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## THE INFLUENCE OF THE KING ON MEDICAL PRACTICE IN ANCIENT MESOPOTAMIA

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### SUMMARY

#### THE INFLUENCE OF THE KING ON MEDICAL PRACTICE IN ANCIENT MESOPOTAMIA

*Rulers in ancient Mesopotamia were interested in their own health and, by the second millenium B.C., medicine was extended to the population, but not to the conquered people.*

*Physicians were very few and under patronage and control of the king; they were a cast lower than priests and considered as skilled technicians, with a great influence. Surgeons and veterinary surgeons were also encouraged, but kings promulgated laws to reward and penalise surgeons for damage or trauma or failure to effect a cure of the patients, heritage of the *lex talionis*.*

In the third millenium B.C., specific laws were passed by king Bilalama in Eshnunna to regulate certain conditions of human trauma, and the legal penalties imposed were always financial (1). It appears that the king attempted to include these surgical conditions within the framework of general law, so that human trauma was equated with damage to property, as noted elsewhere in the laws of Eshnunna.

By the early part of the second millenium B.C., king Hammurabi of Babylon was established as head of the state and shepherd of his people; he himself was responsible for law and order throughout his empire in Mesopotamia (2). Medical practice, as noted in his Code of Laws, now seems to have expanded and become more diverse and surgical operations were now being included. Although the rewards for succes-

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successful operations were quite adequate, penalties for failure to effect a cure of the patient varied from *lex talionis* in the case of a free man, to differential financial payments applicable to lower social classes (3). Thus, it can be noted that the king was already beginning to impose a variable scale of legal rewards and penalties on the physician, although only relatively few selected cases are mentioned in these Babylonian laws. However, the law is being applied for the benefit of the populace in general, and not specifically for the benefit of the king and his officials. It is clear from the legal penalty of inflicting partial amputation or the severe penalty of removing a slave mark (which was usually done by a barber rather than by a surgeon), that the surgeon must have acquired a considerable degree of expertise in order to perform these operations successfully, and this may have been acquired previously in his general practice (4).

Conditions of service were somewhat different at Mari until Hammurabi of Babylon incorporated it into his empire. At Mari, the king established the physician in the royal palace, thereby exerting direct control over his physician. His duties were strictly regulated by the king or his representatives, but sometimes he was detached on loan to an ally of the king or to governors of outlying districts (5). Doctors were few in number; they were valuable, skilled technicians who had to be detained if necessary at the court (6). A doctor was never sent to a governor who was considered to be a bad security risk, nor was he allowed to accompany troops into battle and run the risk of capture by the enemy (7).

The knowledge of medicine and surgery gradually spread widely throughout the countries of the ancient Near East by word and precept, probably *via* the courts (8), so that by the middle of the second millennium B.C. Assyrian doctors were quite competent surgeons (9), and were important influences at court.

By the first half of the first millennium B.C. Assyrian

physicians had become even more influential at court. The Assyrian king often maintained an active correspondence with his physicians, but it may have dealt only with political, religious or business affairs (10). On the other hand, specific medical reports have been noted in the royal correspondence (11), for the king certainly took an interest in clinical conditions which may have affected the health of himself, his family or his troops (12).

The physician (*asû*) worked in close association with exorcists and other magicians, all of whom used written texts which were kept in libraries (13). These libraries were often quite extensive, being kept either inside the main temples of the city under priestly control, or in the palace under control of the king; they are to be dated from the end of the second millennium B.C. (14). The king himself took an active interest in acquiring religious and medical texts for these libraries (15), and copies of texts from the second millennium are frequently found in the library tablets acquired by king Ashurbanipal. The contents of these libraries were available for consultation to the inhabitants of the palace, or to anyone authorised to consult the texts by permission of the king. The physician was also expected to treat sick animals; there was no distinction between the physician and the veterinary surgeon (*A. Zu Gud/Anse*) who was also under direct control of the king from the royal palace (16).

Veterinary texts were also included in the royal libraries (17). The penalty of failure of veterinary treatment was financial. The majority of the penalties for incorrect treatment of human and animal cases of trauma were still financial, and suggests that the king was still treating cases of trauma as damage to property (18).

At Mari, and also later in Assyria, the king took an active interest in people who were sick in the palace and in the health of his troops in the garrisons, all of whom might have required the attention of a doctor (19). Hospital services, howe-

ver, were conspicuous by their absence. Presumably sick personnel attached to palace were nursed at the palace, but we have no firm information on this subject (20).

It was important to provide an adequate, pure water supply for the needs of all the inhabitants of the palace, including the physician and veterinary surgeon.

Kings and rulers in Mesopotamia considered the provision of a water supply for the whole population to be an important civil duty, for the digging and maintenance of canals were frequently mentioned in historical records from the third millennium B.C. (21). The kings of Assyria and Babylonia in the second millennium also passed laws to keep water-courses in good condition; failure to do so incurred severe financial penalties (22). Closely associated with the provision of water for the use of the population was the establishment by Assyrian kings, in the first millennium B.C., of pleasure parks and gardens for themselves and for their subjects.

These gardens were often adjacent to a palace, and the plants required a regular and adequate supply of fresh water for their growth. The most important tree in the garden was the date palm, but many other useful trees, plants and shrubs were imported into Assyria and carefully tended in these royal gardens (23). The majority of them were planted by order of the king for their economic or therapeutic use; indeed, the royal gardens seem to have primarily functioned as 'physick' gardens, for most of their contents could have been used for medicinal purposes (24). Thus, the supply of fresh medicinal substances for the use of physicians was assured by the close proximity of the gardens to the doctors living in the palace.

In marked contrast to the regulation of physicians in times of peace, the Assyrian king, even as early as the last quarter of the second millennium B.C. and continuing into the first half of the first millennium, when going to war, concentrated on waging total war, ignoring all civilising influences and laws of public health, even to the unforeseen detriment of his

own military forces (25). There was no sanitary squad in the Assyrian and army surgeons were few in number.

Neither the Assyrian king nor his doctors had any knowledge about the spread of diseases and were unable to prevent the spread of infections in the field (26).

It was deliberate policy of the Assyrian king to leave the enemy dead unburied and exposed in heaps on the battlefield, which was often sited near pillaged and looted enemy cities or villages (27). Water supplies in the field were often scarce and heavily contaminated; food supplies were in short supply and liable to become infected with serious consequences to the troops (28). Of great importance was the deliberate destruction of fruit trees and crops by the Assyrian army, thereby destroying food and medicinal substances which no longer were available to physicians for the use by the sick and wounded (29). This deliberate destruction of trees during times of war was in marked contrast to the Assyrian policy of planting trees in the homeland during times of peace. Destruction and pillage of these foreign lands naturally led to their impoverishment and desiccation, but it is noteworthy that king Esarhaddon (c. 673 B.C.) carefully removed physicians, priests and veterinary officers from Egypt and transported them back to Assyria (30).

### *Conclusions*

Originally it appears that the rulers in ancient Mesopotamia were primarily more interested in their own health than in the physical welfare of their subjects, for the king represented the state itself.

Nevertheless, by the second millennium B.C. physicians were allowed to practice on members of the general populations outside the confines of the palace. The health of conquered and subject peoples was of no interest to the Mesopotamian king, except for the opportunity of acquiring healthy sla-

ves and skilled foreign physicians as booty from their military expeditions.

Physicians were few in number and kept under control of the king. They were of lower caste than priests, being considered to form a small, powerful class of skilled technicians. Their influence greatly increased during the period of the Assyrian Empire.

Veterinary surgeons were also controlled and encouraged by the king.

The king actively promoted the practice of medicine by providing 'physick' gardens, cultivating medicinal herbs from foreign lands, and providing well equipped libraries for consultation by physicians and by veterinary surgeons. Visiting physicians from other courts were able to exchange ideas with their colleagues from Mesopotamia. The king promulgated laws to reward and penalise surgeons. The penalties apparently were equated with other forms of financial punishment which were reserved for damage to property, trauma of the human body being considered in that light.

The practice of medicine gradually extended outside the confines of the palace and included members of the general population; private physicians, although rare, were allowed by the king to practice among the lower social classes (31). Physicians were occasionally sent to other courts for medical and political reasons by the king (32). They therefore had opportunities to discuss medical affairs with foreign colleagues, thereby disseminating medical knowledge throughout other lands, particularly the land of Hatti and Syria.

It is clear that the practice and development of medicine in Mesopotamia derived its main impetus from royal patronage and encouragement, and the advancement of medicine owed a great debt to the kings of Assyria and Babylonia during times of peace.

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POLIBO E L'EREDITA' DI IPPOCRATE

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SUMMARY

POLYBOS AND THE HERITAGE OF HIPPOCRATES

*The rising of medicine as science is first expressed in the Corpus Hippocraticum, collection of writings of many Authors and different Schools. To Hippocrates are attributed the principal books, mainly by Galen, because the dogmatic authoritarian great ancient physician was of support to his own glory as new Hippocrates.*

*In ancient Greece physicians were itinerant, travelling from city to city: when Hippocrates went out of Cos, the chairmanship of the School of Medicine was given to Polybos, son-in-law of Hippocrates and quoted by Aristotle as Author of De Natura Hominis, a work which introduces physiopathology in medicine.*

*Polybos joined the hippocratic method (study the patient and not only the disease) with the naturalism derived from the School of Crotona and followed by Aristotle: thus Polybos seems to be not only the principal pupil of Hippocrates, but also the author of a synthesis of the medical thought of different schools, so that hippocratism as summa of the medical thought of that time was propagated to our centuries.*

Gli scritti della Scuola di Cos e la continuità del pensiero ippocratico sono stati raccolti e riordinati durante il periodo alessandrino (inizio del III secolo a. C.) nel *Corpus Hippocraticum (C.H.)*, di modo che "quando si ricerca la storia della medicina e l'inizio della scienza, il primo corpo di dottrine che s'incontra è la collezione di scritti conosciuti sotto il nome di *Corpus Hippocraticum*" (1).

Prima che la Scuola di Cos divenisse il tramite principale del-

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