

## **Hippocrates**

### **The Sacred Disease**

It is thus with regard to the disease called Sacred: it appears to me to be nowise more divine nor more sacred than other diseases, but has a natural cause from the originates like other affections. Men regard its nature and cause as divine from ignorance and wonder, because it is not at all like to other diseases. And this notion of its divinity is kept up by their inability to comprehend it, and the simplicity of the mode by which it is cured, for men are freed from it by purifications and incantations. But if it is reckoned divine because it is wonderful, instead of one there are many diseases which would be sacred; for, as I will show, there are others no less wonderful and prodigious, which nobody imagines to be sacred. The quotidian, tertian, and quartan fevers, seem to me no less sacred and divine in their origin than this disease, although they are not reckoned so wonderful. And I see men become mad and demented from no manifest cause, and at the same time doing many things out of place; and I have known many persons in sleep groaning and crying out, some in a state of suffocation, some jumping up and fleeing out of doors, and deprived of their reason until they awaken, and afterward becoming well and rational as before, although they be pale and weak; and this will happen not once but frequently. And there are many and various things of the like kind, which it would be tedious to state particularly.

They who first referred this malady to the gods appear to me to have been just such persons as the conjurors, purificators, mountebanks, and charlatans now are, who give themselves out for being excessively religious, and as knowing more than other people. Such persons, then, using the divinity as a pretext and screen of their own inability to of their own inability to afford any assistance, have given out that the disease is sacred, adding suitable reasons for this opinion, they have instituted a mode of treatment which is safe for themselves, namely, by applying purifications and incantations, and enforcing abstinence from baths and many articles of food which are unwholesome to men in diseases. Of sea substances, the surmullet, the blacktail, the mullet, and the eel; for these are the fishes most to be guarded against. And of flesh, those of the goat, the stag, the sow, and the dog: for these are the kinds of flesh which are aptest to disorder the bowels.

Of fowls, the cock, the turtle, and the bustard, and such others as are reckoned to be particularly strong. And of potherbs, mint, garlic, and onions; for what is acrid does not agree with a weak person. And they forbid to have a black robe, because black is expressive of death; and to sleep on a goat's skin, or to wear it, and to put one foot upon another, or one hand upon another; for all these things are held to be hindrances to the cure. All these they enjoin with reference to its divinity, as if possessed of more knowledge, and announcing beforehand other causes so that if the person should recover, theirs would be the honor and credit; and if he should die, they would have a certain defense, as if the gods, and not they, were to blame, seeing they had administered nothing either to eat or drink as medicines, nor had overheated him with baths, so as to prove the cause of what had happened. But I am of opinion that (if this were true) none of the Libyans, who live in the interior, would be free from this disease, since they all sleep on goats' skins, and live upon goats' flesh; neither have they couch, robe, nor shoe that is not made of goat's skin, for they have no other herds but goats and oxen. But if these things, when administered in food, aggravate the disease, and if it be cured by abstinence from them, godhead is not the cause at all; nor will purifications be of any avail, but it is the food which is beneficial and prejudicial, and the influence of the divinity vanishes.

Thus, they who try to cure these maladies in this way, appear to me neither to reckon them sacred nor divine. For when they are removed by such purifications, and this method of cure, what is to prevent them from being brought upon men and induced by other devices similar to these? So that the cause is no longer divine, but human. For whoever is able, by purifications conjurations, to drive away such an affection, will be able, by other practices, to excite it; and, according to this view, its divine nature is entirely done away with. By such sayings and doings, they profess to be possessed of superior knowledge, and deceive mankind by enjoining lustrations and purifications upon them, while their discourse turns upon the divinity and the godhead. And yet it would appear to me that their discourse savors not of piety, as they suppose, but rather of impiety, and as if there were no gods, and that what they hold to be holy and divine, were impious and unholy. This I will now explain.

For, if they profess to know how to bring down the moon, darken the sun, induce storms and fine weather, and rains and droughts, and make the sea and land unproductive, and so forth, whether they arrogate this power as being derived from mysteries or any other

knowledge or consideration, they appear to me to practice impiety, and either to fancy that there are no gods, or, if there are, that they have no ability to ward off any of the greatest evils. How, then, are they not enemies to the gods? For if a man by magical arts and sacrifices will bring down the moon, and darken the sun, and induce storms, or fine weather, I should not believe that there was anything divine, but human, in these things, provided the power of the divine were overpowered by human knowledge and subjected to it. But perhaps it will be said, these things are not so, but, notwithstanding, men being in want of the means of life, invent many and various things, and devise many contrivances for all other things, and for this disease, in every phase of the disease, assigning the cause to a god. Nor do they remember the same things once, but frequently. For, if they imitate a goat, or grind their teeth, or if their right side be convulsed, they say that the mother of the gods is the cause. But if they speak in a sharper and more intense tone, they resemble this state to a horse, and say that Poseidon is the cause. Or if any excrement be passed, which is often the case, owing to the violence of the disease, the appellation of Enodia is adhibited; or, if it be passed in smaller and denser masses, like bird's, it is said to be from Apollo Nomius. But if foam be emitted by the mouth, and the patient kick with his feet, Ares then gets the blame. But terrors which happen during the night, and fevers, and delirium, and jumpings out of bed, and frightful apparitions, and fleeing away,-all these they hold to be the plots of Hecate, and the invasions the and use purifications and incantations, and, as appears to me, make the divinity to be most wicked and most impious. For they purify those laboring under this disease, with the same sorts of blood and the other means that are used in the case of those who are stained with crimes, and of malefactors, or who have been enchanted by men, or who have done any wicked act; who ought to do the very reverse, namely, sacrifice and pray, and, bringing gifts to the temples, supplicate the gods. But now they do none of these things, but purify; and some of the purifications they conceal in the earth, and some they throw into the sea, and some they carry to the mountains where no one can touch or tread upon them. But these they ought to take to the temples and present to the god, if a god be the cause of the disease. Neither truly do I count it a worthy opinion to hold that the body of man is polluted by god, the most impure by the most holy; for were it defiled, or did it suffer from any other thing, it would be like to be purified and sanctified rather than polluted by god. For it is the divinity which purifies and sanctifies the greatest of offenses and the

most wicked, and which proves our protection from them. And we mark out the boundaries of the temples and the groves of the gods, so that no one may pass them unless he be pure, and when we enter them we are sprinkled with holy water, not as being polluted, but as laying aside any other pollution which we formerly had. And thus it appears to me to hold, with regard to purifications.

But this disease seems to me to be no more divine than others; but it has its nature such as other diseases have, and a cause whence it originates, and its nature and cause are divine only just as much as all others are, and it is curable no less than the others, unless when, the from of time, it is confirmed, and has become stronger than the remedies applied. Its origin is hereditary, like that of other diseases. For if a phlegmatic person be born of a phlegmatic, and a bilious of a bilious, and a phthisical of a phthisical, and one having spleen disease, of another having disease of the spleen, what is to hinder it from happening that where the father and mother were subject to this disease, certain of their offspring should be so affected also? As the semen comes from all parts of the body, healthy particles will come from healthy parts, and unhealthy from unhealthy parts. And another great proof that it is in nothing more divine than other diseases is, that it occurs in those who are of a phlegmatic constitution, but does not attack the bilious. Yet, if it were more divine than the others, this disease ought to befall all alike, and make no distinction between the bilious and phlegmatic.

But the brain is the cause of this affection, as it is of other very great diseases, and in what manner and from what cause it is formed, I will now plainly declare. The brain of man, as in all other animals, is double, and a thin membrane divides it through the middle, and therefore the pain is not always in the same part of the head; for sometimes it is situated on either side, and sometimes the whole is affected; and veins run toward it from all parts of the body, many of which are small, but two are thick, the one from the liver, and the other from the spleen. And it is thus with regard to the one from the liver: a portion of it runs downward through the parts on the side, near the kidneys and the psoas muscles, to the inner part of the thigh, and extends to the foot. It is called vena cava. The other runs upward by the right veins and the lungs, and divides into branches for the heart and the right arm. The remaining part of it rises upward across the clavicle to the right side of the neck, and is superficial so as to be seen; near the ear it is concealed, and there it divides; its thickest, largest, and most hollow part ends in the brain; another small vein goes to the

right ear, another to the right eye, and another to the nostril. Such are the distributions of the hepatic vein. And a vein from the spleen is distributed on the left side, upward and downward, like that from the liver, but more slender and feeble.

By these veins we draw in much breath, since they are the spiracles of our bodies inhaling air to themselves and distributing it to the rest of the body, and to the smaller veins, and they and afterwards exhale it. For the breath cannot be stationary, but it passes upward and downward, for if stopped and intercepted, the part where it is stopped becomes powerless. In proof of this, when, in sitting or lying, the small veins are compressed, so that the breath from the larger vein does not pass into them, the part is immediately seized with numbness; and it is so likewise with regard to the other veins.

This malady, then, affects phlegmatic people, but not bilious. It begins to be formed while the foetus is still in utero. For the brain, like the other organs, is depurated and grows before birth. If, then, in this purgation it be properly and moderately depurated, and neither more nor less than what is proper be secreted from it, the head is thus in the most healthy condition. If the secretion (melting) the from the brain be greater than natural, the person, when he grows up, will have his head diseased, and full of noises, and will neither be able to endure the sun nor cold. Or, if the melting take place from any one part, either from the eye or ear, or if a vein has become slender, that part will be deranged in proportion to the melting. Or, should depuration not take place, but congestion accumulate in the brain, it necessarily becomes phlegmatic. And such children as have an eruption of ulcers on the head, on the ears, and along the rest of the body, with copious discharges of saliva and mucus, -these, in after life, enjoy best health; for in this way the phlegm which ought to have been purged off in the womb, is discharged and cleared away, and persons so purged, for the most part, are not subject to attacks of this disease. But such as have had their skin free from eruptions, and have had no discharge of saliva or mucus, nor have undergone the proper purgation in the womb, these persons run the risk of being seized with this disease.

But should the defluxion make its way to the heart, the person is seized with palpitation and asthma, the chest becomes diseased, and some also have curvature of the spine. For when a defluxion of cold phlegm takes place on the lungs and heart, the blood is chilled, and the veins, being violently chilled, palpitate in the lungs and heart, and the heart

palpitates, so that from this necessity asthma and orthopnoea supervene. For it does not receive the spirits as much breath as he needs until the defluxion of phlegm be mastered, and being heated is distributed to the veins, then it ceases from its palpitation and difficulty of breathing, and this takes place as soon as it obtains an abundant supply; and this will be more slowly, provided the defluxion be more abundant, or if it be less, more quickly. And if the defluxions be more condensed, the epileptic attacks will be more frequent, but otherwise if it be rarer. Such are the symptoms when the defluxion is upon the lungs and heart; but if it be upon the bowels, the person is attacked with diarrhoea.

And if, being shut out from all these outlets, its defluxion be determined to the veins I have formerly mentioned, the patient loses his speech, and chokes, and foam issues by the mouth, the teeth are fixed, the hands are contracted, the eyes distorted, he becomes insensible, and in some cases the bowels are evacuated. And these symptoms occur sometimes on the left side, sometimes on the right, and sometimes in both. The cause of everyone of these symptoms I will now explain. The man becomes speechless when the phlegm, suddenly descending into the veins, shuts out the air, and does not admit it either to the brain or to the vena cava, or to the ventricles, but interrupts the inspiration. For when a person draws in air by the mouth and nostrils, the breath goes first to the brain, then the greater part of it to the internal cavity, and part to the lungs, and part to the veins, and from them it is distributed to the other parts of the body along the veins; and whatever passes to the stomach cools, and does nothing more; and so also with regard to the lungs. But the air which enters the veins is of use (to the body) by entering the brain and its ventricles, and thus it imparts sensibility and motion to all the members, so that when the veins are excluded from the air by the phlegm and do not receive it, the man loses his speech and intellect, and the hands become powerless, and are contracted, the blood stopping and not being diffused, as it was wont; and the eyes are distorted owing to the veins being excluded from the air; and they palpitate; and froth from the lungs issues by the mouth. For when the breath does not find entrance to him, he foams and sputters like a dying person. And the bowels are evacuated in consequence of the violent suffocation; and the suffocation is produced when the liver and stomach ascend to the diaphragm, and the mouth of the stomach is shut up; this takes place when the breath does not enter by the mouth, as it is wont. The patient kicks with his feet when the air is shut up in the lungs and cannot find an outlet, owing to the phlegm; and rushing by the blood upward and

downward, it occasions convulsions and pain, and therefore he kicks with his feet. All these symptoms he endures when the cold phlegm passes into the warm blood, for it congeals and stops the blood. And if the deflexion be copious and thick, it immediately proves fatal to him, for by its cold it prevails over the blood and congeals it; or, if it be less, it in the first place obtains the mastery, and stops the respiration; and then in the course of time, when it is diffused along the veins and mixed with much warm blood, it is thus overpowered, the veins receive the air, and the patient recovers his senses.

Of little children who are seized with this disease, the greater part die, provided the defluxion be copious and humid, for the veins being slender cannot admit the phlegm, owing to its thickness and abundance; but the blood is cooled and congealed, and the child immediately dies. But if the phlegm be in small quantity, and make a defluxion into both the veins, or to those on either side, the children survive, but exhibit notable marks of the disorder; for either the mouth is drawn aside, or an eye, the neck, or a hand, wherever a vein being filled with phlegm loses its tone, and is attenuated, and the part of the body connected with this vein is necessarily rendered weaker and defective. But for the most it affords relief for a longer interval; for the child is no longer seized with these attacks, if once it has contracted this impress of the disease, in consequence of which the other veins are necessarily affected, and to a certain degree attenuated, so as just to admit the air, but no longer to permit the influx of phlegm. However, the parts are proportionally enfeebled whenever the veins are in an unhealthy state. When in striplings the defluxion is small and to the right side, they recover without leaving any marks of the disease, but there is danger of its becoming habitual, and even increasing if not treated by suitable remedies. Thus, or very nearly so, is the case when it attacks children.

To persons of a more advanced age, it neither proves fatal, nor produces distortions. For their veins are capacious and are filled with hot blood; and therefore the phlegm can neither prevail nor cool the blood, so as to coagulate it, but it is quickly overpowered and mixed with the blood, and thus the veins receive the air, and sensibility remains; and, owing to their strength, the aforesaid symptoms are less likely to seize them. But when this disease attacks very old people, it therefore proves fatal, or induces paraplegia, because the veins are empty, and the blood scanty, thin, and watery. When, therefore, the defluxion is copious, and the season winter, it proves fatal; for it chokes up the exhalents, and coagulates the blood if the defluxion be to both sides; but if to either, it merely induces

paraplegia. For the blood being thin, cold, and scanty, cannot prevail over the but being itself overpowered, it is coagulated, so that those parts in which the blood is corrupted, lose their strength.

The flux is to the right rather than to the left because the veins there are more capacious and numerous than on the left side, for on the one side they spring from the liver, and on the other from the spleen. The defluxion and melting down take place most especially in the case of children in whom the head is heated either by the sun or by fire, or if the brain suddenly contract a rigor, and then the phlegm is excreted. For it is melted down by the heat and diffusion of the but it is excreted by the congealing and contracting of it, and thus a defluxion takes place. And in some this is the cause of the disease, and in others, when the south wind quickly succeeds to northern breezes, it suddenly unbinds and relaxes the brain, which is contracted and weak, so that there is an inundation of phlegm, and thus the defluxion takes place. The defluxion also takes place in consequence of fear, from any hidden cause, if we are the at any person's calling aloud, or while crying, when one cannot quickly recover one's breath, such as often happens to children. When any of these things occur, the body immediately shivers, the person becoming speechless cannot draw his breath, but the breath (pneuma) stops, the brain is contracted, the blood stands still, and thus the excretion and defluxion of the phlegm take place. In children, these are the causes of the attack at first. But to old persons winter is most inimical. For when the head and brain have been heated at a great fire, and then the person is brought into cold and has a rigor, or when from cold he comes into warmth, and sits at the fire, he is apt to suffer in the same way, and thus he is seized in the manner described above. And there is much danger of the same thing occurring, if his head be exposed to the sun, but less so in summer, as the changes are not sudden. When a person has passed the twentieth year of his life, this disease is not apt to seize him, unless it has become habitual from childhood, or at least this is rarely or never the case. For the veins are filled with blood, and the brain consistent and firm, so that it does not run down into the veins, or if it do, it does not master the blood, which is copious and hot.

But when it has gained strength from one's childhood, and become habitual, such a person usually suffers attacks, and is seized with them in changes of the winds, especially in south winds, and it is difficult of removal. For the brain becomes more humid than natural, and is inundated with phlegm, so that the defluxions become more frequent, and the



phlegm can no longer be the nor the brain be dried up, but it becomes wet and humid. This you may ascertain in particular, from beasts of the flock which are seized with this disease, and more especially goats, for they are most frequently attacked with it. If you will cut open the head, you will find the brain humid, full of sweat, and having a bad smell. And in this way truly you may see that it is not a god that injures the body, but disease. And so it is with man. For when the disease has prevailed for a length of time, it is no longer curable, as the brain is corroded by the phlegm, and melted, and what is melted down becomes water, and surrounds the brain externally, and overflows it; wherefore they are more frequently and readily seized with the disease. And therefore the disease is protracted, because the influx is thin, owing to its quantity, and is immediately overpowered by the blood and heated all through.

But such persons as are habituated to the disease know beforehand when they are about to be seized and flee from men; if their own house be at hand, they run home, but if not, to a deserted place, where as few persons as possible will see them falling, and they immediately cover themselves up. This they do from shame of the affection, and not from fear of the divinity, as many suppose. And little children at first fall down wherever they may happen to be, from inexperience. But when they have been often seized, and feel its approach beforehand, they flee to their mothers, or to any other person they are acquainted with, from terror and dread of the affection, for being still infants they do not know yet what it is to be ashamed.

Therefore, they are attacked during changes of the winds, and especially south winds, then also with north winds, and afterwards also with the others. These are the strongest winds, and the most opposed to one another, both as to direction and power. For, the north wind condenses the air, and separates from it whatever is muddy and nebulous, and renders it clearer and brighter, and so in like manner also, all the winds which arise from the sea and other waters; for they extract the humidity and nebulosity from all objects, and from men themselves, and therefore it (the north wind) is the most wholesome of the winds. But the effects of the south are the very reverse. For in the first place it begins by melting and diffusing the condensed air, and therefore it does not blow strong at first, but is gentle at the commencement, because it is not able at once to overcome the and compacted air, which yet in a while it dissolves. It produces the same effects upon the land, the sea, the fountains, the wells, and on every production which contains humidity,

and this, there is in all things, some more, some less. For all these feel the effects of this wind, and from clear they become cloudy, from cold, hot; from dry, moist; and whatever ear then vessels are placed upon the ground, filled with wine or any other fluid, are affected with the south wind, and undergo a change. And the a change. And the sun, and the moon, it renders blunter appearance than they naturally are. When, then, it possesses such powers over things so great and strong, and the body is made to feel and undergo changes in the changes of the winds, it necessarily follows that the brain should be dissolved and overpowered with moisture, and that the veins should become more relaxed by the south winds, and that by the north the healthiest portion of the brain should become contracted, while the most morbid and humid is secreted, and overflows externally, and that catarrhs should thus take place in the changes of these winds. Thus is this disease formed and prevails from those things which enter into and go out of the body, and it is not more difficult to understand or to cure than the others, neither is it more divine than other diseases.

Men ought to know that from nothing else but the brain come joys, delights, laughter and sports, and sorrows, griefs, despondency, and lamentations. And by this, in an especial manner, we acquire wisdom and knowledge, and see and hear, and know what are foul and what are fair, what are bad and what are good, what are sweet, and what unsavory; some we discriminate by habit, and some we perceive by their utility. By this we distinguish objects of relish and disrelish, according to the seasons; and the same things do not always please us. And by the same organ we become mad and delirious, and fears and terrors assail us, some by night, and some by day, and dreams and untimely wanderings, and cares that are not suitable, and ignorance of present circumstances, desuetude, and unskilfulness. All these things we endure from the brain, when it is not healthy, but is more hot, more cold, more moist, or more dry than natural, or when it suffers any other preternatural and unusual affection. And we become mad from its humidity. For when it is more moist than natural, it is necessarily put into motion, and the affection being moved, neither the sight nor hearing can be at rest, and the tongue speaks in accordance with the sight and hearing.

As long as the brain is at rest, the man enjoys his reason, but the depravement of the brain arises from phlegm and bile, either of which you may recognize in this manner: Those who are mad from phlegm are quiet, and do not cry out nor make a noise; but those from

bile are vociferous, malignant, and will not be quiet, but are always doing something improper. If the madness be constant, these are the causes thereof. But if terrors and fears assail, they are connected with derangement of the brain, and derangement is owing to its being heated. And it is heated by bile when it is determined to the brain along the bloodvessels running from the trunk; and fear is present until it returns again to the veins and trunk, when it ceases. He is grieved and troubled when the brain is unseasonably cooled and contracted beyond its wont. This it suffers from phlegm, and from the same affection the patient becomes oblivious. He calls out and screams at night when the brain is suddenly heated. The bilious endure this. But the phlegmatic are not heated, except when much blood goes to the brain, and creates an ebullition. Much blood passes along the aforesaid veins. But when the man happens to see a frightful dream and is in fear as if awake, then his face is in a greater glow, and the eyes are red when the patient is in fear. And the understanding meditates doing some mischief, and thus it is affected in sleep. But if, when awakened, he returns to himself, and the blood is again distributed along the veins, it ceases.

In these ways I am of the opinion that the brain exercises the greatest power in the man. This is the interpreter to us of those things which emanate from the air, when the brain happens to be in a sound state. But the air supplies sense to it. And the eyes, the ears, the tongue and the feet, administer such things as the brain cogitates. For in as much as it is supplied with air, does it impart sense to the body. It is the brain which is the messenger to the understanding. For when the man draws the breath into himself, it passes first to the brain, and thus the air is distributed to the rest of the body, leaving in the brain its acme, and whatever has sense and understanding. For if it passed first to the body and last to the brain, then having left in the flesh and veins the judgment, when it reached the brain it would be hot, and not at all pure, but mixed with the humidity from flesh and blood, so as to be no longer pure.

Wherefore, I say, that it is the brain which interprets the understanding. But the diaphragm has obtained its name (*frenes*) from accident and usage, and not from reality or nature, for I know no power which it possesses, either as to sense or understanding, except that when the man is affected with unexpected joy or sorrow, it throbs and produces palpitations, owing to its thinness, and as having no belly to receive anything good or bad that may present themselves to it, but it is thrown into commotion by both these, from its

natural weakness. It then perceives beforehand none of those things which occur in the body, but has received its name vaguely and without any proper reason, like the parts about the heart, which are called auricles, but which contribute nothing towards hearing. Some say that we think with the heart, and that this is the part which is grieved, and experiences care. But it is not so; only it contracts like the diaphragm, and still more so for the same causes. For veins from all parts of the body run to it, and it has valves, so as to as to perceive if any pain or pleasurable emotion befall the man. For when grieved the body necessarily shudders, and is contracted, and from excessive joy it is affected in like manner. Wherefore the heart and the diaphragm are particularly sensitive, they have nothing to do, however, with the operations of the understanding, but of all but of all these the brain is the cause. Since, then, the brain, as being the primary seat of sense and of the spirits, perceives whatever occurs in the body, if any change more powerful than usual take place in the air, owing to the seasons, the brain becomes changed by the state of the air. For, on this account, the brain first perceives, because, I say, all the most acute, most powerful, and most deadly diseases, and those which are most difficult to be understood by the inexperienced, fall upon the brain.

And the disease called the Sacred arises from causes as the others, namely, those things which enter and quit the body, such as cold, the sun, and the winds, which are ever changing and are never at rest. And these things are divine, so that there is no necessity for making a distinction, and holding this disease to be more divine than the others, but all are divine, and all human. And each has its own peculiar nature and power, and none is of an ambiguous nature, or irremediable. And the most of them are curable by the same means as those by which any other thing is food to one, and injurious to another. Thus, then, the physician should understand and distinguish the season of each, so that at one time he may attend to the nourishment and increase, and at another to abstraction and diminution. And in this disease as in all others, he must strive not to feed the disease, but endeavor to wear it out by administering whatever is most opposed to each disease, and not that which favors and is allied to it. For by that which is allied to it, it gains vigor and increase, but it wears out and disappears under the use of that which is opposed to it. But whoever is acquainted with such a change in men, and can render a man humid and dry, hot and cold by regimen, could also cure this disease, if he recognizes the proper season

for administering his remedies, without minding purifications, spells, and all other illiberal practices of a like kind.