

Galen’s scientific work

Galen was very productive author⁷. He begun to write articles in the age of thirteen. As medical student

---

¹Important sources of Galen’s life are his works “The Order of My Own Books” (Ord. Lib. Prop.) (XIX. 49 – 61 Kühn), and On My Own Books (Lib. Prop.) (XIX. 8 – 48 Kühn) and also in XIV. 599 – 673 Kühn and V. 1 – 103 Kühn.

²V. 40,15 –41,8 Kühn. “I did enjoy the good fortune of having the least irascible, the most just, the most devoted, and kindest of fathers” XIX, p. 39 (De libris propriis, ch. 21)

³“ὑποπληρώσας δὲ τετταρεσκαιδέκατον ἔτος ἤκουον φιλοσόφων πολιτῶν, ἐπὶ πλεῖστον μὲν Στωϊκοῦ, Φιλοπάτορος, μαθητοῦ, βραχὺν δέ τινα <χρόνον> καὶ Πλατωνικοῦ, μαθητοῦ Γαΐου, διά τὸ μὴ σχολάζειν αὐτὸν, εἰς πολιτικὰς ἀσχολίας ἐπειγόμενος εἰς τὴν πατρίδα μηδενὶ (XIX. 15,16 – 18 Kühn).

⁴“ἥτις δὲ τρισὶν ἄλλοις ἐν ῾Ρώμῃ διατρίψας ἀρξαμένου τοῦ μεγάλου λοιμοῦ παραχρῆμα τῆς πόλεως ἐξῆλθον ἐπειγόμενος εἰς τὴν πατρίδα μηδενὶ (XIX. 15,16 – 18 Kühn).

⁵“… αὐτὸς μὲν ἐξῆλθε, καταλιπὼν δὲ τὸν υἱὸν Κόμοδον, παιδίον ἐτ’ ὄντα κομιδῆ νέον, ἐνετείλατο τοῖς τρέφουσιν αὐτὸν, ἐναποκείμεναν ἀναμφίβολα ἐπιτίθεματα μὲν ἱδρυμένα καλαίστερα τοῖς κορίτσισι” (X. 18,9 – 18,19 Kühn).


⁷Galen is a gifted writer. His language is elegant, eloquent, clear, concrete, explicit, pleasing and poetic. See also De Lacy, P. 1966. “Galen and the Greek Poets”. In: Greek, Roman and Byzantine Studies 7, 259–266.
he composed a treatise on the anatomy of uterus, based on personal observations in apes. Galen wrote on almost every scientific field. In total, he composed more than five hundred dissertations on anatomy, medicine, philosophy, medical ethics, logic and grammar. In his extensive work, Galen tried to incorporate all the theories in Medicine and Philosophy, describing also his personal observations, theories, ideas and doctrines. He tried also to reduce the distance between theory and practice, knowledge and experience, proving the value of the existent harmony between the theoretical education and the practical application in Medicine. He criticized frequently Aristotle and the eminent physician Erasistratus and his disciple Martialius, whereas he expressed his admiration and high respect for Hippocratic works.

Unfortunately large number of Galen’s dissertations on Philosophy have been lost during the years and only few have survived in the original Greek text. The conflagration in Rome in 191 A.D. destroyed large number of Galen’s manuscripts, and as a result we know only a small part of the extensive Galen’s contribution in Philosophy.

Galen exercised a great influence in western and Arabic Medicine. His manuscripts remained textbooks of reference in medieval Medicine. In contrast to Hippocratic writings, which are mostly synthetic and observational, Galen’s ones are analytical, based extensively on experimental investigation.

Galen gave much emphasis on the structural and functional background of the diseases and the etiology of the pathological processes. However his medical theories are frequently amalgamated with philosophical doctrines. Galen in addition to clinical Medicine worked in the fields of descriptive anatomy, physiology, pathology, pharmacology, psychology and psychiatry. He endeavored to find the causative factors of the diseases and to localize the suffering viscera on the basis of the clinical symptoms and signs. Galen attempted to classify the diseases on the basis of the main symptoms and clinical signs and on the basis of the suffering part of the body.

Galen introduced many pharmaceutical plants, collected from many countries, for the treatment of the diseases. He tested the pharmaceutical properties of the plants in large number of clinical cases in order to choose the most efficient of them. In addition, he invented many medical instruments for the anatomical dissections and the surgical operations and moreover he was a pioneer in the study, description and treatment of psychosomatic diseases.

Unfortunately large number of Galen’s manuscripts is lost. Between the years 1821-1832 K. G. Kühn published Galen’s extent works in Leipzig, The edition in 22 volumes includes the Latin translation and about 10,000 pages of Greek text.

**Galen’s physiology**

Galen had a perfect knowledge of the philosophical and medical tradition, that preceded his work. It is reasonable, therefore, that a fundamental concept in Galen’s Physiology was the theory of the four “humors” of the human body, which was derived from Hippocratic similar theory. Whenever the yellow bile, the black bile, the blood and the phlegm are intermixed in right ratio and balance, under ideal conditions of temperature and humidity the human body is healthy, being in a state of homeostatic equilibrium.

The preponderance of one of the four humors acts a great influence on the character and the personality of the man, resulting in the bloody, the choleric, the

---

10Erasistratus theories and concepts are incorporated in the works of Rufus of Ephesus and Marinus of Alexandria. See Rufus of Ephesus, ed. C. Daremberg and C. E. Ruelle, Paris, 1879.

11Galen’s works were studied by many authors. We mention among the others Fridolf Kudlien, Hans Diller, Karl Deichgräber, Ludwig Edelstein, Owsei Temkin, Luis Garcia Ballester.

12Hippocrates De natura hominis, IV, 13-15 “Τὸ δὲ σῶμα τοῦ ἀνθρώπου ἔχει ἐν ἑωυτῷ αἷμα καὶ φλέγμα καὶ χολὴν ἡμεῖς τἀῦτα ἐστὶν αὐτῷ ἡ φύσις τοῦ σώματος, καὶ διὰ ταῦτα ἄλγει καὶ ὑγιαίνει. Ὑγιαίνει μὲν οὖν μάλιστα, όταν μετρίως ἔχῃ ταῦτα τῆς πρὸς ἄλληλα κρὴσιος καὶ δυνάμιος καὶ τὸν πληθός, καὶ μᾶλιστα μεμιγμένα ἡ δὲ ἄλγει ν ὅταν τούτων τι ἔλαθαν ἢ πλέον ἢ χωρισθῇ ἐν τῷ σῶματι καὶ μη κεκρημένον ἢ τούτι σῶμασιν»

13According to Galen the human body is divided into two different structures: the homogeneous (homoeomerous) and the organic ones. In the homoeomerous structures every part is like every other. Therefore the structure may be characterized as homogeneous if it is divisible into similar parts like the bones, the muscles, the veins, the arteries, the ligaments, the nerves, the membranes. Organic parts are the structures which are composed of various tissues like the lungs, the stomach, the heart, the liver the spleen, the kidneys and the brain.
mellancholic and the phlegmatic character.

Therefore, the good or bad balance of the human humors is related with health or disease. In cases of imbalance (dyskrasias) the man suffers from disease, the severity of which is related to the severity of the imbalance and the deviation from the homeostatic equilibrium.\(^{14}\)

Pain is the symptom of the dysfunction, dyskrasia or traumatic lesion of a part of the human body. Pain is a manifestation of the loss of the harmony of an area of the body, which is important for the topographic localization of the suffering tissue or organ\(^{15}\) and the detection of the causative factor of the disease.\(^{14}\)

Essential doctrine in Galen’s physiology is the concept of spirit (pneuma πνεῦμα) which from the respiration inserts in the lungs, then it is transmitted to heart, to liver, to brain and it is diffused in every part of the body. The spirit in the heart is transformed to vital spirit\(^{16}\), which is the source of the natural temperature of the body.

The vital spirit in the brain is transformed into psychic spirit (pneuma) by the choroid plexuses of the ventricles and the retiform plexus or rete mirabile in the base of the brain, around the hypophysis. The psychic spirit is the most perfect kind of spirit, which might be the substance of the soul\(^{17}\), although Galen admitted that he could not define the substance of the soul.

The psychic spirit is located inside the four ventricles\(^{18}\) of the brain, it moves in the interconnected ventricles and in any anatomical structure of the brain and then it is transmitted through the nerves in the whole body\(^{19}\) giving sensation and movement. Thus, the ventricular system is the most precious part of the brain.

Pain is the symptom of the dysfunction, dyskrasia or traumatic lesion of a part of the human body. Pain is a manifestation of the loss of the harmony of an area of the body, which is important for the topographic localization of the suffering tissue or organ\(^{15}\) and the detection of the causative factor of the disease.\(^{14}\)

Brain is the seat of intelligence, memory, fantasy, cognition, sensory perception and motor control. According to Galen the brain is the “hegemonicon”, the principal organ which controls all the functions of the human body, directs the volition\(^{20}\) produces images, understands thoughts and adjust the behavior. Brain is the center of sensation. It perceives all the sensosensorial stimuli from the sensory organs via the nerves.

\(^{14}\)I. 413 – 508 Kühn
\(^{15}\)διήγυμα δὲ, καθ’ ὄν ἀν ἐρείδῃ τόπον, ἦτοι συνεχεῖας λύσιν, ἢ ἀλλοίωσιν ἀθρόαν ἐνδείκνυται. λύεται μὲν οὖν ἡ συνέχεια, καὶ διαφρύτει, καὶ βλάσει, καὶ τάσει. ἀλλοιοῦσα δὲ ὡς ὀψία θερμή, καὶ ψυχρή, καὶ ξηρή, καὶ ὑγρή (I. 357,6 – 10 Kühn).
\(^{16}\)«ἐκ μὲν τῆς κεφαλῆς φησι τὸ ψυχικὸν, ἐκ δὲ τῆς καρδίας τὸ ἐντελεχένιον όρμασθαι πνεῦμα» (V. 281,5 – 6 Kühn)
\(^{17}\)«πόστερον δ’ ὅν τὸς ἔστιν ἢ χρεία τοῦ ψυχικοῦ τοῦτον πνεύματος καὶ τὰς ἀγανοείς ἐπὶ τὸ ἄκριβεστατον ὁμολογούντες ωσίν ψυχής ὡς ὡς τομήματι ὀνομαζέει» (III. 542,2 – 4 Kühn).
\(^{18}\)«καὶ δὲ τῶν τραχειῶν ἀρτηρίων πνεύμα τὸ ἐξωθεὶν ἑλθέν ἐν μὲν τῇ σαρκὶ τοῦ πνεύμονος τὴν πρώτην ἐργασίαν λαμβάνει, μετὰ ταῦτα δὲ ἐν τῇ καρδίᾳ τε καὶ τὰς ἀρτηρίας καὶ μάλιστα ταῖς κατὰ τὸ δικτυοειδὲς πλέγμα τὴν δευτέραν, ἐπειτὰ τὴν τελευτάτην ἐν ταῖς τοῦ ἐγκέφαλο τηλικίας, ἔνα ἐκκαὶ ἡ ἡμερή ψυχικὸν ἀκριβώς γίγνεται» (III. 541,16 – 542,1 Kühn).
\(^{19}\)Herophilus was one of the first authors who claimed that the seat of the psychic spirit is the ventricles of the brain. Ac-
Galen as Neuroscientist

Galen’s contribution in the field of Neurosciences is very important. Galen described ten of the cranial nerves, the corpus callosum, the tectum, the formix, the epiphysis or pineal body, the sympathetic chain, he also distinguished the roots of the spinal nerves. He described the recurrent laryngeal nerve, characterizing it as vocal nerve or nerve of the speech. He described the ventricular system of the brain as the seat of the psychic spirit. In addition, Galen described the blood vessels of the brain and studied extensively the function of the spinal cord, emphasizing its importance for the movements of the body and limbs.

Galen was an excellent orator and tutor. He described his scientific methods as proving “αποδεικτικάς”24, given that they are based on objective observation and experimental verification. He insisted that every problem might be solved by the right observation and experimental investigation, based on the best methodology. The scientific work needs intelligence, knowledge and experience.

Any problem should be analyzed thoroughly with clarity. A plan should be made for the application of the proper methodology for the faster approach to the right solution25.

Many problems analyzed by Galen were subjects of discussions and controversies in Medicine and Philosophy for many years.

In addition to the main question, concerning the dominant role of the brain or the heart in the human psychosomatic entity, Galen posed also the problem of the fetus as existence, which raised many disputes with Asclipiades.

Although Galen was very analytic in his descriptions and discussed all the possible views and explanations on every matter, he endeavored to come in concrete conclusions, avoiding extreme skepticism and void argumentation, which might only cover the ignorance. All the problems necessitate right investigation, evaluation and verification of the right solution27, by the best scientific methodology.

Experience and good medical education are essential factors for the solution of medical problems. Many years of clinical practice are needed for the best beneficial contribution of a physician. The theoretical knowledge is also important for the choice of the right methodology in approaching and solving scientific problems.

According to Galen the thinker should avoid dogmatism, since everything is flexible and changeable. There is a continuous motion «κίνησις» of thoughts and knowledge that does not permit any dogmatic fixation. In the biologic world everything is changeable and there are two main principles, the birth (γένεσις) and the decay (φθορά), which control and modulate all the biological phenomena28.

According to Galen the physician must be philosopher, intellectual, with good knowledge of logic and with high moral standards in order to be much beneficial to his patients, respecting, protecting and healing their psychosomatic entity29.

22 «οἷόν τέ ἐστιν εὑρεθῆναι τὴν οὐσίαν τοῦ προκειμένου πράγματος· αὐτὴν δὲ τὴν ἔννοιαν ὁμολογουμένην ἅπασιν ἐλέγομεν» (x, 40–42 K.).

23 In 1811, Sir Charles Bell concluded, after experimentation in animals, that the function of the anterior roots was motor and in 1822 Francois Magendie in Paris verified that the anterior root are concerned with motion and the posterior with sensation.


26 DL IX 92–93

27 «τῆς ἔννοιας πρότερον ὀμολογηθείσης, ἢς χωρις οὐχ οἶδον τε εσπειρεθήναι τὴν οὐσίαν τοῦ προκειμένου πράγματος· αὐτὴν δὲ τὴν ἔννοιαν ὀμολογομένην ἀπανειλέγομεν χρήσι τοῦ λαμβάνειν, ἢ οὐδέν ἄρχην δεόντως ὀνομάζεσθαι... τὰς δὲ τῆς οὐσίας αὐτής κατατέθηκεν πράγματος εὐρέσεις τε καὶ ζητήσεις καὶ ἀποδειξεῖς οὐκετῇ ἐκ τῶν τοῖς πολλοῖς δοκούντων, ἀλλ' ἐκ τῶν ἐπιστημονικῶν λημμάτων» (x, 40–42 K.).

28K.II.3

29 Galenic medical ethics are based mostly on Hippocratic...
Galen’s contribution in the study of the nervous system and the role that the brain plays in the homeostatic equilibrium of the soul and body is of substantial importance. Galen studied the structure of the brain extensively and it is reasonable that he is considered with Herophilus and Erasistratus as the founder of Neuroanatomy. He dissected the brain by various types of sections and various visual angles in order to get a detailed three-dimensional view of its anatomy and obtain a precise knowledge of the topographic relationships. In his manuscripts on the brain Galen described the anatomical methods that he applied in dissecting the brain for the best visualization of its interior morphology. Galen introduced large number of terms in the field of Neuroanatomy, which survived and are in use until know.

Galen was the first physician who proceeded to experimental research. He might be considered as the founder of experimental physiology and experimental neurosurgery. He proceeded to experimental investigation on pigs, horses, apes, and other animals, since the autopsies on corpses were not allowed in his era and on the other hand he wished to combine investigation on physiology and anatomy at the same time. His anatomical studies on various animals enabled him to describe the anatomical variations between species, becoming therefore the pioneer in correlative anatomy.

In the field of neurophysiology Galen studied the function of the spinal cord and the structure of spinal column. He made remarkable observations on the lesions of the spinal cord. He noticed that on transverse sectioning of the spinal cord all the movements are abolished below the level of the section and total anesthesia is induced. He proceeded to transverse sectioning of the spinal cord at various levels in animals and described the distribution of the motor and sensory loss in the body under the level of the lesion. On sectioning the spinal cord at the level of the fifth cervical vertebra, Galen described the motor and sensory loss in the upper and lower limbs, whereas the diaphragmatic respiration remained intact. On transverse semisection of the spinal cord the voluntary motion is abolished under the level of the section ipsilaterally and the perception of the pain and temperature is lost in the body and limbs contralaterally.

Galen noticed that in cases of hemiplegia, associated with ipsilateral facial palsy the lesion is located in the brain. In the contrary in cases of hemiplegia without involvement of the cranial nerves the lesion is in the spinal cord. He underlined that disorders of cognition and psychiatric phenomena are due to brain’s dysfunction.

In cases of traumatic lesions of the brain Galen applied trepanation for draining the intracranial hematomas and decreasing the intracranial pressure. For the trepanation Galen used the “crown trephine” (φοινικίδαν) for removing bone and the “drill trepan” (τρύπανον) for making perforations in the skull. He applied also trepanation for the treatment of hydrocephalus in childhood. Galen studied hydrocephalus extensively and described three kinds of it, one between the brain and the meninges, one between the meninges and the skull and one between the skull and the skin.

Galen thought that the anterior part of the brain is the seat of perception, volition, memory and reason, neuroscientists, who after the application and use of microscope in histology by Benedict Stilling (1810-1879), contributed greatly in the study of the structure of the spinal cord.

The syndrome of the semisection of the spinal cord is named after Charles-Édouard Brown-Séquard, who described it in workers with traumatic lesions of the spinal cord in 1850. C.-É. Brown-Séquard: De la transmission croisée des impressions sensitives par la moelle épinière. Comptes rendus de la Société de biologie, (1850)1851, 2: 33-44.


Mariani-Constantini R, Catalano P, di Gennaro F, di Tota
though the posterior part, which is more solid than the anterior, plays an important role in the life and the vegetative functions of the man. He claimed also that defective perception and reasoning may provoke delusions and hallucinations.

Health is the result of the homeostatic equilibrium of the psychosomatic entity of the human being. Disease is the opposite of health. Health is based on the harmonious natural balance of hot, cold, wet and dry, the physical qualities, which are associated with the blood, the yellow bile, the black bile and the phlegm. Small deviations from the homeostatic equilibrium may not be diseases. There is an individual disposition (diathesis, διάθεσις) that is responsible for the health or illness of a person, which may play an important role in the morbidity.

A central concept of Galen’s psychology is the tripartite division of the soul, each of the parts being located in a different part of the body. The rational faculty of the soul is located in the brain, the spiritual in the heart and the desiderative one in the liver. The psychic spirit (pneuma) according to Galen resides in the ventricles of the brain. The brain is responsible for the perception, the cognition and the memory. The mental and physical health of the human being is based on the equilibrium and the harmonious relationship between the three parts of the soul. Any disarrangement of that balance may provoke mental disorder or any other psychological disturbance with various phenomenology.

The treatment is based on the restoration of the harmony between soul’s parts. The soul should become again according to the nature (κατά φύσιν). The clinical phenomena of the disease are of substantial importance for the choice of the proper therapeutic method.

From the mental disorder of particular importance are phrenitis, delirium (παραφροσύνη), paraphrenia, mania, melancholy, coma, carus (κάρος), lethargus, catalepsis, epilepsy, which are conditions affecting the “hegemonicon” and disturbing the soul-body relationship.

Dementia according to Galen consist of decline in memory, judgment and learning, and it is a disorder of the “hegemonicon”. Dementia may exists in melancholy, which in that case is reversible. Memory disturbances may coexist with affections of reason. Loss of memory and reason appears in lethargy and karos. Loss of memory and reason and loss of understanding (σύνεσις) appear in a disease that Galen calls morosis (μωρωσίς). In cases of morosis the physician cannot find any special clinical sign in the affected place.

Phrenitis is a psychic disorder accompanied by an acute fever, affecting the hegemonikon. A diagnostic feature of phrenitis is that the delirium persists after the fever declines. Other symptoms of phrenitis are insomnia, visual hallucinations, crocydismus and carphologia, rapid breathing, weak pulse, drying of the eyes.

The high fever differentiates phrenitis from mania and agitated melancholy, which may have also a continuous delirium.
On the passions of the soul

Galen claimed that in addition to mental diseases there are other conditions, which are the consequences of passions and errors of the man. He said that errors arise from a false opinion, and passions from the irrational power. The man by the spiritual culture and wisdom may recognize the special value of the self-knowledge and self-control and may also recognize his errors and passions. If a man wishes to have a knowledge of his inner self, he must work very hard to obtain it.

It is very important for the man to free himself from his passions. For the liberation of man from passions and errors is indispensable to recognize them sincerely and to eradicate them. A man must remind himself of his passions and his decision to fight against them each day. A man must also liberate himself of carnal desires, excessive curiosity, and envy. The man must learn how to judge himself and to lead a life of better self-discipline every day. The road to temperance is through self-discipline. Any disease of the soul and any passion must be eradicated promptly before it would become strong and incurable. It is essential to remove the roots of the passions from the souls completely. A young man must ask the help and support of an expert and responsible person, who would direct him to the truth.

Among the first and greatest errors is the one which derives from self-love or ambition. A man who loves himself with a true love and wishes to become a good, honest and noble person must recognize and treat that errors promptly.

According to Galen the path to the truth is not long and laborious, but is a rather short and strait. Intense emotional involvement may cause deviation from the truth. In order to follow the way of the truth, the man has to keep the interior peace, which is the result of wisdom and spiritual culture. The man should liberate himself from fear and desires in order to be able to approach the truth.

The domination over the passions is possible through reason and continuous training. For each human being needs almost a lifetime of continuous training to become a perfect man. The man should become just, temperate, courageous, psychologically strong, hopeful and merciful in order to be able to eradicate his passions completely. Galen claims that the culture of the soul starts from the forgiveness of the errors of others, the fight against anger and fear and the rational thinking, since reason is the most precious gift to human being.

The psychopathologic analysis of the passions by Galen has many similarities with the approaches of the modern psychopathology. However Galen’s psychotherapeutic technique associates philosophy and medicine harmoniously. Galen combined Platonic, Aristotelian, Pythagorean and Stoic methods in order to approach the etiopathology of the passions and analyze the main causative factors and motivations. He attempted by his methodology to uncover any concealed passion in order to help the man to eradicate it completely and to obtain his interior peace and psychological stability.
References


De Lacy P. Galen and the Greek Poets. In: Greek, Roman and Byzantine Studies 1966;7: 259–266.


Harris W V. Mental Disorders in the Classical World, Leiden, Boston,2013.


Veith I. Galen, the first medical autobiographer. Modern Medicine, 1959; 27, 232-345.