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The Hippocratic Oath: a Code for Physicians, not a Pythagorean Manifesto

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Abstract — The Hippocratic Oath is to be considered a code of conduct for all physicians and not a Pythagorean manifesto, in spite of the view of Edelstein. In fact, it can be shown that the prohibitions and requirements on which the Pythagorean hypothesis rests (the prohibition against helping suicide, inducing abortion, performing surgery, and having sex with patients or with members of their household and the rules of confidentiality and collegiality) do not necessarily link the Hippocratic Oath to the Pythagoreans. Edelstein affirms that *only* the Pythagoreans condemned suicide, whereas it can be shown that Plato, Aristotle, the Epicureans, and several authors in antiquity opposed it. Similarly, induced abortion was by no means universally accepted in antiquity. Soranus, for example, clearly states that many physicians opposed it in all cases. The passage of the oath concerning surgery can be shown to refer only to lithotomy (as others have underlined). As for sexual relations with patients or members of their household (male or female), the existence of laws against promiscuity (homo- or heterosexual), and other evidence, indicates that it was usually condemned. Finally, confidentiality and collegiality were virtues that the Pythagoreans were not alone in upholding. In addition, many of the principles upheld by the Oath are found in other documents unrelated to the Pythagoreans.

For the half century since Edelstein, in a well-known work (1), proclaimed that the Hippocratic Oath 'in spirit and in letter, in form and content ... is a Pythagorean manifesto (2),' it has been widely accepted, in spite of dissenting voices (3), that the Oath is indeed a Pythagorean document (4). As a result, it has also been held that as the Oath 'originated in a group representing a small segment of Greek opinion,' i.e., the Pythagoreans, it did not reflect ethical principles commonly accepted in classical times (5)

and, for this reason, 'for centuries ancient physicians, in opposition to the demands made by the Oath, put poison in the hands of those among their patients who intended to commit suicide; they administered abortive remedies; they practiced surgery (6).'

The purpose of this paper is to suggest: a) that the Oath was what it had traditionally been considered to be before the publication of Edelstein's work, namely a code of conduct for physicians which reflected commonly accepted ethical principles;

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The purpose of this paper is to suggest: a) that the Oath was what it had traditionally been considered to be before the publication of Edelstein's work, namely a code of conduct for physicians which reflected commonly accepted ethical principles;

b) that its Pythagorean traits are coincidental; c) that the numerous violations of it by ancient physicians were not related to its alleged Pythagorean origin.

The following is Edelstein's translation of the Oath:

I swear by Apollo Physician and Asclepius and Hygieia and Panacea and all the gods and goddesses, making them my witnesses, that I will fulfil according to my ability and judgment this oath and this covenant:

To hold him who has taught me this art as equal to my parents and to live my life in partnership with him, and if he is in need of money to give him a share of mine, and to regard his offspring as equal to my brothers in male lineage and to teach them this art – if they desire to learn it – without fee and covenant; to give a share of precepts and oral instruction and all the other learning to my sons and to the sons of him who has instructed me and to pupils who have signed the covenant and have taken an oath according to the medical law, but to no one else.

I will apply dietetic measures for the benefit of the sick according to my ability and judgment; I will keep them from harm and injustice.

I will neither give a deadly drug to anybody if asked for it, nor will I make a suggestion to this effect. Similarly I will not give a woman an abortive remedy. In purity and holiness I will guard my life and my art.

I will not use the knife, not even on the sufferers from stone, but will withdraw in favor of such men as are engaged in this work.

Whatever houses I may visit, I will come for the benefit of the sick, remaining free of all intentional injustice, of all mischief and in particular of sexual relations with both female and male persons, be they free or slaves.

What I may see or hear in the course of the treatment or even outside of the treatment in regard to the life of men, which on no account one must spread abroad, I will keep to myself holding such things shameful to be spoken about.

If I fulfil this oath and do not violate it, may it be granted to me to enjoy life and art, being honored with fame among all men for all time to come; if I transgress it and swear falsely, may the opposite of all this be my lot (7).

To support his thesis that the document was a Pythagorean manifesto, Edelstein focused on the following points, of which some prohibited the physician from:

1. administering or prescribing deadly drugs, even if asked by the patient;
2. inducing abortion;
3. performing surgery, 'not even on sufferers from stone, but... withdraw in favor of such men as are engaged in this work';
4. having sexual relations with any member (male or female, free or slave) of the household where he is called;

and others required that the physician:

5. keep confidential any information about patients;
6. consider his teacher of medicine as his father and the teacher's children as brothers, share his own money with the teacher if he were to be in need, and pass his own medical knowledge to his own sons, the sons of the teacher, and 'to pupils who have signed the covenant and have taken an oath according to the medical law, but to no one else.'

Edelstein underlines the contradiction between, on one side, ancient ethics and medical practice and, on the other, the rules and prohibitions of the Oath: 'suicide was not censured in antiquity,' and 'many physicians actually gave their patients the poison for which they were asked (8)'; '(concerning abortion), in antiquity it was not generally considered a violation of medical ethics to do what the Oath forbade,' and 'many physicians prescribed and gave abortive remedies (9)'; in spite of the Oath's prohibition, surgery was commonly performed by Hippocratic physicians. He then notes that the principles reflected in the Hippocratic Oath were alien to all philosophical schools of the time except to the Pythagoreans, who condemned abortion, suicide, and all forms of surgery. As for the injunctions about sex with the members of the patient's household (including slaves), 'their (i.e., the Pythagoreans') views on sexual matters were severer than those of all other ancient philosophers'; 'they alone condemned sodomy (10)'; and 'free born people and slaves, for the Pythagoreans, were on equal footing (11)'. Moreover, concerning confidentiality and the teaching of medicine, 'They (i.e., the Pythagoreans) did not indiscriminately impart their knowledge to others. They expected the scientist to be reticent and ready to listen. They expected silence even in daily life (12)'.

According to Edelstein, not only could the Oath's prohibitions be interpreted as a reflection of the Pythagorean point of view, but the duties of the physician toward his teacher also showed an unmistakable Pythagorean imprint. He asserts that, whereas to consider the teacher a father was a practice not known 'to have been customary in ancient scientific or practical training... the Pythagoreans of the fourth century apparently were wont to honor those by whom they had been instructed as their fathers by adoption (13)'. In addition, 'that the Pythagorean pupil shared his money with his teacher if necessary,' he says, 'one may readily believe (14)' and 'the Pythagoreans considered themselves brothers (15)'. Edelstein, therefore, concluded not only that 'in spirit and in letter, in form and content, is (the Oath) a Pythagorean manifesto', but also that 'all its details are understandable *only* (our italics) in connection with Pythagoreanism (16)'.

1. Poison for suicide

The passage in the Oath concerning poison most likely refers to patients wanting to commit suicide because of intractable and incurable illnesses. It is well known that suicide was condoned by many in the classical world and that it was often considered an honorable way to terminate an existence that, for whatever reason, had become intolerable (17). This, however, does not mean that 'among all Greek thinkers the Pythagoreans *alone* (our italics) outlawed suicide and did so without qualifications (18)'.

In fact, according to Plato, this is how Socrates felt about suicide:

Tell me then, Socrates, what are the grounds for saying that suicide is not legitimate? I have heard it described as wrong before now, as you suggested, both by Philolaus (19), when he was staying with us, and by others as well, but I have never yet heard any definite explanation for it.

(Socrates answers). . . no doubt you will feel it strange that this should be the one question that has an unqualified answer (or: that this alone of all laws is without exception²⁰). . . And it probably seems strange to you that it should not be right for those to whom death would be an advantage to benefit themselves, but that they should have to await the services of someone else. . . All the same, Cebes, I believe that this much is true, that the gods are our keepers, and we men are one of their possessions. Don't you think so?

Yes, I do, said Cebes.

Then take your own case. If one of your possessions were to destroy itself without intimation from you that you wanted it to die, wouldn't you be angry with it and punish it, if you had any means of doing so?

Certainly.

So if you look at it in this way I suppose it is not unreasonable to say that we must not put an end to ourselves until God sends some compulsion like the one which we are facing now (i.e. his death sentence). That seems likely, I admit, said Cebes (21).

Aristotle expresses contempt for the suicide who tries to escape suffering by killing himself:

But to die to escape from poverty or (the sorrows of) love or anything painful is not the mark of a brave man, but rather of a coward; for it is softness to fly from what is troublesome, and such a man endures death not because it is noble but to fly from evil (22).

He also states that suicide is contrary to the 'right rule of life':

And he who through anger voluntarily stabs himself does this contrary to the right rule of life, and this the law does not permit; therefore he is acting unjustly (23).

According to Plutarch, Cleomenes, the son of Leonidas, gave the following answer when Therycion proposed suicide:

It is the easiest possible step thou urgest, wretched man, and one that any man may take, this dying; and dost thou think thyself brave when thou art making a flight more shameful than the one preceding it? . . . He who in the face of toils and hardships, or of the censorious judgments of men, gives up the fight, is vanquished by his own weakness. . . For it is shameful to die, as well as to live, for one's self alone. And yet it is this that thou now invitest me in thine eagerness to be rid of present troubles, though beyond that thou wilt effect nothing that is honorable or useful (24).

Epicurus, according to Diogenes Laertius, did not approve of suicide;

(Epicurus says that) even when. . . (the wise man) has lost his sight, he will not withdraw himself from life (that is, commit suicide) (25).

Lucretius, the Roman Epicurean, scorns the suicide who (as one affected by an incurable disease could do) kills himself for fear of death:

And often, for fear of death, men are seized by hatred of life, by hatred of seeing the light, and with anguish they inflict death on themselves, forgetting that this fear is the origin of their distress (26).

Examples of physicians who refused to furnish help in suicide, although rare (27), are not unknown: when the emperor Hadrian wanted to end his life, his physician, in order not to be obliged to furnish the poison, preferred to kill himself (28); in *The Golden Ass*, the physician who was asked for poison states in court 'nec meae sectae crederem convenire causa ulli praebere mortis, nec exitio sed saluti hominum medicinam quaesitam esse didicissem' (29, 30)*.

In fact, the Pythagorean, far from being the only school to condemn suicide, was just one of several: the Academic, Peripatetic, and Epicurean schools opposed suicide and only the Cynic and the Stoic condoned it (31). Yet, Edelstein asserts that the Oath's prohibition 'did not echo the general feeling of the public' and that 'suicide was not censured in antiquity (32)'. If we consider laws as reflecting beliefs generally held by a given society at a given time, we must, however, conclude that the 'general feeling of the public' was against suicide because, in Greece, there were laws against it (33) and, in Athens, suicides were buried with their right hands amputated (34,35). Self-destruction was also condemned in early Roman religious law and tradition: Servius says that, according to Cassius Hemina, the ignominy of suicide dates from the time of Tarquinius Superbus, and that the *Libri Pontificales* prescribed that the body of one who had hanged himself should be left unburied; the ignominy of the hanged, he also says, is mentioned by Varro as well (36).

It must also be underlined that, in the *Hippocratic*

Corpus there is not a single case in which suicide is suggested, let alone encouraged, although there is a passage which could be interpreted as meaning that, at least sometimes, suicidal attempts were discouraged:

Others who (after fasting seven days) were persuaded to eat and drink and not to let themselves die of starvation . . . (37).

We may therefore conclude that, in spite of the assertion of Edelstein mentioned above, the Pythagoreans were not alone in opposing suicide (38) and, therefore, that the Oath's prohibition concerning poison was not necessarily of Pythagorean origin. In other words, the assumption of a necessary Pythagorean origin of the prohibition is unwarranted.

2. Abortion

In antiquity, abortion was not universally accepted. As Edelstein has shown, one can find many ancient authors who considered it acceptable; it is not difficult, however, to find authors supporting the opposite view as well:

Galen mentions that Lycurgus and Solon promulgated laws against abortion and asserts that their laws were based on the fact that the fetus is a living being (39). Some historians believe (although the record is not clear) that in at least some parts of the Greek world there were laws against abortion (40). Aristotle distinguishes abortion allowed and not allowed ('to gar osion kai to me'), the difference resting on whether the fetus is alive and sentient or not (41).

In the *Commentary* of Sopater (fourth century A.D.) there is reference to a work about abortion that may have been written by Lysias (c.460–c.370 B.C.) (42):

There are, in fact, medical and philosophical problems. A medical problem, for example, is the one that Lysias also considered: if he who caused a woman to abort committed homicide. First of all, it is necessary to know if, before the expulsion, (the fetus) was alive. This kind of thing is for physicians and natural philosophers (to decide) . . . (43).

Cicero (106–43 B.C.) describes with contempt a case of abortion motivated by greed:

Having taken the money and many gifts, overcome by greed, she sold the promise in her womb that was entrusted to her by the husband (44).

He also reports a case that occurred in Miletus:

I remember a case . . . how a certain woman of Miletus, who had accepted a bribe from the alternative heirs and procured her own abortion by drugs, was condemned to death: and rightly, for she had cheated the father of his

hopes, his name of continuity, his family of its support, his house of an heir, and the Republic of a citizen-to-be (45).

Juvenal (early 2nd century A.D.) decries abortion as the murder of human beings within the womb:

So great is the skill and so powerful the drugs of the abortionist who murders human beings within the womb (46).

Ovid, not known for puritanical principles concerning sexual mores, laments the practice of abortion:

Ah, women, why will you thrust and pierce with the instrument (literally: why do you dig with shafts at your vitals from below) and give dire poisons to your children yet unborn? . . . This neither the tigress has done in jungles of Armenia, nor has lioness had the heart to destroy her unborn young; yet tender woman does it – but not unpunished; oft she who slays her own in her bosom dies herself. She dies herself, and is borne to the pyre with hair unloosened, and all who behold cry out: 'Tis her desert' (47).

The passage is of particular interest because it underlines that not only Ovid himself condemned abortion but 'all who behold', that is, the people who are present at the cremation as well.

Seneca wrote with pride about his own mother:

. . . never, as it was common among other women. . . did you hide, almost as it were an indecent burden, the tumescent uterus, nor did you tear out from your viscera the conceived hopes of children . . . (48).

The most important evidence against general acceptance of abortion, however, is given by Soranus (98–138 A.D.). The greatest of the ancient gynecologists, in fact, clearly states that some physicians opposed abortion in all cases because 'it is the specific task of medicine to guard and preserve what has been engendered by nature', and that even those who were not opposed to it had ethical qualms and would allow it only to preserve the health of the mother:

But (concerning abortion) a controversy has arisen. For one party banishes abortives, citing the testimony of Hippocrates who says: 'I will give no one an abortive (49)'; moreover, because it is the specific task of medicine to guard and preserve what has been engendered by nature. The other party prescribes abortives, but with discrimination, that is, they do not prescribe them when a person wishes to destroy the embryo because of adultery or out of consideration for youthful beauty; but only to prevent subsequent danger in parturition. . . And they say the same about contraceptives as well, and we too agree with them (50).

Obviously Soranus, while recognizing the necessity of performing abortion to protect the health of the mother, acknowledges the moral problem by

asserting that it is to be condemned if performed for trivial reasons (51). For our purpose, it is of interest that he indicates that there were two factions among physicians and that one of the two felt that abortion had to be rejected in all cases (52).

Finally, in the entire *Corpus Hippocraticum*, there is but one prescription for aborting a healthy fetus. The case concerned a danseuse (owned by a procuress who was a relative of the author) who allegedly was pregnant for 6 days. The author of the Hippocratic treatise advised the girl to expel the 'seed' by leaping so that the heels touched the buttocks – the so-called 'Lacedaemonian leap' (53). It is of interest that, in antiquity, at least by some, this was not considered an abortion:

And an 'expulsive' some say is synonymous with an abortive; others, however, say that there is a difference because an expulsive does not mean drugs but shaking and leaping. . . For this reason they say that Hippocrates, although prohibiting abortives, yet in his book *On the Nature of the Child* employs leaping with the heels to the buttocks for the sake of expulsion (54).

All the other prescriptions in the Hippocratic Corpus for emptying the pregnant uterus are for the expulsion of a dead, paralysed or half-developed fetus, in other words, for the termination of an irreparably compromised pregnancy (55).

It would appear that, in classical times, there were those who did not object to abortion, others who felt it to be justified only in certain circumstances, and others who were against it in all cases. In other words, there was a body of opinion, unrelated to Pythagorean philosophy, that condemned abortion (56), and we believe that the Hippocratic Oath reflected this point of view (57). This being the case, the Pythagoreans do not need to be called into the picture and, once again, the assumption that the prohibition necessarily reflects their philosophy is unwarranted.

3. Surgery

The crucial sentence of the Oath concerning surgery, 'ou temeio de oude men lithiontas', is translated by Edelstein as 'I will not use the knife, not even on sufferers from stone,' but he himself acknowledges that it can also be translated as 'I will not use the knife either on sufferers from stone (58)'. Others, in fact, have rendered it 'I will not cut persons laboring under the stone (59)', or 'I shall not practice the operation for the stone (60)', or 'I shall not operate those who suffer from the stone (61)', or 'I will never cut patients who suffer from stone (62)', or 'Also, I will not operate for the stone (63, 64)'.

It is evident that, only if the sentence is translated Edelstein's way (65), does it mean that the physician should not practice surgery at all. It is difficult to see, however, why the author of the Oath would have chosen such a cumbersome way to express himself. If the idea was that the physician should not practice surgery, why add 'not even for the stone'? Why not simply say 'I will not use the knife'? As the operation for the stone is not mentioned in the Hippocratic Corpus except in this passage (66), it could not have occupied a particularly important place in Hippocratic medicine. Why mention the operation at all then, if it were not to single it out as the *only* operation that was forbidden? It seems logical, therefore, to choose the alternate translation, mentioned as possible by Edelstein himself, and to conclude that the physician taking the Oath simply promises not to operate for the stone while, it is understood, he will practice other kinds of surgery.

The point that remains to be clarified is why, for the operation of lithotomy, the physician 'will withdraw in favor of such men as are engaged in this work'. It seems evident that the passage means that the operation was to be performed by specialists (67), i.e., by individuals who were experts in this specific operation and were therefore better able to perform it with less risk for the patient. Edelstein says that 'such an explanation . . . leads into great difficulties', because 'lithotomy as performed in antiquity was not a more daring operation than many other which the general practitioner undertook without hesitation (68)'.

It would appear that Edelstein, treading here on unfamiliar ground, did not appreciate the risks that such surgery involved.

Here is how the operation was described by Celsus:

Two strong men should be put on the sides, and they by standing there prevent the man or men who are holding the boy (i.e., the young patient) from slipping. Then the surgeon having carefully pared his nails and anointed his left hand, gently introduces two fingers, the index and the middle . . . into the anus . . . and the stone is first sought for about the neck of the bladder . . . if the stone is not found at the neck of the bladder . . . the fingers are placed against the base of the bladder, while the surgeon's right hand too is placed above the stone and gradually follows it downward. When the stone has been found, and it must fall between his hands, it is guided downward with special care the smaller and the smoother it is, lest it escapes . . . When the stone has now got there (at the neck of the bladder), then the skin over the neck of the bladder next to the anus should be incised . . . then a second cut is to be made under the skin . . . to open up the neck of the bladder until the urinary passage is open so that the wound is a little larger than the stone . . . Now when the urethra has been laid open, the stone comes into view . . . if it is small, it can be

pushed outward with the fingers . . . if large, we must put over the upper part of it the scoop made for the purpose (there follows a lengthy description of the complicated maneuvers to extract the stone with the scoop and of the dangers associated with it) . . . When the stone has been extracted, if the patient is strong . . . it is well to let the bleeding go on . . . but if again the bleeding does not cease of its own accord . . . (a very lengthy discussion of possible complications and their treatment follows) (69).

It is evident that the difficulties were great and many, and that, under the conditions prevalent in ancient surgery (no asepsis, no antibiotics, no anesthesia), the incidence of serious complications must have been high indeed. Celsus himself describes the operation as extremely risky, in fact, reckless ('temeraria medicina'), full of all sorts of dangers ('in quo plura . . . genera . . . periculi sunt'), usually disappointing ('saepius utique . . . fallat') (70), and says that it was to be used as 'a last resource' when 'the disease is so bad that it cannot be relieved by medications or endured by the patient without shortly bringing his life to a close (71)'.

In view of the above, it is reasonable to conclude that the Hippocratic physician did not want to perform the operation because it was too dangerous (72), and that he left it to the specialist because the risk for the patient would have been less if it was performed by somebody with a great deal of experience. At a time when theoretical background knowledge was purely speculative and of little help, practical experience was, in fact, all-important.

As for the other operations that Edelstein assumed to be as daring and that the general practitioner 'undertook without hesitation', they consisted in reduction of fractures and dislocations, resection of bone splinters in compound fractures, thoracenteses, paracenteses, operation of fistulas and hemorrhoids, catheterizations, extraction of dead fetuses from the uterus, and cauterizations (73). It is evident that none of these even approaches the complexity and dangers of lithotomy (74). The Hippocratic physician also practiced cranial trephining, of course, but, as we have discussed elsewhere (75), this operation, practiced from prehistoric times, was not very dangerous if one took care, as the Hippocratic physician did (76), not to pierce the *dura mater*.

We may therefore conclude that, contrary to Edelstein's view, the Oath did not forbid surgery in general but only the cutting for the stone. In addition, the Oath tells us that lithotomy had to be performed by specialists; the reason for this is not spelled out but the fact that it was a most dangerous operation seems to be most logical explanation.

In view of these considerations, not only is the position of the Pythagoreans irrelevant to the

Hippocratic injunction against operating for the stone, but it would appear that the Oath, in this case, goes against Pythagorean tenets because the members of the sect were against all kinds of surgery, as Edelstein himself has so clearly shown.

4. Sexual behavior in the house of the sick

The Hippocratic oath enjoins the physician to refrain, in the house of the sick, from injustice and mischief and from indulging in sexual contact with members of the household. It is not clear why it is necessary to invoke a particular philosophical doctrine to support such elementary rules of decency, which can be expected to be part of common morality.

The Oath protects all members of the household, men and women, free and slaves, against the amorous desires of the physician. Edelstein, to make his case for the Pythagorean origin of the Oath, underlines that 'The Pythagoreans upheld the equality of men and women (and) *they alone condemned sodomy*' (our italics). 'Besides', he continues, 'in the performance of moral duties, they did not discriminate between social ranks. In that respect free-born people and slaves, for the Pythagoreans, were on equal footing'. He then concludes that 'everything, then, that the Oath stipulates in regard to sexual continence agrees with the tenets of Pythagorean ethics, *in fact with the ideals of these philosophers alone*' (our italics) (77).

Besides noting the suggestion that, in ancient Greece, 'the individual who was known to value his own sexual satisfaction highly was regarded with suspicion as a potential lawbreaker and an unreliable friend (78)', and that concupiscence on the part of the physician is condemned in the non-Pythagorean *On Decorum* (79), it is to be underlined that the Pythagoreans were not alone in condemning sodomy. For example, Athenian law refers to sodomy as making traffic of the shame of one's body and debarbs any citizen who practiced it from the exercise of his civil rights because 'the man who has made traffic of the shame of his own body . . . would be ready to sell the common interests of the city also (80)'. The text of the law is as follows:

If any Athenian shall have prostituted his body, he shall not be permitted to become one of the nine archons, nor to discharge the office of priest, nor to act as an advocate for the state, nor shall he hold any office whatsoever, at home or abroad, whether filled by lot or by election; he shall not take part in debate, nor be present at the public sacrifices; when the citizens are wearing garlands, he shall wear none; and he shall not enter within the limits of the place that has been purified for the assembling of the people. If any man

who has been convicted of prostitution act contrary to these prohibitions, he shall be put to death (81).

Although the laws against it constitute perhaps the most important evidence indicating that homosexuality was neither accepted nor condoned by all in Athenian society, other evidence is found in the writings of several authors (82). Plato and Aristotle, in some passages, indicate that they considered homosexuality as being against nature:

Whether these matters are to be regarded as sport, or as earnest, we must not forget that this pleasure (i.e., sexual pleasure) is held to have been granted by nature to male and female when conjoined for the work of procreation; the crime of male with male, or female with female, is an outrage on nature and a capital surrender to lust of pleasure (83).

Besides those things however which are naturally pleasant . . . there are other things, not naturally pleasant, which become pleasant either as a result of arrested development or from habit, or in some cases owing to natural depravity . . . Other morbid propensities are acquired by habit, for instance . . . sexual perversion. These practices result in some cases from natural disposition, and in others from habit, as with those who have been abused from childhood (84).

In Polybius we find:

Agathocles in his early youth was a common prostitute, ready to yield himself to the most debauched, a jackdaw, a buzzard (lit., 'very lecherous'), who would right about face to anyone who wished it (lit., 'place his behind in front of anyone who wanted it') (85).

And Aristophanes says:

He never was found in the exercise-ground, corrupting the boys: he never complied
With the suit of some dissolute knave, who loathed that the vigilant lash of the bard should chide
His vile effeminate boylove (86).

As for the fact that, for the Pythagoreans, free-born people and slaves were on equal footing and that, therefore, this would explain the language of the Oath that protects also the slaves of the household from the lecherous physician, Athenian law offered protection from sexual abuse to slaves:

If any Athenian shall outrage a free-born child, the parent or guardian of the child shall prosecute him before the Thesmothetae, and shall demand a specific penalty. If the court condemn the accused to death, he shall be delivered to the constables and put to death the same day. If he be condemned to pay a fine, and be unable to pay the fine immediately, he must pay within eleven days after the trial, and he shall remain in prison until payment is made. *The same action shall hold against those who abuse the persons of slaves* (our italics) (87).

It is evident, therefore, that the Pythagoreans were not alone in condemning pederasty; nor can the Hippocratic Oath be said to agree with the ideals of the Pythagoreans alone in regard to sexual continence. It would appear more logical to conclude that the Oath reflected, in this case, commonly held beliefs that, even if not espoused by everyone, were sufficiently widespread to be incorporated into the laws. This being the case, the assumption that the Oath's prohibitions concerning sexual behavior in the patient's house could only be of Pythagorean origin seems unwarranted.

5. Confidentiality

The Oath enjoins the physician to keep to himself all that he may 'see or hear in the course of the treatment or even outside of the treatment in regard to the life of men, which in no account one must spread abroad.' Edelstein finds the last part of the sentence ('which in no account one must spread abroad') strange ('the latter phrase in particular has always seemed strange') and thinks that it can be explained by the fact that the Pythagoreans were secretive and taciturn. He then concludes, 'certainly if the doctor who promises not to talk about anything that he may see or hear is to be placed in any philosophical school, it must be the Pythagorean (88)'.

The point is that we do not need to place physician confidentiality in any philosophical school. Confidentiality is simply what one expects from a physician. In fact, advice to this effect is found not only elsewhere in the Hippocratic Corpus (in *The Physician*, it is stated that the physician should be 'silent (89)'; in *On Decorum*, that he should not 'gossip to laymen, but say only what is absolutely necessary (90)', but also in the physicians' code of other ancient cultures as well (in the 'Oath of Initiation' of the *Caraka Samhita* (91), and, arguably, in the profiles of the good and bad physicians in Aztec medicine (92) – see below). It is evident that, in classical times, the average patient in Greece expected physician confidentiality as the ancient Hindu or Aztec patient did.

It would appear, therefore, that the physician's obligation to keep secret his knowledge about his patients did not derive from any particular philosophical school; accordingly, to insist on a Pythagorean derivation of the Oath's injunction concerning confidentiality seems to be unwarranted.

6. Relation with teachers

Even if the principles supporting the special relation

between teacher and pupil mentioned in the Oath were found only among the Pythagoreans, 'one would hesitate', as Edelstein recognizes, 'to claim Pythagorean origin for the covenant by reason of one feature only, even if it be the main feature of this document (93)'. It can be shown, however, that we do not need to invoke a Pythagorean derivation even in this case.

The elements defining the teacher-pupil relation according to the Oath are the following:

- a. the pupil must consider the teacher equal to his parents;
- b. the pupil is asked to share his life with the teacher and to support him with money if need be;
- c. the pupil vows to hold the teacher's children as brothers;
- d. the pupil will teach medicine to his own sons, to those of the teacher, and to pupils 'who have signed the covenant and have taken the oath according to medical law, but to no one else.'

As pointed out by Jones (94), we know from Plato that physicians taught medicine to their sons (95), and this could have encouraged the development of a father-son relation between teacher and pupil when, later, the teacher was no longer the biological father of the pupil. Galen reports that the Asclepiads (96) were for generations the sole possessors of medical knowledge and that they taught only members of their clan (97); it is likely that, to reinforce the feeling of belonging to the clan, the pupils would be encouraged to consider the teacher as a father. Later, the Asclepiads also taught pupils who did not belong to the clan (98) and it is logical to think that the same attitude toward their teachers would be requested from them (99). In addition, it has been stated that no consider the teacher as a father was part of the Western cultural tradition at least until the time of the Sophists (100). Moreover, the fact that the same concept that the teacher should be considered as a father is likewise found in the *Caraka Samhita* also suggests that the notion is not so unusual that only the Pythagorean origin of the Oath could explain it:

The teacher then should instruct the disciple in the presence of the sacred fire, Brahmanas and physicians (saying):

... Thou shalt dedicate thyself to me and regard me as thy chief. Thou shalt be subject to me and conduct thyself for ever for my welfare and pleasure. Thou shall serve and dwell with me *like a son* (our italics) or a slave or a supplicant ... Acting either at my behest or otherwise, thou shalt conduct thyself for the achievement of thy teacher's purpose alone, to the best of thy abilities (101).

It is evident that the *Caraka Samhita* reflects the same notion of dependence and of father-son relation between pupil and teacher although, because of

cultural differences, the expression 'or slave or a supplicant' is also introduced.

As for the financial help that the pupil was to provide to the teacher, it may have been, as pointed out by Jones, one of the promises that were couched in 'extravagant language ... but which were intended to be interpreted in the spirit rather than in the letter (102)'. It is of interest that the same notion that the teacher must be helped, financially if necessary, by the pupil, is also mentioned in the *Caraka Samhita* as shown above ('Thou shalt ... conduct thyself for ever for my welfare ...').

The commitment of the pupil to regard his teacher's sons as his brothers, as Edelstein acknowledges, 'naturally follows from the fact that the disciple acknowledges his master as his father'. The fact that the Pythagoreans 'considered themselves brothers and were believed, like brothers, to have divided their earthly goods among themselves (103)', appears to be irrelevant for the question at hand.

Finally, the promise of the pupil concerning the way he would in turn teach medicine is simply in conformity with the way medicine was taught at the time, when physicians, as mentioned above, usually taught their own sons (104) as well as pupils who did not belong to the clan or guild (105).

It would appear, therefore, that, the relations between pupil and teacher do not need a Pythagorean explanation and, therefore, that the assumption of a necessary Pythagorean origin of the precept is unwarranted.

Discussion

It is evident that, in antiquity, independently of Pythagorean philosophy, there was a considerable body of opinion upholding the tenets of the Hippocratic Oath. As the main thrust of Edelstein's argument was that *only* the Pythagoreans held the beliefs reflected in the Oath, his conclusion that the document could only be Pythagorean is unjustified.

There is no doubt that, as Edelstein has shown, many beliefs were shared by the Pythagoreans and by the author of the Oath but this does not prove direct derivation any more than the existence of beliefs shared by Pythagoreanism and Christianity proves the derivation of the latter from the former. In addition, the fact that the physician who took the Oath, although promising to abstain from doing lithotomies, fully intended to practice surgery (which was in violation of Pythagorean tenets), suggests that the Oath *could not be a Pythagorean document*.

This point alone would be sufficient, in our opinion, to call into question the Pythagorean origin

of the Oath, but there are others as well. As it has been pointed out (106), the Pythagorean concern for secrecy and ascetism supports the assertion that the members of the sect were not interested in personal renown and yet the Oath says that 'If I fulfil this Oath and do not violate it, may it be granted to me . . . (to be) honored with fame among all men for all time to come'. In addition, according to Diogenes Laertius, Pythagoras 'advised his disciples . . . not to call the gods to witness', in other words, not to take oaths, 'man's duty being rather to strive to make his own word carry conviction (107)'.

In spite of this, the student (allegedly Pythagorean) not only would have taken the Oath (108), but would have started by calling the gods as witnesses.

Therefore, as the evidence adduced by Edelstein does not warrant the assumption that the Oath is a Pythagorean document and the points just discussed contradict such an assumption, we must conclude that the Oath was not a Pythagorean document and that the features common to it and to Pythagorean philosophy are coincidental.

If the Oath was not a Pythagorean manifesto, then what was it? First of all, there is no need to believe that it had to be the expression of any particular philosophical school. The Oath simply reflected a common ethical standard, a popular morality (109) that the physician was expected to follow (110); in other words, it reflected the common morality of the patients (111) and not the moral tenets of any particular philosophical school, and surely not of the Pythagorean (112).

Because of the special access that the physician has to patients' secrets and to the most intimate parts of their bodies, it is logical to think that they would expect him to behave in accordance with certain commonly held ethical standards and ideals. The Hippocratic Oath simply reflects this fact. We have examples of similar oaths and codes. One of them, which does not apply only to physicians and, as far as we know, has no relation to Pythagorean doctrine, contains several of the principles upheld by the Oath. It was found in an inscription, of around 100 B.C., at Philadelphia, in Lydia (113), in the shrine of the goddess Agdistis (114):

Let men and women, slave and free, when coming into this shrine swear by all the gods that they will not deliberately plan any evil guile, or baneful poison against any man or woman; that they will neither know nor use harmful spells; that they will neither turn to nor recommend to others nor have a hand in love-charms, abortives, contraceptives, or doing robbery or murder; that they will steal nothing but will be well-disposed to this house, and if any man does or purposes any of these things they will not keep silence but will reveal it and avenge. A man is not to have relations

with the wife of another, whether a free woman or a married slave, or with a boy, or with a virgin, or to counsel this to another. . . Let no woman or man who do the aforementioned acts come into this shrine; for in it are enthroned mighty deities, and they observe such offenses, and will not tolerate those who transgress their commands . . . These commands were set up by the rule of Agdistis, the most holy guardian and mistress of this shrine. May she put good intentions in men and women, free and slave alike, that they may abide by what is here inscribed; and may all men and women who are confident of their uprightness touch this writing, which gives the commandments of the god, at the monthly and at the annual sacrifices in order that it may be clear who abides by them and who does not. O savior Zeus, hear our words, and give us a good requital, health, deliverance, peace, safety on land and sea (115).

If such principles applied to the worshippers of the goddess, it is evident that they must have applied also to physicians, at least to those among them who worshipped Agdistis (116).

Other ethical codes for physicians, not necessarily in the form of an oath, are found in other cultures and they also contain many of the elements of the Hippocratic Oath although, as is to be expected, they also differ in many respects. In Hindu medicine, for example, in the *Caraka Samhita*, the following text is the first part of an 'Oath of Initiation':

13. (1) The teacher then should instruct the disciple in the presence of the sacred fire, Brahmanas and physicians (saying):
- (2) Thou shalt lead the life of a bachelor, grow thy hair and beard, speak only the truth, eat no meat, eat only pure articles of food, be free from envy and carry no arms. There shall be nothing that thou oughtest not do at my behest except hating the king or causing another's death or committing an act of great unrighteousness or acts leading to calamity.
- (3) Thou shalt dedicate thyself to me and regard me as thy chief. Thou shalt be subject to me and conduct thyself for ever for my welfare and pleasure. Thou shalt serve and dwell with me like a son or a slave or a suppliant. Thou shalt behave and act without arrogance and with care and attention, and with undistracted mind, humility, constant reflection and with ungrudging obedience. Acting either at my behest or otherwise, thou shalt conduct thyself for the achievement of thy teacher's purpose alone, to the best of thy abilities.
- (4) If thou desirest success, wealth and fame as a physician and heaven after death, thou shalt pray for the welfare of all creatures beginning with the cows and Brahmanas.
- (5) Day and night, however though mayest be engaged, thou shalt endeavor for the relief of patients with all thy heart and soul. Thou shalt not commit adultery even in thought. Even so, thou shalt not covet other's possessions. Thou shalt be modest in thy attire and appearance. Thou shouldst not be a drunkard or a sinful

man nor shouldst thou associate with the abettors of crime. Thou shouldst speak words that are gentle, pure and righteous, pleasing, worthy, true, wholesome and moderate. Thy behavior must be in consideration of time and place and heedful of past experience. Thou shalt act always with a view to the acquisition of knowledge and fullness of equipment.

- (6) No persons, who are haters of the king or who are haters of the public shall receive treatment. Similarly, those that are very unnatural, wicked and miserable character and conduct, those who have not vindicated their honor and those that are on the point of death and similarly women who are unattended by their husbands or guardians shall not receive treatment.
- (7) No offering of presents by woman without the behest of her husband or guardian shall be accepted by thee. While entering the patient's house, thou shalt be accompanied by a man who is known to the patient and who has his permission to enter, and thou shall be well-clad and bent of head, self-possessed, and conduct thyself after repeated consideration. Thou shalt thus properly make thy entry. Having entered, thy speech, mind, intellect and senses shall be entirely devoted to no other thought than that of being helpful to the patient and of things concerning him only. The peculiar customs of the patient's household shall not be made public. Even knowing that the patient's span of life has come to its close, it shall not be mentioned by thee there, where if so done, it would cause shock to the patient or to others.
- (8) Though possessed of knowledge one should not boast very much of one's knowledge. Most people are offended by the boastfulness of even those who are otherwise good and authoritative (117).

In the *Sushruta Samhita*, we find that the physician was to follow these principles:

Thou shall renounce lust, anger, greed, ignorance, vanity, egotistic feelings, envy, harshness, niggardliness, falsehood, idleness, nay all acts that soil the good name of a man. In proper season thou shall pare thy nails and clip thy hair and put on the sacred cloth, dyed brownish yellow, live the life of a truthful, self-controlled anchorite and be obedient and respectful toward thy preceptor . . . Thou shall help with thy professional skill and knowledge, the Brahmanas, thy elders, preceptors and friends, the indigent, the honest, the anchorites, the helpless and those who shall come to thee (from a distance), or those who shall live close by, as well as thy relations and kinsmen (to the best of thy knowledge and ability), and thou shall give them medicine (without charging for it any remuneration whatever), and God will bless thee for that (118).

And these are the profiles of the good and bad male physicians according to the Aztecs:

The physician (is) a curer of people, a restorer, a provider of health.

The good physician (is) a diagnostician, experienced – a knower of herbs, of stones, of trees, of roots. He has (results of) examinations, experience, prudence. (He is)

moderate in his acts. He provides health, restores people, provides them splints, sets bones for them, purges them, gives emetics, gives them potions; he lances, he makes incisions in them, stitches them, revives them, envelopes them in ashes.

The bad physician is a fraud, a half-hearted worker, a killer with his medicines, a giver of overdoses, an increaser (of sickness); one who endangers others, who worsens sickness; who causes one to worsen. (He pretends to be) a counselor, advised, chaste. He bewitches; he is a sorcerer, a soothsayer, a caster of lots, a diagnostician by means of knots. He kills with his medicines; he increases (sickness); he seduces women; he bewitches them (199).

The Aztecs also developed profiles of the good and bad woman physician:

The physician (is) a knower of herbs, of roots, of trees, of stones; she is experienced in these. (she is) one who has (the results of) examinations; she is a woman of experience, of trust, of professional skill: a counselor.

The good physician is a restorer, a provider of health, a reviver, a relaxer – one who makes people feel well, who envelopes one in ashes. She cures people; she provides them health; she lances them, she bleeds them – bleeds them in various places, pierces them with an obsidian lancet. She gives them potions, purges them, gives them medicine. She cures disorders of the anus. She anoints them; she rubs, she massages them. She provides them splints; she sets their bones – she sets a number of bones. She makes incisions, treats one's festering, one's gout, one's eyes. She cuts (growths from) one's eyes.

The bad physician (pretends to be) a counselor, advised, a person of trust, of professional knowledge. She has a vulva, a crushed vulva, a friction-loving vulva. (She is) a doer of evil. She bewitches – a sorceress, a person of sorcery, a possessed one. She makes on drink potions, kills people with medications, causes them to worsen, endangers them, increases sickness, makes them sick, kills them. She deceives people, ridicules them, seduces them, perverts them, bewitches them, blows (evil) upon them, removes an object from them, sees their fate in water, reads their fate with cords, casts lots with grains of maize, draws worms from their teeth. She draws paper – flint – obsidian – worms from them; she removes these from them. She deceives them, perverts them, makes them believe (120).

It is possible that codes for physicians existed in other ancient societies and that they have not reached us.

Conclusions

The evidence suggests that the Hippocratic Oath was an ethical code for physicians that reflected common morality, i.e. the ethical principles that, without necessarily belonging to any philosophical school, were accepted by the patients. As all moral codes, it was a target to approach, a goal to aspire to, an aim

not always, perhaps rarely, reached. It is a description of the ideal behavior of the ideal physician. Because, however, ideals always collide with the realities of everyday life, we may expect that many physicians, even among those who took the Oath, did not live up to its principles. We have no reason to be astonished by this and we do not have to try to find an explanation except in the weakness of human nature. In addition, most probably, not all physicians took the Oath or agreed with its principles and it is possible that there were current several forms of it and that only by accident did the text that we know become the Hippocratic Oath (121).

The first certain reference to the Oath of Hippocrates outside the Corpus is found in Scribonius Largus, a Roman physician who lived in the first half of the first century A.D., who states:

Hippocrates, founder of our profession, to inspire human feelings in the minds of the students, began his instruction with an oath in which it was decreed that no abortifacient be given or revealed to a pregnant woman by any physician (122).

It is of interest that Scribonius Largus felt that the Oath was written 'to inspire human feelings in the mind of the students', i.e. that it was an ethical code for the physician. The Pythagoreans are not mentioned.

References and notes

1. Edelstein L. The Hippocratic Oath: Text, Translation and Interpretation, Suppl. to the Bull Hist Med, No. 1. Baltimore: The Johns Hopkins Press, 1943. (Siegerist called the work 'epoch-making' (Siegerist H E. A History of Medicine. Oxford: Oxford University Press, 2 vols, II: 99).
2. Edelstein L. The Hippocratic Oath: Text, Translation and Interpretation, Suppl. to the Bull Hist Med, No. 1. Baltimore: The Johns Hopkins Press, 1943, reprinted in: Temkin O, Temkin C L, eds. Ancient Medicine, Selected Papers of Ludwig Edelstein. Baltimore: The Johns Hopkins Press, 1967: 53.
3. For example: Kudlien F. Medical Ethics and Popular Ethics in Greece and Rome. *Clio Medica* 1970; V: 91–121; Nickel D. Ärztliche Ethik und Schwangerschaftsunterbrechung bei den Hippokratern. *NTM* 1972; IX: 73–80; Harig G, Kollesch J. Der Hippokratische Eid: Zur Entstehung der antiken medizinischen Deontologie. *Philologus* 1978; CXXII: 157–176; Lichtenthaeler C. Der Eid des Hippocrates: Ursprung und Bedeutung. Köln: Deutscher Ärzte-Verlag, 1984: 279–286.
4. For example: Singer C. An Early Parallel to the Hippocratic Oath. *Gesnerus* 1951; VIII: 177–180; Siegerist H E. A History of Medicine. Oxford: Oxford University Press, 2 vols, II, 1961: 303; Phillips E D. Greek Medicine. London: Thames and Hudson, 1973: 116; Nutton V. Museum and Medical Schools, in Classical Antiquity. *History of Education* 1975; IV (1): 3–15. For a very recent example, see: Magner L N. A History of Medicine. New York: Marcel Dekker, 1992: 69. Darrel W. Amundsen (Amundsen D W. The Physician Obligation to Prolong Life: A Medical Duty without Classical Roots. *Hastings Center Report* 1978; VIII (4): 23–30.) says that 'Edelstein's thesis is tempting and, in my opinion, the most convincing so far advanced', although he adds, 'The Pythagorean origin of the Oath, however, should not be considered proved'. R. H. Feen (Feen R H. Abortion and exposure in ancient Greece. In: Bondeson W B et al, eds. Abortion and the Status of the Fetus. Dordrecht/Boston: D. Reidel, 1983: 283–300) says that Edelstein 'may not be too far off in his analysis'.
5. 'It would seem therefore that the ethical principles in the Oath were atypical of the medical profession and the moral values of ancient society as a whole' (Feen R H. Abortion and Exposure in Ancient Greece. In: Bondeson W B et al, eds. Abortion and the Status of the Fetus. Dordrecht/Boston: D. Reidel, 1983: 283–300); 'It is reasonable to say with absolute certainty (our underlining) that the Oath, taken as a whole, is an esoteric document that is often inconsonant with the larger picture of Greco-Roman medical ethics' (Amundsen D W. The Physician Obligation to Prolong Life: A Medical Duty without Classical Roots. *Hastings Center Report* 1978; VIII (4): 23–30.
6. Edelstein L. *op. cit.*, p. 62.
7. Edelstein L. *op. cit.*, p. 6.
8. Edelstein L. *op. cit.*, p. 13.
9. Edelstein L. *op. cit.*, p. 14.
10. Edelstein L. *op. cit.*, p. 35.
11. Edelstein L. *op. cit.*, p. 35.
12. Edelstein L. *op. cit.*, p. 38.
13. Edelstein L. *op. cit.*, p. 43.
14. Edelstein L. *op. cit.*, p. 45.
15. Edelstein L. *op. cit.*, p. 46.
16. Edelstein L. *op. cit.*, p. 53.
17. Gourevitch D. Suicide Among the Sick in Classical Antiquity. *Bull Hist Med* 1969; XLIII: 501–518.
18. Edelstein L. *op. cit.*, p. 17.
19. *Philolaus of Croton or Tarentum* (b. c. 470 B.C.), a Pythagorean contemporary of Socrates.
20. This is how W. R. M. Lamb translates the sentence. See: Plato. *Phaedo*, translated by W R M Lamb. The Loeb Classical Library. London: William Heinemann, 1913: 215.
21. Plato. *Phaedo*, 61e, 62b–c. In: Hamilton E, Cairns H, eds. *The Collected Dialogues of Plato*. Princeton: Princeton University Press, 1961: 44, 45. (Translation by Hugh Tredennick). *The position of Plato concerning suicide was that it was justified only in extreme circumstances but not if done because of 'sloth and unmanly cowardice'.* (See: Plato. *Laws* IX: 873C).
22. Aristotle. *Nicomachean Ethics* 1116a, 12ff. (Translated by David Ross). In: *The Nicomachean Ethics of Aristotle*. London: Oxford University Press, 1925: 67.
23. Aristotle. *Nicomachean Ethics* 1138a, 9ff. (Translated by David Ross). In: *The Nicomachean Ethics of Aristotle*. London: Oxford University Press, 1925: 134.
24. Plutarch. *Lives, Agis and Cleomenes* XXXI: 4–5. (Translation by Bernadotte Perrin) The Loeb Classical Library. Cambridge, MA: Harvard University Press, 1921.
25. Diogenes Laertius X, 119. (Translation by R. D. Hicks) The Loeb Classical Library. London: William Heinemann, 1931.
26. Lucretius. *De Rerum Naturae* III: 79–83. Et saepe usque adeo, mortis formidine, vitae/percipit humanos odium lucisque videndae/ut sibi consciscant maerenti pectore letum/obliti fontem curarum hunc esse timorem. (Translation by P. Priori).
27. The rarity may be explained, at least in part, by the fact that, in the Roman world, slave-physicians were common, and for them to refuse to obey an order of the master, even if it concerned a request for poison for his own destruction, would have been very difficult. 'The contempt with which, for the most part, Romans regarded their physicians, because the

- latter were either slaves or Greeks and present to carry out orders, may sometimes explain the ease with which they exacted this very special service from them'. (Gourevitch D. Suicide among the Sick in Classical Antiquity. *Bull Hist Med* 1969; XLIII: 501–518).
28. Hadrian. *Scriptores Historiae Augustae* XXIV: 13. *The slaves of Marcellinus also refused to help him to commit suicide but it would appear that they refused not for moral scruples but because they were afraid of being accused of murdering their master* (Seneca. *Ad Lucilium epistulae morales* LXXVII: 7).
 29. 'I considered that it was not consonant with my code to cause anybody's death, and I was taught that medicine was to be used to heal men rather than cause their death'. (Apuleius. *The Golden Ass* X: 11) (Translation by P. Prioreschi). Edelstein (Edelstein. *op. cit.*, pp. 13 and 14, footnotes 23 and 24) seems to dismiss this episode by pointing out that the same physician had not previously rejected the request for poison on general grounds (Apuleius. *The Golden Ass* X: 9). It is evident, however, that the fact that he made such a statement in a court of law indicates that it reflected commonly accepted beliefs.
 30. Concerning murder, sometimes physicians refused to participate in poisoning schemes even at the risk of their lives. Herodian (III: 15) tells us that Caracalla tried to persuade the doctors of his father Severus to hasten his demise. They refused and, when the old man died, Caracalla had them killed.
 31. *Encyclopedia of Religion and Ethics*. Hastings J, ed. Edinburgh: T. & T. Clark, 13 vols., 1908–1926, XII: 30.
 32. Edelstein L. *op. cit.*, p. 13.
 33. 'This is why the state exacts a penalty; suicide is punished by certain marks of dishonor, as being an offence against the state' (Aristotle. *Nicomachean Ethics* V (xi) 3–4). (Translation by H. Rackham. *The Loeb Classical Library*. Cambridge MA: Harvard University Press, 1934. *That there were laws concerning rites of purification and of burial of suicides is also mentioned by Plato* (Plato. *Laws* IX: 873D).
 34. 'And when a man kills himself, the hand that did the deed is buried apart from the body' (Aeschines. *Against Ctesiphon* 244. (Translation by C. D. Adams. *The Loeb Classical Library*. London: William Heinemann, 1919). See also: Cooper J M. Greek Philosophers on Euthanasia and Suicide. In: Brody B A, ed. *Suicide and Euthanasia: Historical and Contemporary Themes*. Dordrecht: Kluwer Academic, 1989: 9–38 (24).
 35. Edelstein dismisses the importance of Athenian laws against suicide because they 'have been rightly explained... as directed against those who committed suicide when still able to bear arms' (Edelstein L. *op. cit.*, p. 15, footnote 29). Even if suicide was condemned because it was a way to escape obligations toward the state, it is not farfetched to think that it could have been forbidden also because it was an escape from obligations toward family, city, creditors, etc., whether the suicide was sick or not. In fact, in Thebes suicide for any reason was forbidden (Hirzel R. *Der Selbstmord*. *Archiv für Religionswissenschaft* 1908; XI: 75–104; 243–284; 417–476; (268); Edelstein asserts that this was because Philolaus, a Pythagorean, lived there for some time, and 'it seems probable that the well-known theory of the famous philosopher was projected into the legislation of Thebes' (Edelstein L. *op. cit.*, p. 20, footnote 49). There is no evidence that this was the reason for the law. In any case, the crucial point for our discussion is that, for whatever reason, there were laws against suicide, in other words, for whatever reason, suicide was condemned.
 36. *Servii Grammatici qui feruntur in Vergilii carmina commentarii*, recensuerunt Georg Thilo et Hermann Hagen, Lipsiae, in aedibus B. G. Teubneri, 3 vols., 1884, I, p. 626, commentary of verse 602 of Aen. XII.
 37. On Flesh IX. *Littre* VIII: 612.
 38. Edelstein, after having acknowledged the opposition to suicide of Aristotle and, possibly, Epicurus, says: 'It is ... important to stress that Aristotelian and Epicurean opposition to suicide did not involve moral censure. If men decided to take their lives, they were within their rights as sovereign masters of themselves. The Aristotelian and Epicurean schools condoned suicide' (Edelstein L. *op. cit.*, p. 17). The passage is unclear. It is not readily apparent why it should be important that the Aristotelian and Epicurean opposition to suicide 'did not involve moral censure' (the Oath does not spell out either on which ground the prohibition rests). It is not readily evident, in the context, what the second sentence is supposed to convey. Finally, the third sentence does not seem to agree with the first nor with at least some of the evidence (e.g., Lucretius' quotation).
 39. Galen. *An animal sit quod in utero geritur* v, K XIX: 179–180. *The work is of uncertain authenticity*.
 40. For a discussion on this subject, see: Moissidés. *Contribution à l'étude de l'avortement dans l'antiquité grecque*. *Janus* 1922; XXVI: 58–85.
 41. Aristotle. *Politics* VII, xiv, 1335b: 24–26. *In Generation of Animals, it is stated that the fetus is alive and that it acquires the 'sentient Soul' during its development* (See: Aristotle. *Generation of Animals* II (iii): 736a–b).
 42. *Whether the passage can be attributed to Lysias is debatable, but the text is nevertheless of interest because it suggests (together with other references to the existence of such a document by Lysias) that, in Lysias' time, there were discussions about abortion. For a review of the pertinent literature on this passage see: Nardi E. Procurato aborto nel mondo greco romano*. Milano: Giuffrè, 1971: 82–116.
 43. *Quoted by: Nardi E. Procurato aborto nel mondo greco romano*. Milano: Giuffrè, 1971: 86–87. (Translation by P. Prioreschi).
 44. Cicero. *Pro Cluentio* XII. 'Quo illa pretio accepto multisque praeterea muneribus ... spem illam, quam in alvo commendatam a viro continebat, victa avaritia ... vendidit'. (Translation by P. Prioreschi). *The condemnation could be considered as due to the betrayal of the husband's trust more than to the abortion itself, but, by calling the fetus 'spem' (that is, hope, prospect, promise of future achievements), Cicero seems to indicate condemnation of abortion per se. For a discussion about the designation of the baby to be born as 'spes', see: Nardi E. Procurato aborto nel mondo greco romano*. Milano: Giuffrè, 1971: 354–360.
 45. Cicero. *Pro Cluentio* XI. (Translation of H. Grose Hodge) *The Loeb Classical Library*. London: William Heinemann, 1927.
 46. Juvenal. *Saturae* VI: 595–597. 'Tantum artes huius, tantum medicamina possunt, quae steriles facit atque homines in ventre necandos/conducit'. (Translation by P. Prioreschi).
 47. Ovid. *Amores* II (xiv): 27–28, 35–40. (Translation by Grant Showerman) *The Loeb Classical Library*. London: William Heinemann, 1921.
 48. '... numquam more aliarum ... tumescentem uterum abscondisti quasi indecens onus, nec intra viscera tua conceptas spes liberorum elisisti ...'. Seneca. *Dialogues, Ad Helvetiam matrem de consolatione* III (xvi): 3. *Quoted by: Nardi E. Procurato aborto nel mondo greco romano*. Milano: Giuffrè, 1971: 247. (Translation by P. Prioreschi).
 49. *The Hippocratic Oath reads, literally: 'I shall not give a woman an abortive pessary.'*
 50. Soranus. *Gynecology* XIX: 60. (Translated by Owsei Temkin with the assistance of Nicholson J. Eastman, Ludwig

- Edelstein, and Alan F. Guttmacher) Baltimore: The Johns Hopkins University Press, 1956: 63.
51. *Discussing the characteristics of the good midwife, he says: 'She must not be greedy for money, lest she give an abortive wickedly for payment'* (Soranus. Gynecology I (ii): 4. (Translated by Owsei Temkin with the assistance of Nicholson J. Eastman, Ludwig Edelstein, and Alan F. Guttmacher) Baltimore: The Johns Hopkins University Press, 1956: 7).
 52. *Curiously enough, Edelstein reads in this passage that Soranus 'had little patience with these colleagues of his', that is, with those who rejected abortion under all circumstances, and that 'he resorted to abortion whenever it seemed necessary, much as he deprecated it if performed for no other reason than the wish to preserve beauty or to hide the consequence of adultery'* (Edelstein L. op. cit., p. 14). *It is evident that, in this passage, Soranus neither shows 'little patience' with those condemning abortion, nor shows evidence that 'he resorted to abortion whenever it seemed necessary, much as he deprecated ... etc.'* What he says is that abortion should not be performed except when the safety of the mother requires it. The condemnation in other cases is clear.
 53. On the Nature of the Child XIII. Littré VII: 490. *For a discussion of this case see: Pioreschi P. Quandoque bonus dormitat Hippocrates: Induced abortion and embryos' age in the Hippocratic Corpus. Acta Belgica Historiae Medicinae 1992; V (4): 181–184.*
 54. Soranus. Gynecology I (xix): 60. (Translated by Owsei Temkin with the assistance of Nicholson J. Eastman, Ludwig Edelstein, and Alan F. Guttmacher) Baltimore: the Johns Hopkins University Press, 1956: 62. *Undoubtedly, to us the Lacedaemonian leap seems to be a prescription for abortion.*
 55. *For a discussion of this topic, see: Nardi E. Procurato aborto nel mondo greco romano. Milan: Giuffrè, 1978: 72–82.*
 56. *For the position of other ancient authors on the question of abortion, see: Nardi E. Procurato aborto nel mondo greco romano. Milano: Giuffrè, 1971, passim.*
 57. *It has been suggested that, in reality, the Hippocratic Oath does not prohibit abortion but only pesson phtorion, that is 'toxic (or damaging, or abortive) pessary' presumably because of the ulcerations that they may have caused* (Riddle J M. Oral Contraceptives and Early-term Abortifacients during Classical Antiquity and the Middle Ages. Past and Present No 132: 3–32, August 1991). *In this context, however, it is quite evident that phtorion means abortive and it has been so interpreted since antiquity (see, for example, the quotation from Scribonius Largus reported at the end of this paper).*
 58. Edelstein L. op. cit., p. 29. *The alternate translation is by W. H. S. Jones, who, however, in a footnote says: 'Perhaps, "I will not use the knife even on sufferers from stone,"' see: Jones W H S. The Doctor's Oath: An Essay in the History of Medicine. Cambridge: At the University Press, 1924: 11. See below for Jones' translation for the Loeb Library.*
 59. Adams F. The Genuine Works of Hippocrates. London: The Sydenham Society, 2 vols., 1849, II: 780.
 60. 'Je ne pratiquerai pas l'opération de la taille'. Littré IV: 631.
 61. 'Non opererò colorò che soffrono del male della pietra' (Pazzini A, Baffioni G. 'Ancora per una più precisa traduzione e interpretazione del "Giuramento d'Ippocrate"'. Pagine di Storia della Medicina 1972; XVI: 83–89).
 62. 'Ich werde niemals Kranke schneiden, die an Blasestein leiden' (Deichgräber K. Der hippokratische Eid: Text griechisch und deutsch – Interpretation – Nachleben. Stuttgart: Hippokrates Verlag, 1983: 15).
 63. 'Auch werde ich den Blasenstein nicht operieren' (Müri W. Der Arzt im Altertum: Griechische ind lateinische Quellenstücke von Hippokrates bis Galen mit der Übertragung ins Deutsche. München: Ernst Heimeran Verlag, 1962: 9).
 64. *Others have translated the passage in a similar way: an Arabic translation of around the tenth century renders it: 'I will not operate on those who have stone in the bladder'; a Latin translation of the sixteenth century says: 'laborantis lapillo haudquaquam excisurum'. (Jones W H S. The Doctor's Oath: An Essay in the History of Medicine. Cambridge: At the University Press, 1924: 33, 35). Jones, in spite of his translation for the Loeb Library (see below), acknowledges, in The Doctor's Oath, that the sentence could mean 'As to operating, I, furthermore, will not operate for stone'. (Jones W H S. The Doctor's Oath: An Essay in the History of Medicine. Cambridge: At the University Press, 1924: 47). For a discussion on the translation of the sentence see: Kudlien F. Zwei Interpretationen zum Hippokratischen Eid. Gesnerus 1978; XXXV: 253–263.*
 65. *It must be underlined that Edelstein is not the only one to translate the sentence in a way that indicates the forbidding of the practice of surgery. For example, W. H. S. Jones, in his translation for the Loeb Library, renders it 'I will not use the knife, not even, verily, on sufferers from stone'. (Hippocrates (translated by W. H. Jones) The Loeb Classical Library. Cambridge MA: Harvard University Press, 1923 – see above for his translation in The Doctor's Oath); J. Chadwick et W. N. Mann render it 'I will not cut, even for the stone'. (Hippocratic Writings. Lloyd G E R, ed. Harmondsworth: Penguin Books, 1978: 67); Nittis translates it 'I will not cut, indeed not even sufferers from stone'. (Nittis S. The Hippocratic Oath in Reference to Lithotomy: A New Interpretation With Historical Notes on Castration. Bull Hist Med 1939; VII: 719–728); also, a Latin translation of the fourteenth century reads: 'non incidam autem neque lapiditatem patientes'. (Jones W H S. The Doctor's Oath: An Essay in the History of Medicine. Cambridge: At the University Press, 1924: 37).*
 66. *In the Corpus there are several references to bladder calculus (e.g., Diseases I, VI; Diseases IV, LV; Airs Waters Places IX) but lithotomy is mentioned only in the Oath.*
 67. *We do not know anything definite about the existence of specialists in the classical period but, as Edelstein says, 'it is hard to believe that in the Hippocratic period specialization was unknown' (Edelstein L. op. cit., pp. 28–29, footnote 86). In addition, that specialization existed in antiquity is shown by the passage of Herodotus: 'The practice of medicine is so divided among them (that is, Egyptian physicians), that each physician is a healer of one disease and no more. All the country is full of physicians, some of the eye, some of the teeth, some of what pertains to the belly, and some of the hidden diseases'. (Herodotus II: 84). (Translation by A. D. Godley. The Loeb Classical Library. London: William Heinemann, 1920). The tradition of the operation of lithotomy being performed by non-physicians, that is, by 'such men as are engaged in this work', seems to have survived until modern times: up to the middle of the XIXth century, in the countryside of France, there were still itinerant charlatans operating for the stone (Lichtenthaeler C. Le serment d'Hippocrate: Analyse d'ensemble. Rev Med Suisse Romande 1980; C: 1001–1011), and Adams, in 1849, could write that in Scotland 'not perhaps much more than a hundred years ago, it was common for lithotomy to be performed by non-professional persons'. (Adams F. The Genuine Works of Hippocrates. London: The Sydenham Society, 2 vols., 1849, II: 778).*
 68. Edelstein L. op. cit., pp. 28, 29.
 69. Celsus. De Medicina VII: 26. (Translated by W. G. Spencer)

- The Loeb Classical Library. Cambridge MA: Harvard University Press, 1938: 431 ff.
70. Celsus. De Medicina VII: 26. The Loeb Classical Library. Cambridge MA: Harvard University Press, 1938: 428.
 71. Celsus. De Medicina VII: 26. (Translated by W. G. Spencer) The Loeb Classical Library. Cambridge MA: Harvard University Press, 1938: 427, 429. Aretaeus (Chronic Diseases II: iv) also describes the dangers of lithotomy.
 72. Koelbing H M. Zu Fridolf Kudliens 'Zwei Interpretationen zum Hippokratischen Eid'. Gesnerus 1979; XXXVI: 156–158; Ch. Lichtenthaeler. Le serment d'Hippocrate: Analyse d'ensemble. Rev Med Suisse Romande 1980; C: 1001–1011. Adams says: 'in the whole compass of ancient medical literature, there is not a single description of the operation by a person who had actually performed it . . . Galen . . . never once hints that he meddled with the operation . . . the descriptions of the operation given by Celsus and Paulus Aegineta are evidently copied'. (Adams F. The Genuine Works of Hippocrates. London: The Sydenham Society, 2 vols., 1849, II: 777).
 73. Littre IV: 617. In Internal Affections (XIV, XV, and XVII) are mentioned renal operations associated with renal calculi, but it is evident that the author describes incisions of peri-renal or para-renal abscesses.
 74. For a discussion of the dangers, difficulties, and risks of lithotomy as practiced in ancient times, see: Petrequin J E. Chirurgie d'Hippocrate. Paris: Imprimerie Nationale, 2 vols, 1877, I: 195–198.
 75. Pioreschi P. Possible Reasons for Neolithic Skull Trephining. Perspectives in Biology and Medicine 1991; XXXIV (2): 296–303.
 76. On Wounds in the Head, xxi.
 77. Edelstein L. *op. cit.*, p. 35.
 78. Dover K J. Greek Popular Morality in the Time of Plato and Aristotle. Berkeley: University of California Press, 1974: 209.
 79. On Decorum, V.
 80. Aeschines. Against Timarchus, 29–30. (Translation of Charles Darwin Adams) The Loeb Classical Library. Cambridge MA: Harvard University Press, 1919.
 81. Aeschines. Against Timarchus 21. (Translation of Charles Darwin Adams) The Loeb Classical Library. Cambridge MA: Harvard University Press, 1919.
 82. For a review of this subject, see: Pioreschi P, Brehm E J. Male Homosexuality in Classical Greece. Proceedings of the XXXIIIrd International Congress on the History of Medicine. Granada, 1992, in press.
 83. Plato. Laws 636c. (Translation by A. E. Taylor) In: Hamilton E, Cairns H, eds. The Collected Dialogues of Plato. Princeton: Princeton University Press, 1963. The same passage is translated by R. G. Bury (Loeb Classical Library) as follows: 'Whether one makes the observation in earnest or in jest, one certainly should not fail to observe that when male unites with female for procreation the pleasure experienced is held to be due to nature, but contrary to nature when male mates with male or female with female, and that those first guilty of such enormities were impelled by their slavery to pleasure.'
 84. Aristotle. Nicomachean Ethics VII (v): 1–3. (Translation by H. Rackham) The Loeb Classical Library. Cambridge MA: Harvard University Press, 1939. The Greek text on aphrodisia tois arresin, translated by Rackham as 'sexual perversion', literally means 'sexual pleasure with males'.
 85. Polybius. The Histories XII (15): 1–3. (Translation by W. R. Paton) The Loeb Classical Library. Cambridge MA: Harvard University Press, 1925.
 86. Aristophanes. The Wasps 1024–1027. (Translated by Benjamin Bickley Rogers) The Loeb Classical Library. Cambridge MA: Harvard University Press, 1924.
 87. Aeschines. Against Timarchus 16. (Translation of Charles Darwin Adams) The Loeb Classical Library. Cambridge MA: Harvard University Press, 1919.
 88. Edelstein L. *op. cit.*, pp. 37, 38.
 89. The Physician I. Littre IX: 204. Edelstein dismisses the importance of the passage by saying that the statement serves a utilitarian purpose whereas the Oath 'insists on secrecy not as a precaution but as a duty'. (Edelstein L. *op. cit.*, p. 37).
 90. On Decorum VII. (Translation by W. H. S. Jones) The Loeb Classical Library. Cambridge MA: Harvard University Press, 1923.
 91. The Caraka Samhita, the Sushruta Samhita, and the Bhela Samhita are the three main texts of Hindu naturalistic medicine. The first two were probably written soon after the beginning of our era but reflect a much earlier oral tradition. See: Pioreschi P. A History of Medicine, Vol I, Primitive and Ancient Medicine. Lewiston: The Edwin Mellen Press, 1991: 244ff.
 92. In these the bad physician 'pretends to be a counselor' but of course (or she) is not. It seems justified to assume that one of the virtues lacking in somebody who pretends to be a counselor is confidentiality.
 93. Edelstein L. *op. cit.*, p. 44.
 94. Jones W H S. The Doctor's Oath: An Essay in the History of Medicine. Cambridge: At the University Press, 1924: 56.
 95. Plato. Laws IV: 720b. Although, in this passage, the word *paidas* is often translated as 'pupils' or 'disciples' so that it reads 'the free-born doctors. . . instruct their own disciples' ((Translation by R. G. Bury) The Loeb Classical Library. Cambridge MA: Harvard University Press, 1926), the most common acception of *pais* is 'child' or 'son'; the passage, therefore, should read 'the free-born doctors. . . instruct their sons'.
 96. The Asclepiads, apparently, were a family (or clan) so called because they asserted that they were descendants of Asclepius through his son Podalirius. See: Jouanna J. Hippocrate de Cos et le sacré. Journal des Savants Janvier–Juin 1989: 3–22; Kallen H M. In: Aristotle: Politics and Poetics (Translated by Benjamin Jowett and S. H. Butcher) Norwalk, CT: The Easton Press, 1979 (reprint of 1964 edition) p. IX; Jones W H S. The Doctor's Oath: An Essay in the History of Medicine. Cambridge: Cambridge University Press, 1924: 44; Jones W H S. Hippocrates. Cambridge MA: Harvard University Press, 4 vols, 1923 xlii–xlii.
 97. Galen. De anatomicis administrationibus II (i) K II: 280.
 98. Hippocrates taught outside pupils for a fee; see: Plato. Protagoras: 311b. Medical fraternal societies may have later replaced the clan and it is possible that many physicians may have joined them. For a discussion of this possibility see: Nittis S. The Authorship and Probable date of the Hippocratic Oath: Linguistic and Philological Considerations of the *xyngraphe* with a Short History of Greek Fraternal Societies. Bull Hist Med 1940; VIII: 1012–1021; Kudlien F. Medical Ethics and Popular Ethics in Greece and Rome. Clio Medica 1970; V: 91–121.
 99. Because Galen "does not mention that they were made members of the family or forced to share any obligation", Edelstein, with an argument *ab absentia*, declares that Galen's passage cannot be taken as supporting the position that in Greece, especially in the early centuries, 'medicine like all other arts was passed from father to son in closed family guilds' and that 'what at a certain time these organizations began to receive outsiders into their midst, they . . .

- demanded from them full participation in the responsibilities of the 'real' children* (Edelstein L. *op. cit.*, pp. 40, 41). *For a criticism of Edelstein's position on this point, see: Pazzini A, Baffioni G. Ancora per una più precisa traduzione e interpretazione del 'Giuramento' d'Ippocrate. Pagine di Storia della Medicina* 1972; XVI: 83–89.
100. E. Hoffmann. Kulturphilosophisches bei den Vorsokratikern. *Neue Jahrbücher für Wissenschaft und Jugendbildung* 1929; V: 2–24. *See also: Lichtenthaeler C. Der Eid des Hippocrates: Ursprung und Bedeutung. Köln: Deutscher Ärzte-Verlag, 1984: 79–110, 285.*
 101. The Caraka Samhita. Translated by the Shree Gulabkunverba Ayurvedic Society, Jamnagar, India, 6 vols, 1947–49, V, p. 326.
 102. Hippocrates. The Loeb Classical Library. Cambridge MA: Harvard University Press, VI vol., 1923–1987, I, p. 295. *Jones adds in a footnote: 'Compare modern interpretations of marriage vows.'*
 103. Edelstein L. *op. cit.*, p. 46.
 104. Plato. *Laws IV: 720b.*
 105. Plato. *Protagoras: 311b.*
 106. Lichtenthaeler C. Le serment d'Hippocrate: Analyse d'ensemble. *Rev Med Suisse Romande C: 1001–1011.*
 107. Diogenes Laertius VIII: 22. Translated by R. D. Hicks. The Loeb Classical Library. London: William Heinemann, 1925.
 108. Edelstein says concerning this point: 'Still this hardly means that the Pythagoreans intended to ban all oaths and all invocations of divine witnesses. No Greek could ever have gone that far'. In addition, he mentions that Diodorus Siculus (X, 9, 2) 'expressly states (that), in the opinion of the school, an oath should be sworn only on rare occasions' and that the Pythagoreans took an oath of allegiance when they became members of the society. (Edelstein L. *op. cit.*, p. 53). *Because the Hippocratic Oath, however, mentions another oath and a covenant ('... who have signed a covenant and have taken an oath. ...') to be taken and signed by pupils who were not sons of teachers* (Edelstein L. *op. cit.*, p. 48, footnote 158), *the Pythagorean pupil who was not the son of a teacher and who decided to become a physician would have had to take at least three oaths (one as a Pythagorean, one as a pupil who was not the son of a teacher, and the third the Oath itself) and, in addition, to sign a covenant. This does not seem to agree either with Diogenes Laertius's or with Diodorus Siculus's passages.*
 109. Kudlien F. *Medical Ethics and Popular Ethics in Greece and Rome. Clio Medica* 1970; V: 91–121; *concerning Greek popular morality in general, see: Dover K J. Greek Popular Morality in the Time of Plato and Aristotle. Berkeley CA: University of California Press, 1974 (for a definition of popular morality, see pp. 1–5; for a discussion of Greek popular attitudes toward suicide see pp. 168–169; for a discussion of attitudes toward sexual continence see pp. 208–209 and 212–213).*
 110. Plato, in his *Laws*, proposes the following concerning poison and poisoning:

Any man administering a poison to another, or to persons employed by him . . . and convicted of the offense of poisoning shall, if a physician, suffer death, and if a layman, such penalty or fine as the court shall impose. (Plato. *Laws XI: 933c–d. In: Hamilton E, Cairns H, eds. The Collected Dialogues of Plato. Princeton: Princeton University Press, 1961: 1483–1484. (Translation by A. E. Taylor).*)

Because the penalty is more severe in the case of physicians, we must assume that Plato felt that physicians, in view of their professions, were bound to ethical standards more rigid than those of ordinary citizens.
 111. *It is of interest that the mistaken idea persists that suicide and abortion were universally accepted in ancient Greece and that, therefore, the Oath, even if not of Pythagorean derivation, was against the prevailing morals. See: Koelbing H M. Zu Fridolf Kudliens 'Zwei Interpretationen zum Hippokratischen Eid'. Gesnerus* 1979; XXXVI: 156–158.
 112. Kudlien F. *Zwei Interpretationen zum Hippokratischen Eid. Gesnerus* 1978; XXXV: 253–263; Harig G, Kollesch J. *Der Hippokratische Eid: Zur Entstehung der antiken medizinischen Deontologie. Philologus* 1978; CXXII: 157–176; Triebel-Schubert C. *Bemerkungen zum Hippokratischen Eid. Midizinhistorisches J* 1985; XX: 253–260; Lichtenthaeler C. *Der Eid des Hippocrates: Ursprung und Bedeutung. Köln: Deutscher Ärzte-Verlag, 1984: 287–292.*
 113. *The city had been founded only fifty years earlier and was part of the Attalid Empire based on Pergamum as capital. It shared the Pergamenean culture as a remote provincial town' (Singer C. An early Parallel to the Hippocratic Oath. Gesnerus VIII: 177–180.*
 114. *'Agdistis was a mother-goddess whose cult was widely spread in Anatolia, Egypt, and even in Attica, from the third century B.C. onward. Such a mother-goddess, under various titles, is characteristic of the numerous Anatolian cults of the time. She is often associated with a male deity, sometimes as (with?) Asclepius, but more often under other names. Generally her consort is subordinate but sometimes Agdistis is associated with Zeus' (Singer C. An Early Parallel to the Hippocratic Oath. Gesnerus 1951; VIII: 177–180). According to the myth, Agdistis was originally androgynous.*
 115. Singer C. *An Early Parallel to the Hippocratic Oath. Gesnerus* 1951; VIII: 177–180. *The author states that the text is given in Dittenberg W. Sylloge Inscriptionum Graecarum, 3rd edn., No 985, and that the English translation is from Nock A D. Conversion: The Old and the New in Religion from Alexander the Great to Augustine of Hippo. Oxford: Oxford University Press 1933: 216.*
 116. *Curiously enough, although such code of non-Pythagorean origin obviously undermines the assumption that the Hippocratic Oath can be explained only in Pythagorean terms, Sigerist considered it a confirmation of Edelstein's theory and says: 'This (Edelstein's) theory of the origin of the Oath is confirmed still further by . . . (the following) document . . . (the text of the Agdistis inscription follows). I do not think that there is any direct relation between this oath and the Hippocratic Oath, but the document is very important nevertheless, for it shows what ethical rules prevailed in certain religious circles'. (Sigerist H E. A History of Medicine, 2 vols, Oxford: Oxford University Press, 1951 and 1961, II: 303, 304).*
 117. The Caraka Samhita. Translated by the Shree Gulabkunverba Ayurvedic Society, Jamnagar, India, 6 vols, 1947–49, V: 326–327.
 118. *An English Translation of The Sushruta Samhita. Translated by Kaviraj Kunjalal Bhishagratna, Varanasi, India, 3 vols, 1963, I: 18, 19.*
 119. *Florentine Codex. Translated by Charles E. Dibble and Arthur J. O. Anderson, The University of Utah, Book 10, 1961: 30.*
 120. *Florentine Codex. Translated by Charles E. Dibble and Arthur J. O. Anderson, The University of Utah, Book 10, 1961: 53.*

121. Jones W H S. The Doctor's Oath: An Essay in the History of Medicine. Cambridge: Cambridge University Press, 1924: 18.
122. *'Hippocrates, conditor nostrae professionis, initia disciplinae ab iureurando tradidit, in quo sanctum est, ne praegnati quidem medicamentum, quo conceptum excutitur, aut detur*

aut demonstretur a quoquam medico, longe praeformans animos discentium ad humanitatem. Quoted in: Jones W H S. The Doctor's Oath: An Essay in the History of Medicine. Cambridge: Cambridge University Press, 1924: 39. Translation by P. Prioreshi.