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Religious paradigms of medieval medicine

One of the longest periods in the history of medicine is the period of medieval medicine, which lasted over a thousand years (476–1517). When analyzing this period, it is striking, on the one hand, the virtually complete lack of continuity with ancient medicine, the achievements of which were almost completely lost, and on the other hand, almost complete statics in the development of medical science throughout the entire medieval period [13; 18]. At the same time, in the medieval era, an inexplicable, at first glance, mixing of medical concepts with frankly occult, magical rites and actions was noted, and the universities of that time more resembled not temples of knowledge, but temples of superstitions dressed in doctoral robes, although, and this is especially noteworthy, the countries of Europe at that time professed Christianity [9; 23, vol. 4]. In historiography, a lot of excellent research has been carried out on various issues of medieval medicine, but it has not been completely possible to explain this main phenomenon — it's almost complete statics, subordination to superstitious and magical ideas against the general background of the dominant Christian religion [9; 12]. In our opinion, this is explained, first of all, by the diminishing of the role and importance of religious and philosophical ideas in the development of society, and, on the other hand, by the actual consideration of the history of medicine in the Middle Ages in isolation from the history of the Middle Ages itself.

Given the above, **the purpose of our study** was to study the role and place of religious and philosophical ideas in the history and formation of medieval Western European medicine. Before proceeding to the consideration of the influence of religious beliefs of the Middle Ages on the development of medical science and practice, we note the main characteristics and features of the state of medicine in medieval Europe.

Medical portrait of a medieval city

Lack of sewerage and water supply system. Unlike the cities of the ancient world, which had excellent

water supply and sewerage systems that covered almost the entire city, cities in the Middle Ages, including the capitals of states, did not have these systems at all. Rarely houses in the yards had wells and therefore people most often went to the city fountain for water [25, p. 45]. The first water pipelines began to be built in Europe only in the 15th century, that is only a thousand years after the collapse of the ancient world [12; 21]. Moreover, «latrines were not in every house. Dirty water and solid waste were poured into special sewage pits, which were emptied from time to time» [25, p. 45]. Therefore, sewage was usually thrown directly into the street. The first gutters appear only in the XIV–XV centuries, and even then only in large cities [25, p. 53–54].

Unsanitary conditions of the streets of a medieval city. Not only did the medieval city lack a sewerage system, but there was virtually no garbage collection at all. Moreover, there were no elementary tanks for its collection, and all the slop was thrown directly onto the street, onto the sidewalk and the roadway [9, p. 12]. Or, at best, into rivers, or ditches [25, p. 53]. «The garbage cart service was organized in Paris only in the 14th century, in Amiens — in the 15th century» [25, p. 53]. Medieval chronicles have preserved for us numerous documents telling about the state of the central streets of Paris itself. One of the largest medieval cities. One of these documents describes how, in the second half of the 14th century, on St. Genevieve Street, butchers threw out the offal of animals that were slaughtered right into the street, which caused a complete stench to reign in the already dirty street. At the beginning of the 15th century, chronicles picturesquely tell that Place Maubert, one of the central intersections of medieval Paris, was literally littered with garbage! [21, p.47–48]. At the end of the 15th century, «the inhabitants of the city of Reielingen tried to persuade the Emperor Frederick III (1440–1493) not to come to them, however, however he disobeyed and almost died in the mud along with his horse [25, p. 53]. The dirt was also added by the fact that «it happened that pigs and all kinds of livestock roamed

the streets» [9, p. 11]. The problem was that the streets of medieval cities were not paved. In the autumn-spring period, due to precipitation, the streets turned into real rivers of slops and fetid stagnant swamps, which served as an excellent environment for the formation of foci of infections. It is noteworthy that if the rains even «fell on some holiday, then the monks of the nearby monastery postpone the church processions scheduled in advance on the occasion of «street dirt» [9, p. 11].

In the paintings of medieval artists depicting urban life, you were probably surprised to pay attention to the strange shoes of women, and especially men: with curved toes and unnaturally long, somewhat reminiscent of ... small skis [3, v.2, p.48–49]. But if you remember that terrible unsanitary conditions that prevailed on the streets of cities, and the fact that most of the streets were not paved, and dirt, clay, mixing with slop, created literally impassable «swamps», then one should not be surprised. In such long shoes with bent toes, the townspeople did not even walk — as it was slippery, and one could easily fall — but glided through impassable mud [9, p. 11–12]. The paving of the streets of the first streets for the first time in Europe takes place in Paris at the end of the 12th century, and in Prague only in 1331, and in German cities, mainly, the first paved streets appeared only by the beginning of the 15th century [25, p. 53]. At the same time, it was an obligation for every citizen to pave the street in front of his house [25, p. 53].

Dry toilet system. The system of so-called dry toilets, located in small hinged towers of houses, was extremely unsightly in the medieval city, and feces fell directly into the street, onto the heads of walking passers-by. True, rich houses were equipped with special bells that warned passers-by about the release of the next batch of feces into the street. All this led not only to the lack of an aesthetic appearance of the streets, but also contributed to the development of epidemics and their maintenance.

Unsanitary conditions of a medieval house. Medieval houses were built without any regard for elementary hygiene standards, when, due to narrow and crooked streets, small narrow windows, sunlight practically did not enter either the streets or the houses [25, p. 88]. The overhanging second floors of the houses generally created twilight on the streets even on a clear sunny day. This contributed to a decrease in natural immunity, the development of rickets and eye diseases. In a medieval house, due to the lack of a water supply system, not only were there no baths, but the cleaning of the house itself, in which, moreover, pets often lived, was carried out extremely rarely. «During the cleaning, one should not spend too much water, because if there was no well nearby, it was necessary to send a servant for water to the river, to a public source, where she had to stand in line for a long time. However, the removal of slops and garbage gave rise to even more problems, almost insoluble for the vast majority of Parisians. The houses did not always have a latrine or a cesspool. Usually dirty water was poured into a chute that opened onto the street!» [21, p. 231]. The houses were literally teeming with insects, and first of all

with fleas [21, p. 233]. Medieval chronicles repeatedly mention the terrible unsanitary conditions not only in the houses of the townspeople, but also in royal castles! For in castles, too, «they did not bathe too often, and there were many insects in the rooms. Louis Poillon, physician and adviser to Henry II, tells of one of the representatives of Duke Hercule of Ferrara, who arrived in Fontainebleau in 1528 to negotiate the marriage of his master with Rene France. The distinguished guest could not sleep all night because of the bugs, lice, fleas and flies biting him, as well as because of the rats running around the room» [10, p.195].

Lack of basic personal hygiene. Usually we associate the concepts of the Middle Ages with the concepts of a beautiful lady and an irresistible knight. However, the reality was completely different. The fact is that the inhabitants of the Middle Ages, including the highest-ranking nobles and kings, washed ... once or twice a year! There was no question of any morning washing, brushing your teeth. Public baths, so popular in the ancient era, disappear in the Middle Ages [22, p. 79]. «The bathhouse, such a characteristic phenomenon of the Greco-Roman world, became a rarity in the Middle Ages. Public baths (such as Roman baths) were practically not used in the Western Middle Ages, at least until the 13th century, and there was no place for them in conditions when public life was sharply reduced. There were no baths in private dwellings, perhaps, only in some monasteries were built rooms for washing: for example, in the Cluniy abbey in the XI century there were a dozen wooden cells that served as wash basins» [25, p. 45]. Public baths in Europe began to be resumed in Paris at the end of the 13th century, but they were distinguished by a very low hygienic condition, as well as the fact that men bathed in them at the same time as women [25, p. 45], which had a negative impact on the level of morality of the population and the spread of infectious diseases. History has preserved for us numerous evidence that even the monks in the monasteries, places of the greatest enlightenment in the Middle Ages, not only washed just as rarely, but also punished the one who washed more often! So, «the Cistercians excommunicated those who bathed without permission (but we were talking about public baths, which had a bad reputation). The Carthusians were forbidden to bathe in rivers and ponds (that is, again, publicly, while they had water in their cells). The monks of Monte Cassino were allowed to bathe only in extreme cases, which required the permission of the general chapter! The elderly monks of the Bursfeld congregation went to the bathhouse four times a year, and the young ones twice. The monks of Girsau bathed twice a year. In other places they bathed at Christmas, Easter and Pentecost» [17, p. 136–137]. Clothes were also washed very rarely, and therefore one can only imagine what smell reigned at the balls, not to mention the houses of commoners. And, of course, the abundant use of perfume and the use of such a cosmetic product for the skin as oil, which was then applied in abundance, which was considered the standard of beauty in high society, did not solve this problem. All this served a source for numerous skin diseases, diseases of the gastrointestinal

tract and lungs. The custom of frequent change of dirty linen and the arrangement of hot baths began to enter into European life in general only during the Crusades, both to Palestine and to Spain, when its participants saw the high personal hygiene of the Arabs [8, p. 229]. «In the period of the early Middle Ages, Europeans washed their faces only with cold water, and then only occasionally, and the dress was worn until it fell into disrepair» [8, p. 229].

Poor nutrition. Medieval markets were deprived of elementary sanitary standards. And although at the entrance to the city, the imported goods were checked by representatives of the city authorities, who, for example, bad wine, bad beer, were poured onto the road, bad bread was destroyed, and they treated the breadmaker very harshly: they threw him into the river» [9, p. 24], meat, vegetables, fruits were sold on dirty stalls, and the bazaars themselves were the same dirty and stinking streets, with the only difference being that live birds and cattle were also sold at the bazaars, whose feces no one thought to clean up. If we take into account that the products were practically not washed, cooking was not always carried out properly, all this contributed to the wide spread of intestinal diseases, and, first of all, dysentery [13, p. 223]. The quality of the goods sold in the Middle Ages and medieval ideas about its quality is evidenced by at least the fact that until the 13th century, to improve the quality of beer, it was customary to put a rope of a hanged man in barrels to improve the quality of beer.

Epidemics. Epidemics were the real and practically constant scourge of the medieval city. Lack of sewerage, poor sanitation of streets and houses, poor nutrition, the absence, as we will see below, of even elementary methods of combating epidemics, the presence of a huge number of dogs and rats in medieval cities that served as carriers of infections, non-observance of personal hygiene rules, a high concentration of the peasant population on a limited territory, the large crowding of soldiers in the camp, coupled with unsanitary living conditions, led to very frequent epidemics of cholera, dysentery and plague [22, p. 73]. Two epidemics of the plague went down in history in particular. The first, so-called Justinian plague, which took place during the reign of Justinian (527–565) in Byzantium, lasted about 100 years, claiming thousands of lives every day. The second plague epidemic that took place in the middle of the XIV century, was brought by Genoese merchants to Europe in 1347, by the way, from Kafa (modern Feodosia). The plague in Kafa appeared during the siege of the city by the troops of the Golden Horde Khan Dzhani-bek, by order of which the soldiers who died of the plague were catapults thrown into Kafu. This had led to the death of approximately one third of the entire population of Europe! [9; 13, p. 226]. Each epidemic claimed thousands and thousands of lives, the population of Europe was significantly reduced. People were in despair: whole families were dying, this was especially alarming for noble people — it was necessary to continue their family. An interesting way out of the situation was found by the cunning fashion designers of that time with the support of the female population. The

Western Church state strictly monitored the appearance of the ladies and severely punished for the slightest liberties in clothing. It was necessary to wear long sleeves, hide not only the chest, but also the neck — hence the fashion for pleated collars to the chin. The only thing that could not be hidden was the face. And it was believed that the face is most like ... the chest. Hence the fashionable hairstyles of that time: eyebrows were completely shaved (remember Leonardo da Vinci's Mona Lisa), the hair on the head near the forehead was also shaved — (hence the unnaturally large sloping foreheads). Here is the similarity with the chest! We can observe all this in the paintings of Western European artists of the Middle Ages. Also a fashion ... on pregnancy. Pillows were placed under the lush dresses at the waist. With all her appearance, the lady seemed to say: «Pay attention to me! I can get pregnant! I can bring offspring and continue your lineage!

Child mortality. The Middle Ages is an era of an unprecedented increase in infant mortality. The terrible unsanitary conditions of medieval cities and houses, the lack of personal hygiene of parents, the lack of hygiene when caring for a child, poor nutrition, hypovitaminosis, and lack of treatment led to a huge percentage of infant mortality or early disability of children [13, p. 226].

Alcoholism. Alcoholic drinks were consumed from a very early age, and the use of water at that time was not common, given that the food was mostly very fat and salty, one can only guess how much alcohol was consumed. For example, we note that according to medieval chronicles, drinking a liter of wine at dinner was considered moderate consumption [22, p. 67]. So, «one can only guess what scale domestic drunkenness could reach» [22, p. 68].

Genetic anomalies. The streets of the medieval city were filled with dwarfs and people with a wide variety of deformities [13, p. 225]. This was due to the long-term endogamy of village communities and the widespread of pre- and post-natal traumas [22, p. 73, 74]. Also contributed to these anomalies an early sexual life, which was common at that time. So it was accepted that «girls who have reached the age of 12, and boys aged 14–15 years were considered adults, could marry and have offspring» [22, p. 48].

Low life expectancy. The Middle Ages is characterized by the shortest average life expectancy, averaging 30 years [13, p. 224]. This was due primarily to diseases, not only of infectious origin, but also due to the use of poor-quality nutrition, excessive alcohol consumption and chronic vitamin deficiency [22, p. 73]. «The medieval diet differed from the modern one primarily in the lack of proteins (in any case, the diet of ordinary people — peasants and artisans, they ate meat relatively rarely, during the holidays), as well as sugar, which was almost unknown in Western Europe, and honey did not replace it. North of the Alps, olive oil, so common in Greece and the Middle East, was unknown. The inhabitants of medieval towns and villages compensated for the

insufficient nutritional value of food by quantity: the feeling of satiety was associated with heaviness in the stomach, when the stomach was full. Especially they consumed a lot of bread. M. Rusch (who studied diets in a number of French monasteries and secular estates) determines the daily consumption of bread by monks and secular people by the end of the early Middle Ages at 1.6–1.7 kilograms; according to the calculations of E. Ashtor, in a later period, a wealthy city dweller ate up to one kilogram of bread daily, a soldier or sailor was given up to 700–750 grams. The bread was mostly rye, of low quality. In addition, they ate a lot of porridge, beans (with garlic sauce) and occasionally cheese and fish (fresh, dried and salted), the share of vegetables and fruits in the diet was also small. Due to the small consumption of fresh vegetables, vitamins A, D, E, K, and especially C were almost absent in food; it is no coincidence that the hermits, who ate wild fruits, were distinguished by their longevity. The food lacked spiciness: spices were expensive, in ordinary food they were replaced with sauces of garlic, onions and all kinds of herbs, as well as vinegar and mustard» [25, p. 67]. Mass character carried the spread of rickets in very severe forms, poliomyelitis, glaucoma, blindness, dumbness and deafness [22, p. 73]. A huge scourge of the Middle Ages was the very frequent famines, which most negatively affected the health indicators of an individual person and the general demographic indicators of society. «Frequent hunger strikes were the scourge of medieval Europe, especially in cities dependent on food imports. Chronicles describe lean years, as disastrous as epidemics. On the eve of 1033, according to the story of the Burgundian monk, historian Raoul Glaber (985–1047), Normandy was engulfed in such a terrible famine that people ate forest roots and herbs growing along river banks, and in some places starving travelers were attacked and killed and devoured them or lured children to eat them. They went so far as to pull out corpses, and even boiled human flesh began to appear in the markets» [25, p. 70]. Such were the features of the sanitary and epidemiological state of European medieval cities, suffocating in the dusty heavy air, drowning in fetid streets, enduring the most severe epidemics, going blind in dark rooms and streets, eating poor-quality food, and all this, moreover, was illuminated by flashes of fires of the Inquisition, papal interdicts and anathemas, intimidation with the torments of hell, which directly affected the mental health of a medieval inhabitant.

At the same time, as we will see later, these features of the sanitary and epidemiological state of the cities of the Middle Ages were not an accident, they were an integral part of the dominant philosophy of that time, which we will consider below.

Methods of treatment of medieval medicine

The richest factual material accumulated to date allows us to identify the main, so to speak, methods of treatment used in medieval medicine.

Worship of the «necessary» saints. In the Middle Ages, there was a strong belief that every saint can help

strictly from the disease of one or another organ. So, to St. Agapia appeal in case of diseases of teeth, but he could not help if a person suffered, for example, from rickets. Here the help of St. Aubin was needed. But with various colic, it was necessary to turn to St. German Ossersky. At the same time, it was necessary to put the image of the diseased part of the body behind the icon of one or another saint, and healing was guaranteed. By the 13th century, the «specialization» of saints for a particular disease was strictly regulated. It is clear that temples and monasteries traded these images very widely, receiving fabulous profits [16]. Especially rich were the monasteries that had things supposedly belonging to this or that saint, or his relics [20]. At the same time, people were instilled that for healing, one simply had to touch the relics of a saint who was «effective» for a given disease, or even scrape off a stone crumb from his tombstones and eat it. In parallel with this, special prayers were developed, which were read by the priest in case of a particular disease, each word of which had its own special magical meaning. Of course, for each of these prayers read by him, he was paid separately [16; 20]. At the same time, church preachers and, first of all, the Dominicans and Franciscans in their sermons-examples clearly taught that the manifestation of disrespect for the saint and insufficient offering and worship to him can be very fraught for a person, and from the side of the saint himself [7, p. 28–28, 30, 32, 33].

Charms and amulets. The second direction of treatment, which was used in the Middle Ages, was the widest use of various amulets and mascots, in which particles of saints, grains of the holy earth, prayers to the saints were placed [19; 20; 23]. For the prevention of the disease and in general as a general amulet, it was considered necessary to wear a pectoral cross. With the help of a kind of amulets, the food served was also checked for the presence of poison in it. «Near the master's place, a low cabinet was placed in which magical objects were stored, designed to check the good quality of the dishes served: a unicorn horn (actually a narwhal), bound in gold, and the so-called langier — a stand for precious metals, placed on her «snake teeth» (apparently, these were shark teeth). It was believed that when in contact with the smallest shares of poison, the unicorn horn would begin to bleed, likewise snake teeth. That is why, before starting to eat, the owner touched the food served with magical objects « [25, p. 69].

Herbal potions. The concept of herbal medicine used today bore little resemblance to medieval herbal medicine. The fact is that in the Middle Ages, attention was paid not so much to the grass itself, as such, but to which pagan holiday (since the Christian names that replaced them did not change either the essence or the paraphernalia of the holiday) it was collected, on which time of day and with which spells. A special spell was read over each of the herbal preparations [13, p. 319]. At the same time, not only such herbs were considered miraculous, but also Easter eggs, and pancakes baked for Shrovetide.

Blood. In the Middle Ages, they believed that the blood of both animals...and humans had a special miraculous power. And therefore, in a huge percentage of medieval recipes for the treatment of a particular disease, they included blood. So with the blood of an owl, bronchial asthma was treated. Dried goat blood — kidney stones. Bat blood was used to treat diseases of the mammary glands in women. The blood of a woman released during menstruation was used to treat diseases of the joints. And bathing in the blood of small children returned, as they assured, youth (the Middle Ages knows such terrible examples, and they are far from the only character).

Dried toads and a wolf's heart. For the treatment of diseases, dried toads, wolf heart, wolf liver, mummy bones, which could be purchased in pharmacies of medieval cities, were also widely used [9, p. 36].

Minerals and stones. Medieval medicine also widely used minerals for the treatment of various diseases [24, p.143–144]. So for the treatment of carbuncles, a mixture of wine with iron rust was used. Precious metals and pearls crushed into powder were widely used [9, p. 36]. Among the stones, as medieval medicine taught, stones found in the kidneys, liver, gallbladder of slaughtered animals had a special healing features. So, for example, eye diseases were treated with crushed stones from the gallbladder of a bull. In medieval recipes, we find, for example, dragon's teeth, and earth from the grave of a hanged man, and herbs collected from graves, but only necessarily on a moonlit night. At the same time, it is worth noting that such recipes were issued by graduates of the then medical faculties of universities. Rings were also credited with special healing power. And, of course, the panacea for all diseases was attributed to the «philosopher's stone», which can not only turn any metal into gold, but also heal from all ailments and even restore youth [23, p. 144–147].

Astrology data. For a medieval doctor, astrology data were primarily interesting for making a diagnosis and choosing a method of treatment. When and at what confluence of stars the patient was born, what confluence of stars was at the beginning of his illness, how the arrangement of the stars is connected with a change in the clinic of his illness. Based on this, a diagnosis was made, and treatment was prescribed similar to what was described above. In close connection with this was the belief in the power of numbers, each of which was assigned a special meaning [13, p. 310–311]. Moreover, even the appearance of epidemics was associated, first of all, with a change in the position of the stars in the sky. So, for example, the old name of the flu — influenza, comes from Latin influence, that is permeate. It was a classic astrological term for the penetration of heavenly bodies into earthly life.

Reasons for the formation of features of medieval medicine.

What caused the fact that for a thousand years medieval cities were simply in a terrifying sanitary and

epidemiological state, why there was no personal hygiene, why medical science practically did not develop at all, being in the shackles of the grossest superstitions, magic and darkness, although there were great minds, why, then, their undertakings did not receive any continuation, and they themselves sometimes went into the same ignorance as the rest; why, finally, medicine in Europe begins to develop rapidly from the 16th century, and not in all of Europe, but in Northern Europe (Germany, England, Sweden, Denmark); why the medicine of Italy and Spain, despite the presence of excellent scientists, remains for the longest time on the positions of medieval views on the disease. By the way, it was only in Spain that the fires of the Inquisition continued to burn in the first third of the 19th century! [14; 15]. In the study of these important issues, we approach the essence what formed the basis of medieval worldview, ideas, philosophy, which controlled the minds of people for many centuries, directing and guiding all aspects of human life, namely, the medieval church. It was the teachings of the medieval state church that formed the basis of that time medicine, defining its leading concepts, forming scholasticism and, on the basis of medieval teachings and dogmas, developing the principles of hygiene and treatment. So, what church teachings shaped medieval medicine?

Medieval medicine and the teaching of the medieval church about the disease.

The medieval church associated the causes of disease with three main factors.

The first is God's punishment for sins of people. Preaching about the merciless harsh God, the church taught that for any slightest offense the Lord sends various punishments to people, and, first of all, diseases. But since the Lord is harsh and always punishes the sinner, it is impossible to turn to Him directly for forgiveness and help. For this, it is necessary that someone intercede for a person before God. And it can only be, of course, saints. But those, in turn, in order to achieve their better disposition, must be addressed with the help of priests, whose prayers the saints, supposedly, will hear faster. And in order to show reverence and respect for the church, it is necessary to make an offering to it [5;16; 20]. Thus, in order to cure a disease, it is necessary to bring gifts to the church, ask for the intercession of priests, pray to the saints and make pilgrimages to their relics, which supposedly have miraculous power. From here come the principles of treatment discussed above with the help of the relics of saints, amulets, talismans [20, v.1, p. 333–334].

The second is illness, like being possessed by evil forces. One of the darkest pages in the history of the Middle Ages is the witch hunt. «Perhaps there is no chapter in the history of mankind more repulsive than that which tells of the wild belief in witchcraft and the ruthless punishments for it in Western Europe, a century before the Reformation and beyond. In the second half of the 14th century, the church and society became terrified of witches, and the Christian world was suddenly filled with possessed people, subject to the irresistible influence

of Satan. This mania spread from Rome and Spain to Bremen and Scotland. Popes, lawyers, doctors and church leaders at all levels called for repressive measures against witches, and in the Middle Ages only victims who were tortured and died at the stake protested» [23, vol. 6, p. 327]. The leading theologian of the medieval church, Thomas Aquinas, directly wrote «about the cohabitation of people with demons as a reality, and also argued that the old women with their eyes can convey some evil influence to the young» [23, vol. 6, p. 329]. With the blessing of the pope, entire treatises have been written on the communication of people with demons and on methods for detecting this. So, in 1486, the Dominican monks-inquisitors Heinrich Institoris and Jacob Sprenger, who occupied a prominent place in the order and at the University of Kioln, based on the bull of Pope Innocent VIII, created the work «Hammer of the Witches», in which the authors reveal in detail the types of witchcraft and methods for detecting witches [23, v. 6, p. 330–332]. This book was rightly called «the most powerful tool of superstition ever created by people» [14, v.3, p. 543]. «In the title itself, *Malleus maleficarum*, the feminine word, «witch,» is used, because, according to the authors, it is women who especially gravitate to possession and to enter into relationships with demons. They even derive the word *femina*, «woman,» from *fe* and *minus*, that is, *fides minus*, «the least in faith.» They claim that tears, deceit and cunning are the very essence of female nature. A woman deceives, since she was created from the rib of Adam, and it was bent» [23, vol. 6, p. 327]. The consequence of this was that, firstly, mentally ill people were declared possessed and either burned at the stake, or subjected to imprisonment, where these unfortunate people died, or left as objects of entertainment at the courts of nobles. Secondly, many nervous diseases, accompanied by various tics, were also declared signs of possession and required the expulsion of demons from these people. Thirdly, a slightest unusual course of the disease in a woman was declared a consequence of her connection with demons, and the unfortunate woman was declared a witch to be burned at the stake. To find out the presence of obsession, they proceeded to torture with a red-hot iron, since it was believed that it was the most effective. To settle the final question of whether the woman is merely ill or possessed, the following two methods have been used most frequently. According to the first one, it was believed that if an unfortunate woman could hold a red-hot iron in her hands and walk a few steps with it, then she was not possessed [23, vol. 6, p. 333]. Another method for revealing possession was the following. A woman was thrown into the river from the bridge, and if she swam out, she was considered possessed and subject to burning, and if she drowned in the river, then it was declared that she was not possessed [14]. Due to the constant fear of reprisals perpetrated by the inquisitors, due to being in church prisons, through which a large percentage of medieval residents passed, where the inquisitors carried out their interrogations; due to constant intimidation by eternal death torments; due to long exhausting fasts, leading to nervous exhaustion,

neuropsychiatric diseases were very widespread in the Middle Ages [13, p. 225].

Thus, the very concept of disease, accepted in medieval medicine, according to the teachings of the papacy, reduced the disease to either God's punishment or possession. In both cases, no genuine medical understanding of a disease, and, consequently, the development of methods for diagnosing and treating diseases, was required in principle. Medicine was limited at its best case, as indicated above, to the preserved concepts of doctors of ancient times.

Third, the disease, as a result of the unfavorable arrangement of the stars, the evil eye, and birth curses.

Due to the fact that since the time of Emperor Constantine the Great, many pagan beliefs have entered the teachings of the Western Church [4; 16, v.1, p. 300], astrology took its prominent place in the Middle Ages. And as in pagan times, a disease began to be associated with the unfavorable arrangement of the stars and curses. Thus, for their treatment, the most real magical recipes were prescribed using dragon teeth, crushed bat wings, mold taken from burial slabs, and water taken on a moonlit night. Proceeding from this, the treatment of a disease by proper medical means was considered a serious sin, because it was obtained on the basis of the views of the medieval church that a doctor prevents the acts of God, punishing, or allowing punishment for a person. In this regard, the preface written to the *Pharmacopoeia*, compiled by an unnamed monk of the Lorsch monastery at the very end of the 8th century and containing 282 prescriptions of doctors of antiquity, is very interesting. In this preface, the monk, objecting to «those strict Christians who considered any illness a manifestation of the divine will and therefore denied any medical intervention in the plans of the Lord, he announced that treatment relieves suffering, and therefore is a real manifestation of Christian love for one's neighbor» [22, p. 78].

Medieval medicine and the teaching of the medieval church on education.

It is known, that the best way to hold people in obedience is to keep them dark and illiterate. This was well understood by the medieval state church, which was the largest feudal lord, owning about one third of all cultivated land in Europe. And therefore, in order to maintain this position of hers, on the one hand, she sowed the wildest religious superstitions in the minds of people, and on the other, she fought in every possible way against any education and enlightenment. Enlightenment has long been opposed by the clergy. It usually revolted when some city or some sovereign person founded a school» [9, p. 52]. We will not find in the entire history of mankind a darker time than the Middle Ages. As noted by the major historian of the Middle Ages, Professor Philip Schaff: «Middle Ages» and «Dark Ages» are synonymous terms» [23, v.4, p. 372]. Not only commoners, but even nobles and priests, in the overwhelming majority of cases, could not even write or read in syllables. Moreover, many priests did not even know the prayer «Our Father» [23, v.4, p. 372].

At the same time, the libraries at the monasteries, their largest repositories, numbered no more than six or twelve books in total [22, v.4, p. 373]. Universities of medieval Europe were rather not centers of knowledge, but hotbeds of superstitions. And the more the church controlled this or that university, the more it was expressed. The basis of medieval science was scholasticism, which, of course, had a cardinal role in the development of science, or rather, in its inhibition and even prohibition. Representatives of scholasticism, being theologians, collected and systematized all the scientific and theological studies known before them, combining them into a single system with the sole purpose of leaving it unshakable for all subsequent times [23, v.5, p. 361]. The goal of the scholastics was, on the one hand, to reconcile the dogmas of the church and reason, and on the other hand, to systematize church dogmas into a single system.

Thus, the very possibility of the appearance of something new was ruled out in principle. Given the dominance of the Western medieval church, this «protection» of science from further development was carried out with the help of a sword and a fire. The scholastics urged to take all the provisions on faith, while attempts to give them scientific explanations and justifications were equated with unbelief and heresy. They subordinated reason to ecclesiastical authority, to which they submitted the Bible itself. At the same time, they chose Aristotle and Galen as one of their authorities, whose scientific works henceforth have become the last point in all branches of knowledge [23]. Those who did not agree with certain views of Aristotle or Galen were declared a heretic and burned [2; 15]. At the same time, even the proofs of the provisions of Aristotle or Galen were carried out by the scholastics speculatively, and not experimentally, which ultimately led to the degeneration of scholasticism in general and its transformation into intellectual sophistry [23]. The Church openly declared any scientific or technical innovation to be a sin! [13, p. 303]. Moreover, to invent something new was considered immoral! [13, p. 303].

The religious ignorance of the Middle Ages made impossible the development of anatomy as the foundation of all medical science. Doctors involved in the autopsy of the dead were declared sorcerers and destroyed. Surgery, as we pointed out above, was not considered a science at all and deserved complete contempt. Any attempt to develop experimental medicine was also equated with occult practice. The era of the Middle Ages was a time of undivided domination of unsanitary conditions and epidemics [9].

Medieval medicine and medieval church teaching about saints.

The outwardly majestic building of the medieval church was based on countless saints demanding worship. «In the long period of 1200 years from the reign of Constantine to the Reformation of Luther, the worship of saints and relics distorted the pure and wholesome simplicity of the Christian religion. The clergy knew from experience that the relics of the saints were more valuable than gold and precious stones, so they tried to multiply these church

treasures [12, p. 616–617]. «Without any respect for truth or plausibility, it began to invent names for skeletons and deeds for names [16, v.1, p. 410]. The glory of the apostles and holy people ... it darkened with religious fictions. To the invincible host of real martyrs, it added a myriad of imaginary heroes But the spread of superstition would have been less rapid and less successful if the clergy had not resorted to strengthening the faith of the people, to the help of visions and miracles, certifying the authenticity and miraculous power of the most suspicious relics» [6, v.3, p.318–319] . «Such base passions as pride, greed and revenge, it would seem, should be inaccessible to heavenly spirits; nevertheless, the saints themselves condescended to the point that they gratefully approved of the generous offerings of their worshipers and threatened the most terrible punishments to those wicked who ... did not believe in their supernatural power» [6, v.3, p. 321].

«People constantly turned to the saints for the most common occasions: for help in household, family, social affairs, hoping for their participation in getting rid of illnesses, various troubles and misfortunes. Gradually, a church-folk calendar was formed, where Christian and pagan ideas about saints coexisted absolutely organically. «It was usually argued that the remains of miraculous saints should be buried under the main altar and that the intercession of such saints has special power and strength. It attracted thousands and thousands to see the miracles that took place here, or enlist the intercession of this saint and draw food for your soul. If travelers or pilgrims were not generous enough in their gifts, then there was a fear that their work would not be accepted by this saint. In the course of the sixth century, innumerable religious aspirations arose in honor of the saints, and innumerable feasts and celebrations were instituted so that they would always be held in remembrance. The appeal to the saints eventually became such an all-encompassing custom that there was a danger of forgetting someone of them. The calendar was so crowded with names that if a new saint rose up, they could hardly find a place for him without taking him away from the old saint. East and West competed with each other to multiply the number of saints' names. However, the West recognized only a small number of the saints of the East. The East, for its part, also rejected many of the saints of the Western churches. From this multitude of saints we can see for ourselves the spread of universal idolatry. Cities, churches, monasteries, orders competed among themselves, which of them would attract more pilgrims to their holy tombs. The glory of any new saint stopped visiting the former places for a long time, and, accordingly, took away their profits and incomes. The priests were faced with the need to resume the pilgrimage to the saints and began to invent new and new stories of miracles in order to attract the attention of the crowds» [16, v.1, p. 574–575].

This teaching of the medieval church about saints led, as we saw above, to the ideas of medieval medicine about the healing power of relics, amulets, talismans, etc. The huge crowding of the people during the worship of saints and pilgrimages to the so-called holy places, especially during periods of epidemics, led to their rapid spread. The Crusades, which aimed to liberate and return the

Holy Land, led not only to terrible cruelty, the formation of interethnic and interreligious hatred, but also the appearance in Europe of terrible diseases, and, first of all, leprosy, the spread of which in Europe in the Middle Ages was unprecedented. For example, after the Crusades, by the XIV century, the number of leper colonies in Europe exceeded 19 thousand! [1, p. 240].

Medieval medicine and the teaching of the medieval church about the soul.

One of the central teachings that had no place either in the Bible or in the apostolic period of the church, developed in the Middle Ages, was the doctrine of the immortality of the soul [19; 22]. The very concept of the immortality of the soul was strongly developed in many pagan beliefs, and especially in Greek philosophy, whose followers wanted to teach people not to be afraid of death, which they called «a fatal blow that ends our life and saves us from worldly adversity.» «They came to the conclusion that since none of the properties of matter can be applied to the activity of the mind, then, therefore, the human soul is the same substance, which is different from the body, pure, uncomplicated and spiritual, that it cannot be subjected to corruption and is available to a much higher degree of virtue and happiness after she is freed from her bodily prison. Philosophers following in the footsteps of Plato drew a very unfounded conclusion: they began to assert not only that the human soul is immortal in the future, but also that it existed forever, and began to look at it as part of that infinite and self-existing spirit, that fills and supports the universe» [6, vol. 2, p. 30–31].

Based on this teaching, the church deduced that in order to overcome sin, to liberate the soul, it is necessary to mortify the flesh, showing it all sorts of neglect. So «St. Jerome did not cut his hair ... and fasted until his eyes became cloudy, and his skin hardened like flint; St. Macarius slept for 6 months in a swamp and struggled with passions by letting insects bite his body; St. Pachomius did not sleep lying down for 15 years; St. Abraham did not wash for 50 years; St. Eupraxia trembled at the thought of bathing, and St. Simeon stood on a pillar for 30 years, chained himself to it, and constantly bowed to the ground. One of those who visited him tried to determine their number, counted 1240 in a row and lost count» [11, p. 28]. Based on the same provisions about the need for victory over the flesh, the population of medieval Europe often took baths only 2 times a year, believing, at the instigation of the church, that caring for the cleanliness of the body is to please the flesh, and this was a sin! The monasteries directly said that the lack of concern for the condition of the body, on the one hand, mortifies the sinful flesh, and on the other hand, they

considered impurity and the terrible discomfort and illness associated with it as trials. The consequence of this deliberate medieval attitude to uncleanness and the violation of elementary hygiene standards was the terrible unsanitary conditions of the houses and streets of the medieval city that we have discussed above. Therefore, those who liked to take baths were depicted after death as being in hell [22, p. 79]. At the same time, based on the doctrine she created about the immortality of the soul, the medieval church declared blood to be the receptacle of the soul, and therefore any shedding, even for medical purposes, during an operation was declared sinful, hence the ban on the development of surgery arose.

At the same time, as a result of the development of pagan ideas and teachings about the immortality of the soul, the pagan teaching that, by using the blood of animals or people, a person allegedly receives their strength, also penetrated into the church. Therefore, in medieval recipes, as we saw above, the blood of various animals is included in the component of «medicinal» drugs.

Findings

1. It is shown that in the Middle Ages the sanitary and epidemiological state was characterized by the absence of a sewerage and water supply system; complete unsanitary conditions, both in the city as a whole and in individual houses; lack of elementary rules of personal hygiene; a high percentage of infant mortality and almost unceasing epidemics;

2. It is shown that medicine in the Middle Ages was based on the principles of scholasticism, which rejected in principle any scientific discoveries and opposed faith and science, which made its development impossible in principle;

3. The methods of treatment used by medieval medicine were based on gross superstitions, which boiled down to belief in the healing power of amulets and talismans; attributing the influence on human health to the location of the stars; the role of conspiracies and the healing power of crushed stones and minerals;

4. It has been established that the basis of medieval medicine was primarily the teachings and ideas of the medieval church about the immortality of the soul, saints, illness, education, in which rude pagan beliefs and philosophy prevailed, making not only impossible the development of medicine as such, but also leading to mass epidemics, unsanitary conditions, the growth of neuropsychiatric diseases, and decrease of the duration and quality of life of the population.

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Religious paradigms of medieval medicine

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It is shown that in the Middle Ages the sanitary and epidemiological state was characterized by the absence of a sewerage and water supply system; complete unsanitary conditions, both in the city as a whole and in individual houses; lack of elementary rules of personal hygiene; a high percentage of infant mortality and almost unceasing epidemics. It is shown that medicine in the Middle Ages was based on the principles of scholasticism, which rejected in principle any scientific discoveries and opposed faith and science, which made its development impossible in principle.

The methods of treatment used by medieval medicine were based on gross superstitions, which boiled down to belief in the healing power of amulets and talismans; attributing the influence on human health to the location of the stars; the role of conspiracies and the healing power of crushed stones and minerals. It has been established that the basis of medieval medicine was primarily the teachings and ideas of the medieval church about the immortality of the soul, saints, illness, education, in which rude pagan beliefs and philosophy prevailed, making not only impossible the development of medicine as such, but also leading to mass epidemics, unsanitary conditions, the growth of neuropsychiatric diseases, and decrease of the duration and quality of life of the population.

Key Words: medieval medicine, religious paradigms, methods of treatment.

Релігійні парадигми середньовічної медицини

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У статті показано, що у середньовіччі санітарно-епідеміологічний стан характеризувався відсутністю системи каналізації та водопостачання; повною антисанітарією, як міста загалом, і окремих будинків; відсутністю елементарних правил особистої гігієни; високим відсотком дитячої смертності і епідеміями, що майже не припиняються. Показано, що медицина в епоху середньовіччя ґрунтувалася на принципах схоластики, яка відкидала в принципі будь-які наукові відкриття та протиставляла віру та науку, що робило її розвиток неможливим у принципі.

Методи лікування, що застосовуються середньовічної медициною, базувалися на грубих забобонах, що зводилися до віри в цілющу силу амулетів та талісманів; приписування впливу на здоров'я людини розташування зірок; ролі змов і цілющої сили розтертих каменів та мінералів. Встановлено, що основу середньовічної медицини становили насамперед вчення та уявлення середньовічної церкви про безсмертя душі, святих, про хворобу, освіту, в яких превалювали грубі язичницькі вірування та філософія, які унеможливають розвиток медицини як такої, а й призводять до масових епідемій, антисанітарії, зростанню нервово-психічних захворювань, тривалості та якості життя населення.

Ключові слова: середньовічна медицина, релігійні парадигми, методи лікування.

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