Medical laws and ethics of Babylon as read in Hammurabi's code (History)
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Citation

Abstract
Background: In principle, the human body represents a forbidden existence in nature, saved and protected against violation which may endanger life. It is in all religions and in man-made ethical and moral code of laws. It allows violating the body integrity in treatment and surgery by consent, on condition that this interference in the human body is limited specifically to those cases that would benefit Health. Hammurabi's Code of Laws was considered the first documented Code ever used by human civilization in Mesopotamia, the cradle of civilization, the land of Assyro-Babylonian culture. We considered to study the text to see the interface between medicine and law in the dawn of civilization.

Method: Studying the translated preserved copy of the code and review of literature in Law and medicine to indicate the relevant items which cast a light on the status of law in Ancient civilization of Babylon in Mesopotamia.

Results: There were 282 laws, dealing with all aspect of public life, citizen's rights and limits and the Babylon Kingdome's justice system. The following laws are missing: Law numbered (13) and Laws numbered (66-99 inclusive). The Code of Hammurabi described a scaled fee schedule for surgical services, which was linked to the outcome of the surgery so if not met, resulted in severe penalties, required documentation of diseases and therapies, included prescription benefits. The code fully explained patient's rights according of proclaimed King's Code.

Discussion: This study elucidated a glimpse on ancient Mesopotamia' society social and judicial order. It gives flavor of rough justice of (Eye for eye) principle. The code by its nature does not show how these laws were implemented. On the other hand due to difficulties in understanding the archeological clay tablets preserved till today did not cast light on the total picture. Hammurabi made the first declaration of human rights in history: "To cause justice to prevail in the land. . . , that the strong may not oppress the weak. . .". The practice of medicine was regulated by the state. Malpractice was recognized and was punishable by law. Hammurabi's Code of Law specified: "If a surgeon performs a major operation on an 'awelum' (nobleman), with a lancet and caused the death of this man, they shall cut off his hands". Hammurabi also specified fees for lifesaving operations: "Ten shekels of silver for 'awelum', five shekels for 'mushkenu' (poor man) and two shekels for a slave."

Conclusion: The surgical care was authoritarian; there were possibility of legal actions to insure justice and equity particular to each social class in the kingdom. The Code of Hammurabi can be considered the genesis of the current concepts of health care. There is no final answer. Human civilization continues the drive for better condition of deals committing the justice system to the echo of the society. There is no absolute solution.

INTRODUCTION
General historians consider that the world civilization, started along the major rivers of what is called today The Middle East. Nile valley, Euphrates and Tigris in the land of Mesopotamia were harboring the ancient cultures 4000-5000 years ago.[1,2] The oldest medical writings are found in cuneiform tablets, which are known as the oldest medical handbook. It is believed that it was written by an anonymous Sumerian Physician, who lived presumably near the end of the third millennium B.C. He recorded a collection of his valuable prescriptions. In a cuneiform scripts he wrote down more than dozen of his favorite remedies. This is the oldest medical handbook known to man and was found buried in the Nuppur ruins for more than 4000 years.[3] Hammurabi reigns between (1795-1750 BC). He was the ruler who
established the greatness of Babylon. His code of laws is largely considered the earliest-known example of code announced to the public. It was arranged in orderly groups of topics. The code was carved upon a black stone monument (found in the year 1901) in Susa, Iran. It is eight feet high and clearly intended to be demonstrated in public view. It begins and ends with addresses to the gods. It is filled with prayers cursing whoever shall neglect or destroy the law [1, 5, 6, 7, 8]. See (Fig 1). The text of the code of laws was obtained and compared from these sources [1, 5, 6, 7, 8].

The code regulates, in clear and definite statements, the organization of society order [1, 4]. The judge who blunders in a law case is to be expelled from his judgeship forever, and heavily fined. The witness who testifies falsely is to be slain. Indeed, all the heavier crimes are made punishable with death. Even if a man builds a house badly, and it falls and kills the owner, the builder is to be slain. If the owner’s son was killed, then the builder’s son is slain. It is the law of “an eye for an eye.” These grim retaliatory punishments take no note of excuses or explanations, but only of the fact—with one striking exception. An accused person was allowed to cast himself into “the river,” the Euphrates for if the current drowned he was guilty. So we learn that faith in the justice of (Eye for eye) principle. The code by its nature does not show how these laws were implemented. On the other hand due to difficulties in understanding the archeological clay tablets preserved till today did not cast light on the total justice of (Eye for eye) principle. The code by its nature does not show how these laws were implemented. On the other hand due to difficulties in understanding the archeological clay tablets preserved till today did not cast light on the total picture. Many researchers [1, 9, 11, 12] summarized medicine in Hammurabi’s Code of Law as follow: Hammurabi made the first declaration of human rights in history: “To cause

METHOD

The authors studied the translated preserved copy of the code, reviewed the relevant literatures in Law and medicine to indicate the relevant items which cast a light on the status of law in Ancient civilization of Babylon in Mesopotamia. The key words used on Google scholar were: “Hammurabi's code”, “Laws”. The key words used on Pub Med Central were “Hammurabi’s code”, “Laws” litigation, managed care. Review of the title ended in close selection of relevant titles.

RESULTS

Four texts of the code were retrieved in three Universities: Almansoura's University Egypt, Fordham University; Internet historical source book, sources editor. Paul Halsall, Avalon project at Yale University in USA. The fourth was taken from world civilization site. All of these texts were originally translated by King L.W.

The serial numbers of the code of laws start from 1 to 282. The number thirteen is missing because it is considered (bad number). The numbers 66-99 inclusive also are missing. So (247) laws are available today.

There were criminal laws which describe the type of justice in cases of inflicting bodily harm among the public (Table1). The notorious law (Eye for Eye) is among this set of laws.

There are as well set of laws which are related exclusively to surgical interventions on the eye, bones and body of human beings and one set of laws for treating animals.(Table 2). The rest of laws are regulating all aspects of life regarding land ownership or hiring, interpersonal relations among family; man and wife and the rest of life activities.

It shows variable classes in the society: nobles, freed men and slaves. It shows as well builders, farmers, barbers and sailors, who had code of practice and nominated scales for their rendered professional services, variable degrees of crimes and punishments. The accused in misgiving should indicate absence of intention to commit this misgiving. The code fully explained patient’s rights according of proclaimed King’s Code. The surgical care was authoritarian; there were possibility of legal actions to insure justice and equity particular to each social class in the kingdom. The code as well insured the guarantee of healthy sold slave and the patient rights to have high standard of care from physicians.

DISCUSSION

This study elucidated a glimpse on ancient Mesopotamia’ society social and judicial order. It gives flavor of rough justice of (Eye for eye) principle. The code by its nature does not show how these laws were implemented. On the other hand due to difficulties in understanding the archeological clay tablets preserved till today did not cast light on the total picture. Many researchers [1, 9, 11, 12] summarized medicine in Hammurabi’s Code of Law as follow: Hammurabi made the first declaration of human rights in history:”To cause
justice to prevail in the land. . ., that the strong may not oppress the weak. . .”. The practice of medicine was regulated by the state. Malpractice was recognized and was punishable by law. Hammurabi’s Code of Law specified: “If a surgeon performs a major operation on an ‘awelum’ (nobleman), with a bronze lancet and caused the death of this man, they shall cut off his hands”. However there is no proof that such a punishment was ever carried out.

Hammurabi also specified fees for lifesaving operations: “Ten shekels of silver for ‘awelum’, five shekels for ‘mushkenum’ (poor man) and two shekels for a slave”. No analysis was made of veterinary medicine or wet nursing.

The medical practice was not linked to pre-requisite regarding learning the use of knife in surgery but made strict conditions of his therapy and linked it to good outcome.

ETHICAL AND LEGAL ASPECTS OF HAMMURABI’S CODE

Historians indicated the implementing of legal processing in management of human nobles and slaves on one side and animals on the other: “Carelessness and neglect were severely punished, as in the case of the unskilful physician, if it led to loss of life or limb, his hands were cut off, a slave had to be replaced, the loss of his eye paid for to half his value; a veterinary surgeon who caused the death of an ox or ass paid quarter value; a builder, whose careless workmanship caused death, lost his life or paid for it by the death of his child, replaced slave or goods, and in any case had to rebuild the house or make good any damages due to defective building and repair the defect as well. The boat-builder had to make good any defect of construction or damage due to it for a year’s warranty.” [13]

THE TRIBUNAL SYSTEM OF BABYLON
WE CAN SUMMARIZE THE LEGAL SYSTEM AS FOLLOW

1. Lawsuit: the plaintiff offered his own plea.
   Although there is no mention of advocates, but the plea might be in writing helped by the notary. The judge dealt with the plea, called the other parties before him and sent for the witnesses, or he might adjourn the case for their production, specifying a time up to six months on a fixed day.

2. The more important cases, especially those involving life and death, were tried by a bench of judges, a body of elders, who shared in the decision, but whose exact function is not clear.

3. Agreements, declarations and non-contentious cases are usually witnessed by one judge and twelve elders. Parties and witnesses were put on oath.

4. The penalty for the false witness was usually that which would have been awarded the convicted criminal.

5. In matters beyond the knowledge of men, as the guilt or innocence of an alleged wizard or a suspected wife, the ordeal by water was used. The accused jumped into the river, and the innocent swam while the guilty drowned. The accused could clear himself by oath where his own knowledge was alone available.

6. The plaintiff could swear to his loss by brigands, as to goods claimed, the price paid for a slave purchased abroad or the sum due to him. But great stress was laid on the production of written evidence. It was a serious thing to lose a document. The judges might be satisfied of its existence and terms by the evidence of the witnesses to it, and then issue an order that whenever found it should be given up. Contracts annulled were ordered to be broken. The court might go a journey to view the property and even take with them the sacred oath symbols.

7. The decision given was embodied in writing, sealed and witnessed by the judges, the elders, witnesses and a scribe. Women might act in all these capacities. The parties swore an oath, embodied in the document, to observe its stipulations. Each took a copy and one was held by the scribe to be stored in the archives.

8. Appeal to the king was allowed and is well attested. The judges at Babylon seem to have formed a superior court to those of provincial towns, but a defendant might elect to answer the charge before the local court and refuse to plead at Babylon.

9. Finally, it may be noted that many immoral acts, such as the use of false weights, lying, &c., which could not be brought into court, are severely denounced in the Omen Tablets as likely to bring the offender into “the hand of God” as opposed to “the hand of the king.”.
The commonest of all penalties was a fine. This is awarded by the Code for corporal injuries to a muskinu or slave (paid to his master); for damages done to property, for breach of contract. The restoration of goods appropriated, illegally bought or damaged by neglect, was usually accompanied by a fine, giving it the form of multiple restoration. This might be double, treble, fourfold, fivefold, six folds, tenfold, twelfold, even thirtyfold, according to the enormity of the offence.

The legal affecting physicians and other similar craftsmen are building on lake of intention. So if a patient lost his life the physician may be sentenced to have his hand cutoff, if the patient was a nobleman, and paid the price of the slave to his master. “The Code recognized the importance of intention. A man who killed another in a quarrel must swear he did not do so intentionally, and was then only fined according to the rank of the deceased. The Code does not say what would be the penalty of murder, but death is so often awarded where death is caused that we can hardly doubt that the murderer was put to death. If the assault only led to injury and was unintentional, the assailant in a quarrel had to pay the doctor's fees. A brander, induced to remove a slave's identification mark, could swear to his ignorance and was free. The owner of an ox which gored a man on the street was only responsible for damages if, the ox was known by him to be vicious, even if it caused death. If the mancipium died a natural death under the creditor's hand, the creditor was scot free. In ordinary cases responsibility was not demanded for accident or for more than proper care. Poverty excused bigamy on the part of a deserted wife. Throughout the Code respect is paid to status. Suspicion was not enough. The criminal must be taken in the act, e.g. the adulterer, ravisher, &c. A man could not be convicted of theft unless the goods were found in his possession.”[13]

Many cotes in medical literature refer to the code in few sentences to indicate the severity of the punishment and some indicated the managed health care and compensation for the patient concept's root [14,15,16,17,18,19,20]. As for the main purpose of this paper the authors would wonder if the medical litigations and medical malpractice issues in contemporary societies and if they offered better solutions. Considering some recent literatures dealing with this issue we cote two examples one in Kingdom of Saudi Arabia (KSA) and another in United State of America (USA) which may cast light on the possible need for better solutions.

Professional liability in KSA as an entity covers three different aspects:

1. The Civil liability which is the responsibility of a physician towards the patient when harm being inflicted as a result of wrong direct action, i.e. against medical rules, from the physician or as result of proven negligence,

2. The Punitive liability that deals with physicians who violate the rules and regulations of medical practice even with no subsequent harm resulted to the patient, and

3. The Disciplinary liability where a physician failed to meet the professional standards, requirements and ethics [21,22,23,24,25,26].

Finally claim may lead to a verdict of one or more of the following:

1. Issuing administrative warning

2. Financial compensation, to the patient of his dependents, according to Islamic Shariaah's law,

3. Prohibiting the physician from medical practice and withdrawal of medical license or

4. Imprisonment in some cases [21,22,23,24,25,26].

This will show that medical litigations are in transition between medical supremacy fading away to situation where the physician is questioned, investigated and sentenced either to bay compensation and or imprisoned.

In USA the medical litigation system and lawsuits against doctors are notorious for high compensation in settlements which made medicine a protective, costing more in term of excessive investigations and fee terms. This may deprive the patient from highly complicated medical interventions. The call for urgent reform was outlined recently as follow: “Indeed, in some specialties, high premiums are forcing physicians to give up performing certain high-risk procedures, leaving patients without access to a full range of medical services. …it has become clear …that if we are to find a fair and equitable solution to this complex problem, all parties — physicians, hospitals, insurers, and patients — must work together. Instead of focusing on the few areas of intense disagreement, such as the possibility of mandating caps on the financial damages awarded to patients, we
believe that the discussion should center on a more fundamental issue: the need to improve patient safety.” It seems that the relation between patient and physician is not a simple contract. It is political issue concerning health care and the service provider and cost provider causing many forces applying tremendous pressure on this complex modern view of patient autonomy and physician autonomy. Just when it appears that the persistent issue of medical error has been bumped from the national spotlight, a particularly egregious incident will surface to catapult the topic back to the front pages, reignite public outcry, and galvanize demands for change. Media coverage and public perception aside, however, the scope and pervasiveness of this problem are undeniable. More than one-fourth of U.S. adults have experienced a medical error, despite the fact that the United States spends much more on health care than any other country. The solution is far from indeed. The debate is between two opposing views: “Providers and hospitals insist that caps on damage awards in medical malpractice suits are necessary to stem rising malpractice insurance rates. The other side is also strongly arguing. “Trial lawyers counter that spiking rates are more attributable to trends in liability insurance markets. All are defending and agreeing that patient safety matters

In conclusion; the surgical care in the time of Hammurabi was authoritarian; there were possibility of legal actions to insure justice and equity particular to each social class in the kingdom. Code of Hammurabi can be considered the genesis of the current concepts of health care.

There is no final answer. Human civilization continues the drive for better condition of deals committing the justice system to the echoes of the society. There is no absolute solution.

Table 1: Hammurabi's Laws dealing with bodily harm from strike or other activity. [notice that the grammar of verbs is present in King's translation]

196. If a man put out the eye of another man, his eye shall be put out. [ An eye for an eye ]
197. If he breaks another man's bone, his bone shall be broken.
198. If he put out the eye of a freed man, or break the bone of a freed man, he shall pay one gold mina.
199. If he put out the eye of a man's slave, or break the bone of a man's slave, he shall pay one-half of its value.
200. If a man knock out the teeth of his equal, his teeth shall be knocked out. [ A tooth for a tooth ]
201. If he knocks out the teeth of a freed man, he shall pay one-third of a gold mina.
202. If any one strikes the body of a man higher in rank than he, he shall receive sixty blows with an ox-whip in public.
203. If a free-born man strikes the body of another free-born man or equal rank, he shall pay one gold mina.
204. If a freed man strikes the body of another freed man, he shall pay ten shekels in money.
205. If the slave of a freed man strike the body of a freed man, his ear shall be cut off.
206. If during a quarrel one man strike another and wound him, then he shall swear, “I did not injure him wittingly,” and pay the physicians.
207. If the man dies of his wound, he shall swear similarly, and if he (the deceased) was a free-born man, he shall pay half a mina in money.
208. If he was a freed man, he shall pay one-third of a mina.
209. If a man strikes a free-born woman so that she lose her unborn child, he shall pay ten shekels for her loss.
210. If the woman die, his daughter shall be put to death.
211. If a woman of the free class lose her child by a blow, he shall pay five shekels in money.
212. If this woman dies, he shall pay half a mina.
213. If he strike the maid-servant of a man, and she lose her child, he shall pay two shekels in money.
214. If this maid-servant die, he shall pay one-third of a mina.

Table 2: Hammurabi's Laws dealing with conditions necessitating surgical activity mainly on humans or animals [notice that the grammar of verbs is present in King's translation]

215. If a physician make a large incision with an operating knife and cure it, or if he open a tumor (over the eye) with an operating knife, and saves the eye, he shall receive ten shekels in money.
216. If the patient be a freed man, he receives five shekels.
217. If he be the slave of some one, his owner shall give the physician two shekels.
218. If a physician make a large incision in the slave of a freed man, and kill him, he shall replace the slave with another slave.
219. If he had opened a tumor with the operating knife, and put out his eye, his hands shall be cut off.
220. If a physician make a large incision in the slave of a freed man, and kill him, he shall replace the slave with another slave.
221. If a physician heals the broken bone or diseased soft
part of a man, the patient shall pay the physician five shekels in money.
222. If he were a freed man he shall pay three shekels.
223. If he were a slave his owner shall pay the physician two shekels.
224. If a veterinary surgeon perform a serious operation on an ass or an ox, and cure it, the owner shall pay the surgeon one-sixth of a shekel as a fee.
225. If he perform a serious operation on an ass or ox, and kill it, he shall pay the owner one-fourth of its value.
226. If a barber, without the knowledge of his master, cut the sign of a slave on a slave not to be sold, the hands of this barber shall be cut off.
227. If any one deceive a barber, and have him mark a slave not for sale with the sign of a slave, he shall be put to death, and buried in his house. The barber shall swear: “I did not mark him wittingly,” and shall be guiltless.

Figure 1
Figure 1: The laws, which numbered from 1 to 282 (numbers 13 and 66-99 are missing), are inscribed in ancient Babylonian on an eight-foot tall stella of black basalt. It was discovered in December 1901 in Susa, Elam, which is now Khuzestan, Iran where it had been taken by the Elamite king Shutruk-Nahhunte in the 12th century BC. It is clearly intended to be demonstrated in public view. It begins and ends with addresses to the gods. It is filled with prayers cursing whoever shall neglect or destroy the law. It is currently on display at Louvre Museum in Paris France. [Source Louvre Museum]

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