FUSION OF ANCIENT PHILOSOPHY AND ART OF MEDICAL SCIENCE IN THE MAKING OF BASICS OF MEDICAL ETHICS

Kozlova OV, Khristenko DN ✉

Yaroslavl State Medical University, Yaroslavl, Russia

In the modern world, a human being comes across the double absolute priority given to the values of medical ethics. On the one hand, moral ideals are metaphysical by nature. On the other hand, a human being treats ethical standards of medical ethics pragmatically. In this aspect, the key players of the ancient world who developed the metaphysical basics of medical ethics were especially important. The study is aimed at determining the contribution of ancient thinkers into development of fundamental basics of medical ethics. The works of ancient thinkers were taken as materials for the study. The study methods are represented by system analysis, dialectic method, phenomenological and hermeneutical approaches that enable to interpret the ideas of thinkers in relation to creating the basics of medical ethics. It has been established during the study that thinking based on the integration of rational, empirical and metaphysical principles has been developed in the ancient world. Metaphysical provisions of Plato and Aristotle manifested through the works of Galen make it is possible to conclude on eclectic philosophical views of Claudius Galen. Eclecticism is not just about plain borrowing of ideas, but about new fusion of physics, logics, and metaphysics in relation to understanding human health and disease. It can be stated that the first stage of nature cognition (natural philosophy) is the most important stage of developing sense-making basics of medical ethics. This period turns into a starting point for the emerging basics of fused humanitarian and natural science-based knowledge and formation of medical ethics principles.

Key words: metaphysics, medical ethics, culture, natural science, humanitarian sciences, medicine, culturological values, civilization, humanism

✉ **Correspondence should be addressed:** Dmitry N. Khristenko
ul. Revolutsionnaya, 5, Yaroslavl region, Yaroslavl, 150000, Russia; khristenko1903@mail.ru

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СИНТЕЗ АНТИЧНОЙ ФИЛОСОФИИ И ВРАЧЕБНОГО ИСКУССТВА В ПРОЦЕССЕ СТАНОВЛЕНИЯ ОСНОВ МЕДИЦИНСКОЙ ЭТИКИ

О. В. Козлова, Д. Н. Христенко ✉

Ярославский государственный медицинский университет, Ярославль, Россия

В современных условиях человек сталкивается с двойной абсолютизацией ценностей медицинской этики. С одной стороны, моральные идеалы носят метафизический характер. С другой — этические нормы медицинской этики предстают перед человеком в прагматическом смысле. В этом плане представляется особенно важным рассмотрение ключевых фигур античности, предпринявших формирование метафизических основ медицинской этики. Цель исследования — определение вклада мыслителей античности в развитие фундаментальных основ медицинской этики. Материалом для исследования послужили работы мыслителей античности. Методами исследования являются системный анализ, диалектический метод, феноменологический и герменевтический подходы, позволяющие интерпретировать идеи мыслителей применительно к созданию основ медицинской этики. В результате исследования установлено, что именно в античности формировалось мышление, основанное на интеграции рациональных, эмпирических и метафизических принципов. Метафизические положения Платона и Аристотеля, проявившиеся у Галена, позволяют сделать вывод об эклектичности философских взглядов Клавдия Галена. Но эта эклектичность есть не простое заимствование идей, а новый синтез физики, логики, метафизики применительно к пониманию здоровья и болезни человека. Можно установить, что первая стадия познания природы — натурфилософия — является важнейшей фазой формирования смыслообразующих основ медицинской этики. Именно этот период становится отправной точкой для наметившихся основ синтеза гуманитарного и естественно-научного знания, а также формирования принципов медицинской этики.

Ключевые слова: метафизика, медицинская этика, культура, естествознание, гуманитарные науки, медицина, культурологические ценности, цивилизация, гуманизм

✉ **Для корреспонденции:** Дмитрий Николаевич Христенко
Революционная ул., д. 5, Ярославская область, г. Ярославль, 150000, Россия; khristenko1903@mail.ru

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In the modern world, a human being comes across the double absolute priority given to the values of medical ethics. On the one hand, moral ideals are metaphysical. On the other hand, a human being treats ethical standards of medical ethics pragmatically, as certain guarantors of happy existence. Meanwhile, in the system of natural science, a modern person prioritizes pragmatic values.

Steady growth of scientific and technical problems in the modern society results in reconsideration of the entire system of natural science. General scientific reflection is necessary. Natural science is gradually becoming a center that integrates all aspects of reality. In this regard, it is especially important to deal with the key personality of early natural science development history represented by a thinker, doctor and philosopher Claudius Galen.

When Galen's art of medical science was developing, the Roman epoch was characterized by overlapping of two polar concepts. They included the materialistic understanding of nature and humans, and the idealistic approach based on mysticism and mythological world view leftovers. Many scientists failed to avoid the duality. However, Claudius Galen can serve as an example of creative overcoming the duality through breaking the tendencies in his art.

It should be noted that D. A. Balalykin, editor of Galen's works, made a significant contribution into the study of the philosopher's artistic legacy. He wrote commentary to Galen's collected works, and a number of works on history of medicine [1, 2]. He considers various approaches to different directions of a medical thought to treatment practice [2].

During this period, naturalistic tendencies in medicine prevailed. N. P. Shock mentioned that the search for cause-and-effect relations produced in the course of treatment was done by Galen based on his knowledge of math, logics and astronomy [3]. Medieval perception of 'Divine Galen' has survived to the present day. There is no doubt that Galen's contemporaries admired the creative genius of Galen. Marcus Aurelius, under whose reign an important part of Galen's creativity was implemented, couldn't help noticing the philosopher's merits and contribution to medicine. In his twelfth book 'Alone to Myself' Marcus Aurelius, who was impressed by Galen's ideas, wrote as follows: 'Think of the condition of your body and soul when death comes, of life brevity, yawning abyss of eternity behind and in front of you, powerlessness of material things' [4, p. 801]. Here he speculates over the ratio of materialistic and ideal fundamentals. It is the duality typical of Galen.

The thesis can mean nothing to a modern human, as pragmatic values of modern medical ethics exclude the possibility of thinking about metaphysical issues of eternity, death and impossibility to withstand the thinking categories. The individual practically assumes that thinking can distinguish between the world properties that depend on the attitude to reality, and the world to one's self that continues its existence irrespective of an observer.

Marcus Tullius Cicero, being a follower of Plato, reflected an interaction of idealistic and materialistic tendencies in his creative work. In his book 'On Obligations' he writes as follows: '… if we treat nature as a supervisor, we'll never make an error and will follow the beginning which is delicate and distinctive by nature, and the beginning that corresponds to the requirements of a human society…' [4, p. 287]. Cicero developed an idea of subjugation of all passions and aspiration by reason. It is a cognitive ability that makes humans different from animals.

The opinion is controversial. When a human thinks of a property that belongs to the entire world, an individual enters the endless circle of reasoning. A human thinks of a certain world property as an act of thinking. Thus, the values of medical ethics can be only imaginable. Their implementation in the world depends on a human will only. The transcendental nature of values of medical ethics is essentially denied here.

Claudius Galen was familiar with Plato's works, attached much significance to Aristotle's works, valued the merits of Stoic and Epicurean. He started studying philosophy when he was 14 years old, and referred to medicine at the age of 17. He visited many cities such as Alexandria, Athene, Corinth and Smyrna to improve his knowledge. The thinker examined the works by Aristotle and found many interesting data there. It's the logics by Aristotle that was fundamental when Galen's method was developed. A. P. Shcheglov determines Galen's method and calls it reduction of theoretical and logical assumptions to practical acts. He mentions an essential value of Aristotle's works in formation of Galen's method [5].

In this regard, it is necessary to point at falseness of the thesis. Aristotle mentioned that medical treatment must rest upon metaphysical entities. The main thing for Aristotle is to know the reason for the disease. This is followed by empirical experience. Thus, according to Aristotle, a doctor's wisdom means to know the patterns of metaphysical reality, which includes understanding not only the reasons for a disease, but also ethical values, which are mandatory for doctors. He noticed that sciences about 'something ideological' are beyond the arts of creation. Aristotle shows the priority of ethical values in the art of medical science, their metaphysical nature.

Galen had been improving his skills for a long time, treating gladiators. Only in 164 Galen moved to Rome, where he served Marcus Aurelius. Galen didn't only improve his medical practice, but also submerged deep into research activities, performed an autopsy on animals, delivered lectures. During that time, Galen examined physiology of animals and tried to use the obtained knowledge when studying the structure of human organs.

Historically, Hippocrates was Galen's idol. Galen took a diseased condition of a human within Hippocrates' theory of the four humors. That's why regular mixing of humors such as blood, phlegm, yellow bile, and black bile (isonomia) preserves balance and corresponds to the term of 'health'. However, prevalence of one of the humors (monarhia) is the reason for the disease. Galen estimated the disease in a materialistic way and was rational to some extent. According to his ideas, a disease is a special state of an organism with the disturbed functioning of separate organs and parts of the body. We see a lack of mysticism typical of the ancient epoch, when people believed that diseases were sent by gods. According to Galen, diseases occurred due to heat excess or plentiful supply or shortage of food. The factors were definitely of materialistic nature and could disturb the functioning of certain organs. Galen initiated the study of disease symptoms based on the union of external and internal factors that influence health. Thus, he stressed the significance of medicines and diet when justifying his own clinical method.

Similar thoughts can be found in Hippocrates' 'On the Sacred Disease'. He wrote as follows: '… if all this used as clothes and taken as food results in the birth and spread of a disease, and if a disease can be avoided with the help of dietary restraint, it's not a god or religious purification that are the helping reasons; but what is eaten can cure or do harm, whereas god's influence has nothing to do with it' [6, p. 209].

However, we can see that discovery of symptoms as principal medical categories makes transition to metaphysical entities obvious in Galen's work. Both Hippocrates, and Galen tried to understand the basics of medical ethics, excluding the figure of God. Thus, God has no power to heal a person. The healing problem is interpreted as the problem when a human achieves harmony with himself (metaphysical basis) and as a benefit of a healthy human to the society (pragmatic basis). Metaphysical basis was of the highest priority during formation and development of medical ethics.

When creating his method, Galen was under the influence of Anaximenes. Galen used the doctrine of air that can get condensed resulting in formation of clouds, water, snow and ice, and transferred this to a human body. That's why dry and warm are opposed to humid and cold. Though being primitive, the dialectics of the polarities was borrowed from Heraclites. Hippocrates' thesis stating that 'opposites are cured by opposites' made sense in Galen's practice as well.

Study of anatomy helped Galen introduce significant changes into the ideas of a human body. He denied existence of 'pneuma' in human arteries, as they were filled with blood. Lucretius wrote about blood in the arteries in his poem 'On the Nature of Things'.

> 'It is clearly stated where something should be and where it should be developed.
> So the soul by nature cannot exist alone without body and apart from muscles and blood' [4, p. 83].

In his book 'Tusculan Disputations', Cicero echoed Lucretius about the bond/differences between the body and the soul. He stated that a healthy soul could 'be influenced by the body, but not by the disease' [7, p. 328]. Cicero concluded that a disease was not always the fault of a body, but when the soul suffered, it was to be blamed. Thus, moral basis must be primarily understood concerning the landmarks of human existence, that can be provided by medical ethics.

Galen considered that pneuma moved not through the arteries (according to previous thinkers), but through the veins. Galen treated pneuma in a different way. He differentiated between the following types of pneuma: spiritual for the brain (Spiritus animalis); vital for the heart (Spiritus vitalis); and natural for the liver (Spiritus naturalis).

Galen had liver for the main as compared with the soul: 'As the craving part of the soul is embraced in the liver, which is the third internal organ, a human who intends to create a perfect order in his soul must have a symmetry of inherent movements' [8, p. 351]. Galen stresses the priority of metaphysical cognition over the sensual experience, as the liver is responsible for sufferings of an individual in this empirical world.

Three types of pneuma correspond to three origins of a human soul described in Plato's Republic. The three parts of the soul are the rational, spirited and appetitive parts. The third one is called 'appetitive because of unusual lust for food, drinking, and romantic episodes…' [9, p. 383]. In this respect, Galen's spiritual pneuma corresponds to cognition of metaphysical entities, i. e. moral basis, which is similar to Plato's rational beginning. The spirited pneuma is similar to Plato's second beginning. The life pneuma is the same as Plato's appetitive soul part. Thus, we see than Galen, just like Plato, prioritizes the value of metaphysical basis in formation of medical ethics.

By developing the doctrine of pneuma, Galen was influenced by Aristotle. Galen believed that a human birth was associated with 'the rational pneuma'. Air, breathed in by a human, touches it and carries the 'primary pneuma'. According to Galen, the heart was an organ that processed air: 'Heartbeat and concentration of the entire soul in this place belongs to an evident sign of fear' [8, p. 361]. Galen believed that the process resulted in formation of a new, 'animal pneuma' that controlled all the physiological processes of the body. Aristotle defined the process as 'blood boiling or heat near the heart' [10, p. 36]. Aristotle also noted that the reasons for the phenomena deserved cognition, as it were the consequences that were comprehended based on the reasons but not vice versa. According to Aristotle, the science that comprehended a purpose, this or that advantage, was the principal one. The idea of an advantage substantiated by ethical standards was the basics for medical ethics. In his opinion, the science was truly free, as it existed for itself. Thus, possession of medical ethics was put by Aristotle higher than human possibilities.

I. V. Prolygina states that Galen's medical knowledge can be characterized as fusion of empirical knowledge and logical thoughts resulting from Euclidian postulates and Aristotle's syllogisms [11].

It is true that Galen's pneuma doctrine can be characterized as some outbreak in understanding of physiological processes even in comparison with Aristotle's concept. Galen stressed the value of the brain, whereas Aristotle mentioned 'the soul movements only'. Galen considered a pneuma movement in the brain, stating that in the brain, pneuma was becoming even thinner turning into mental pneuma. According to Galen, pneuma was running through the nerves and brought impulses from the brain to the body periphery and back. In On the Soul tractate, Aristotle wrote as follows: 'when the surrounding air compresses bodies and displaces atoms that make living creatures move, because they are never still, protection occurs, other atoms that prevent liberation of atoms inside the living creatures enter the body from the outside… and living creatures stay alive until they are capable of it' [10, p. 40–41]. But these processes seem useless if a person stops believing in 'non-measurable'. In the end, Aristotle calls for 'the best', i. e. awareness of the form of the good. That's why the thinker states that the science that can be possessed by God is divine. According to Aristotle, all sciences including medicine are more necessary for people, but there is no science better than ethics.

Galen describes the nervous system functioning in a more rational way than Aristotle. However, Galen considers physiological processes in an idealistic way. Pneuma activity is a manifested transformation of certain spirits. Thus, Galen considers nerves as a manifestation of 'animal spirits' (Vis animalis), liver as a synthesizer of 'natural spirits' (Vis naturalis), and heart as pulsating spirits (Vis pulsitiva).

While trying to understand how the nervous system functions, Galen conducted many animal experiments. He even conducted the experiments during his public lectures. The thinker introduced many additions and changes into the experimental data that were available after Hippocrates. The level of understanding of how sensory organs function inherited by Galen can be found in the book by Diogen Laertski who writes as follows: '…they substantiate the existence of channels in sensory organs referring to the flow of objects; though the objects can be substantiated only when there are channels in sensory organs' [12, p. 461].

Diogen Laertski differentiates between two criteria of truth. The first criterion makes a decision. According to the thinker, this is the leading beginning of the soul. The second criterion means a clear and exact image used to make a decision. If a person rests upon images only, he will fail, as the images have no metaphysical basis and can be perceived by different people in a different way. A person who makes a decision should have a basic understanding of eternal and everlasting entities. Thus, we see how the rational basis of existence is transformed into metaphysical entities. The basics of medical ethics are formed using not a rational, but metaphysical basis.

Galen thoroughly examined muscular innervation by cutting the nerves reaching the glossopharyngeal muscles, extremities, facial muscles, diaphragm, intercostal muscles, etc. In this respect, Galen concludes that the motor ability directly depends on muscular tissue innervation. Demonstrating neutralization of nerves resulting in termination of sensation belonged to the most entertaining Galen's experiment. That was a sight of those times: for instance, experimental animals lost their voice: '…in neurotomy or ligature of all the mentioned nerves an animal is deprived of a voice, but breathes easily… it moves all the four extremities, can hear and see, preserving the entire depth of feelings' [8, p. 274]. These experiments made it possible for Galen to conclude that the nerves can be divided into three groups considering their functions. The first group included the nerves responsible for perception as they control the sensory organs. The second group included the nerves responsible for muscular activity. The nerves that regulated the functioning of internal organs belonged to the third group.

Thus, Galen's concept had not obvious hints, traits, and sketchy data enabling to see the basis that helped create a good theory of how the central nervous system is functioning, even in spite of the primitive development.

It is important to notice that Galen was the first of those who established an interaction between sensations and nervous activity. He found some areas in the brain which were

responsible for manifestations of thinking and sensations. Galen paid much attention to examination of the brain activity. He suggested that thinking was associated with the brain activity: 'the reasonable beginning from where nerves come are located in the brain' [8, p. 363]. S. Ya. Chikin notes that Galen destructs 'the myth of Aristotle', who believed that the brain cooled the warmth [13, p. 44]. However, in Metaphysics, Aristotle says that '…the mind is thinking independently as the subject of the thought was involved: it becomes the subject of the thought adhering to it and thinking that the mind and the subject are the same' [14, p. 364].

The fundamental conclusion about the thought and reality identity made by Aristotle makes us believe that a human being has such virtues as ethical values. According to Aristotle, medicine is becoming a creative science. Medical ethics is becoming fundamental here: 'good and beautiful are not the same (the first is always about the deed, whereas something beautiful is immobile)… [14, p. 389]. That's why medical ethics is becoming a dynamic science, as a doctor's acts must always correspond to the idea of the good, and formation of ethical standards is always the process of human development and perfection.

Claudius Galen considered, described and seriously examined various organs, systems, extremities of animals, and always compared the obtained data with the human body functioning. He stressed the importance of animal experiments: 'those saying that nerves are coming from the heart can say that and write about that just like they say and write about many other things; but they can't prove it during animal experiments' [8, p. 363]. Hence, we can conclude that Galen was not just an experimenter but also a theorist of medicine. This epoch lacked reasonable explanations of physiological phenomena, especially when it was attempted to confirm the conclusions in a practical way.

Galen tries to neutralize the contradiction between considering medicine as an art and understanding medicine as scientific work. Galen definitely treated medicine as science not forgetting Hippocrates reverence for the art of a doctor. A combination of these competing tendencies proves once again that there is a presence of combined rationalism and humanism in Galen's conception. 'A physician who is also a philosopher is similar to God' — the aphorism helps understand the reasons for Galen's creative work enormous success. In spite of Claudius Galen's inconsistent philosophy, his views point at materialistic tendencies in his creative work. Galen understood the complexity of medical knowledge development and progression, and advocated for introducing philosophy into medicine with medical ethics playing a leading role. The fundamentals of ethics enable a doctor to rise above the 'creeping' empirical practice and comprehend the reasons for diseases.

At the same time, Galen substantiated the use of empirical research methods. Observation was one of the most important methods. Empirical methods of treatment such as diet, gymnastics, bath, and massage are integrated into the humanistic concept of health and disease. A physician and a philosopher can't develop and comprehend the purposes and tasks of medical cognition without taking the methods into account.

First and foremost, Galen valued the statement of reasons as far as logical methods go. The method by Aristotle such as movement of a thought by analogy 'from alike to alike' was especially close to Galen. In Metaphysics, Aristotle wrote as follows: 'things are related when… what can make things hot is related to what can become hot, what can cut is related to what is cut… what is measurable is related to the measure, what is experienced is related to experience and what is conveyed by our senses is related to sensory perception' [14, p. 153].

Galen thoroughly examined Aristotle's philosophy. It's Aristotle's teleology that formed the basis of Galen's idea of expedient creations of nature. This allowed to formulate the fifth, i. e. 'instrumental' reason. It is notable that the statement by Aristotle 'nature does nothing in vain and misses nothing necessary' [10, p. 213] occupies a central position when developing Galen's scientific concept. This results in the following central conclusion: 'everything created by nature is excellent'. Thus, according to Galen, the divine idea of beauty is an initial point of considerations about goodness, whereas ethical standards belong to an indisputable condition of worthy curing.

The idea of beauty occupies one of the central ideas in Plato's philosophy. It allows to assume that Galen's gnoseology is formed based on Plato's idealism. In Feast, Plato considers the idea of beauty as a source of knowledge. Plato takes the idea as the basis for cognition of truth: '…only he alone, who was contemplating beauty… could give birth not the images of virtue, as he would not touch an image, but something true, as he would touch the truth' [15, p. 345]. Plato substantiates the true form of the good as the main idea that is crowning the entire pantheon of ideas. That's why ethical standards acquire a metaphysical character, even in Plato.

Plato's and Aristotle's metaphysical provisions manifested through Galen allow for the conclusion about Galen's eclectic philosophical views. But the eclecticism is not a plain borrowing of ideas, but a new fusion of physics, logics, metaphysics concerning understanding of human health and disease.

Galen's gnoseology absorbed integrative tendencies. The idea of spirituality of all living creatures is one tendency. The other tendency considers internal and external material reasons that influence health: '…all… diseases occur due to external reasons or reasons inside the body' [16, p. 663]. Galen's similar positions can seem contradicting. However, the contradiction is removed when a person is examined. On the one hand, the thinker criticizes representatives of 'creeping empirism' who rejected the purpose and divine participation in human creation. On the other hand, he disproves the opinion that creation of every body part pursues a certain purpose. Galen concludes that the mind was the reason why a human being mastered many arts. He wrote that a human being is the wisest of all living creatures, because he/she has hands. Due to similar ideas, Galen can be defined as Darwinism predecessor.

Claudius Galen surpassed all his contemporaries with the depth of a thought because he was able to establish the causal relation between the phenomena and detect the basis of functioning of all sides of reality. He established a connection between the structure of organs and their functions, and dependence between the body and a view of life. That's why Galen can be recognized as one of the first thinkers who was looking for and managed to find the rationale for integration of science and humanitarian knowledge.

Thus, it's necessary to point out Galen's ability for fusion of the knowledge obtained, his ability to summarize the experimental data, carry out philosophical analysis of medical problems and their integration into the general concept of human health. That's why the concept of Galen, and many other ancient philosophers, can serve as a starting point of setting the basics of medical ethics.

'A real doctor is always a philosopher' [17, p. 106]. This is the testament left by Galen to his descendants. It's the philosopher who can find the general foundation that allows to systematize all studied phenomena, formulate laws used to

create abnormal phenomena. Galen's classification of diseases is based on understanding of an anatomical substrate such as tissues, organs, elementary humors. In this respect, health absolute priority as the basic value in a human life characterizes Galen as a person of high moral character. In theory of medicine, the thinker overemphasized the notion of a standard, and considered an abnormality as a temporary phenomenon. Galen brought the notion of a standard under control of ethical principles. Achievement of happiness by a human being is the basis that can be the true foundation of medical ethics.

When analyzing the principal symptoms, a doctor's thinking must be based on examination of a healthy body, anatomy and physiology. Galen tried to integrate the notion of a healthy person and healthy way of life into the system of a doctor's world view: 'the leading principle states that principle and minor properties of any internal organ must be taken as the starting point…' [8, p. 362].

Thus, Galen's career was so outstanding and fruitful that it determined the basics of medical world view until the Renaissance. He created the system of healing uniting anatomy, prevention of diseases and therapy. Galen is traditionally characterized as a creator of scientific medicine. The feature is refracted through metaphysical elements of creation of medical ethics. Galen's scientific world view is impossible without taking into account empirism, and metaphysics enriched with the principles of rationality.

It is true that the world view, based on the unity of empirical, rational and metaphysical principles, was defined as 'educational knowledge' by M. Sheller. In Forms of Knowledge and Education, Sheller wrote that 'the educational knowledge is insight acquired on one or several good, precise samples and included into the system of knowledge; the insight became a form and rules of gripping the categories of all accidental facts of the future experience with the same essence' [18, p. 87].

Determining the utmost limits of science and technology development was called 'savage thinking' by Paul Ricceur. In his idea, it was a strive for final systematization of knowledge, resulting in the choice between different ways of understanding the reality [19]. According to Ricceur, this would be absurd. He shows that 'an idea about a value of any method can't be taken separately from understanding the borders' [19, p. 43]. The borders are increasingly associated with the issue of developing 'an ecological production' related to reproduction of nature and the entire environment.

It is relevant to remember V. I. Vernadky's words which can be considered as a testament of the thinker to younger generations: 'Alive, bold and young spirit embraced the scientific thinking. The modern scientific world view is shaking, destructing and changing under its influence. Unexpected horizons are opening far away in front. An intense burst of human creativity is currently striving for them' [20, p. 415].

Thus, C. Galen outpaced its epoch due the level of his world view. He built scientific thinking based on the integration of rational, empirical and metaphysical principles. His activity anticipated many discoveries in the area of medicine of the Renaissance.

Considering this excurse into history of medicine, it can be established that the first stage of nature perception (natural philosophy) is very important to understand the sense-making basics of medical ethics. Though only the methods of observation prevailed here, experimental methods were not introduced into the research, and many conclusions were primarily based on assumptions, intuitive insights, it can be concluded that the period becomes a starting point for the emergent basis of fusion of humanitarian and scientific knowledge, and development of the basics of medical ethics.

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