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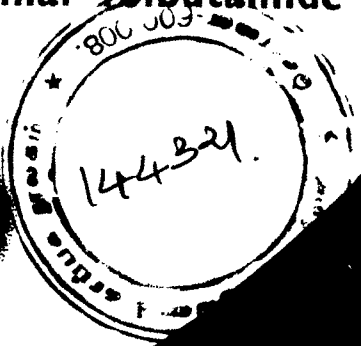
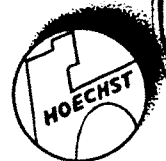
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Indian Journal OF THE History of Medicine

Vol. III

JUNE 1958

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Medicine in Ancient India*

BY

Dr. P. V. RAJAMANNAR,

Chief Justice, High Court of Madras.

I must confess that I was not aware of the existence of an Association devoted to the History of Medicine till I received the invitation to participate in this evening's function. I was gratified to find that there was a body of learned men in the Medical Profession who were not only interested in the practice and teaching of modern medicine but who were also earnest students of Medical History. It is true that the history of any branch of human knowledge or indeed of any form of human activity, is of abiding interest and value in that it gives an insight into the principles which have been evolved and developed, the influences which were at work and variations in the reactions to the environments, social, economical, psychological and ethical and the ways in which mankind had sought to resolve the problems with which it is continuously faced. Even the history of apparel or costume or jewellery will be interesting and valuable in its own way. But the history of Medicine, I think, is bound to be more fruitful, purposeful and of practical utility than the history of other subjects.

There is now in recent times a realisation of the importance of a study of Medical History as an essential part of the training of a physician. "Such a training", in the words of the Government of India, in its letter No. F. 8-37 56-MII dated 25 5 1956, "will greatly enrich the Medical curriculum and enable the physician to acquire a perspective of the evolution of Medicine and to appreciate the impact of economic, social, religious and philosophic forces on the growth of medicine". Such a study is specially important in this country because, it will help in the reconstruction of the indigenous systems of medicine which had reached a high degree of perfection in ancient times and more so when those systems are

*Address delivered at the Annual meeting of the Indian Association of History of Medicine held on 29-4-58 at the Madras Medical College, Madras.

founded on basic principles which can be usefully adopted in the further progress of medicine not only in this country but in this world. There are again certain aspects of Medical treatment which were undoubtedly in vogue at one time in this country and which, though to a smaller extent, still obtain today, keeping an unbroken tradition of centuries, if not of millenniums. I shall touch briefly later on one of those aspects.

Ayurveda is the well-known term current in history to describe the Hindu system of Medicine which goes back to the Vedic times. The "Thridhatus" are mentioned in Rigveda and the great commentator Sayana has explained that health consists in maintaining an equilibrium of the three Dhatus. Ayurveda is literally "The Science of Life". Though it is now generally used to denote the practice of medicine, in its curative aspect, what may be called general medicine, it originally comprised eight branches or Angas, also known as Tantras, namely :

1. Kayatantra, *i.e.*, Science and Art of Medicine ;
2. Salyatantra, *i.e.*, Surgery ;
3. Salakyatantra, *i.e.*, Ear, Nose & Throat ;
4. Bhutavidya, *i.e.*, Psycho-therapy ;
5. Kaumarabhritya, *i.e.*, Pediatrics ;
6. Agadatantra, *i.e.*, Toxicology ;
7. Rasayanatantra, *i.e.*, Geriatrics, branch of medical science dealing with old age, and
8. Vajikaranatantra, *i.e.*, Sexual rejuvenation.

On each of the above eight branches, there is evidence that innumerable treatises existed. Unfortunately, of most of them, we have only the names of the authors and their books. In ancient Sanskrit Literature, we find references to major operations performed with great skill by Ayurvedic Surgeons. Surgical instruments—which may be said to be forerunners of modern instruments—appear to have existed even in ancient times. The Simhamukha Yantra, for instance, must have been nearly identical with the modern lion forceps. Susruta describes more than 100 surgical instruments made of steel. They include scalpels, lancets, saws, bone-lifters, scissors, needles, as well catheters, syringes etc. Varieties of bandages are also described. Several operations, including laparotomy, lithotomy and even plastic surgery were not apparently unknown.

Apart from the orthodox Ayurvedic System, the greatest commentators of which were Charaka, Susruta and Vagbhata, there were other systems prevailing, particularly in South India, as for instance Agastya

Vaidya, which must have later on come to be known as the Siddha School of Medicine. The names of some of the Siddhas, who wrote in Tamil language, were Pulastiar, Thirumovar, Chattamuni, Kapilar, Perinarkannar and others.

In ancient times, Ayurveda was closely related to Chemistry. Rasayana is the term which is commonly applied to one Branch of Ayurveda and chemistry, namely, alchemy. The great Muslim Scholar, Alberuni, who lived in India in the beginning of the eleventh Century says in his book on India, "They (Hindus) have a science similar to alchemy which is quite peculiar to them. They call it Rasayana. It means an art which is restricted to certain operations, drugs and compounds and medicines, most of which are taken from plants. Its principles restored the health of those who were ill beyond hope and gave back youth to fading old age". Extensive use of metallic preparations, specially those of mercury and iron and arsenic for internal prescription was first made by the Hindus.

There is no time—and it is not the occasion—to describe the knowledge that our ancient scientists had of the body, its several organs, its nervous system and its physiological processes. It is obvious that they were aware of the circulation of blood which is supposed to have been discovered by Sir William Harvey in the seventeenth Century. The following passage from Charaka Samhita clearly establishes this: "From that great centre (the heart) emanate the vessels carrying blood into all parts of the body—the element which nourishes the life of all animals and without which life would be extinct. It is that element which goes to nourish the foetus in utero and which flowing into its body returns to the mother's heart".

The basic doctrine of Ayurveda in the sphere of general medicine is the thridosa theory. The thridosas, which have been sometimes also described as thridhatus are, as you know, vayu, pitta and kapha or sleshma. This theory is highly complicated and one can trace the gradual development of this theory from the time of the Vedas. The English translation of these expressions, namely, wind, bile and phlegm are hopelessly misleading and reduces a highly complicated theory to kindergarten level. Charaka mentions the seats of Vayu as urinary bladder, intestines, the pelvis, the two thighs, the two legs and the bones. Obviously, according to the popular connotation of 'wind', it will be impossible to understand him.

I have read with great interest the learned essay of your President, Dr. Kutumbiah on "Hindu Medical Theories". Recently, scholars have been trying to understand the theory in its proper setting. I must admit that I am not equal to the task of delivering a discourse on this famous theory. A learned author, Mahamahopadhyaya Kaviraja Gananatha Sen has suggested a possible explanation of the words, namely, that the expression vayu does not imply wind but comprehends all the phenomena

of motion which come under the functions of cell-life-or to be more explicit, functions of the central and sympathetic nervous systems, that the word 'pitta' does not essentially mean bile, but signifies the function of metabolism and thermogenesis or heat-production, comprehending in its scope the process of digestion, coloration of blood and formations of the various secretions and excretions which are either the means or the ends of tissue-combustion; and that the word 'kapha' does not mean phlegm merely, but is used primarily to imply the function of cooling and preservation, thermolysis, and also the production of the various preservative fluids, e.g., mucus, synovia. Very often, this theory is compared to the humoral theory of Greek and Roman physicians. I am however inclined to think that the relation is more superficial than substantial. This theory is well worth the study of Medical Scholars of today.

One is amazed at the thoroughness with which an examination of the patient was expected to be made before diagnosis of the disease. The examination or Pariksha was eight fold, Ashtastana Pariksha. The examination was to be of 'Nadi', (i.e. pulse), Moothra, (urine), Mala (faeces), Jihva (tongue), Sabda (sound), Sparsa (touch), Drik (sight), Akruithi (general appearance). The examination of the pulse occupied a very important place in diagnosis in Ayurveda. There are separate treatises dealing with Nadi Pariksha. The physician was expected to diagnose the nature of the disease even on an examination of the pulse. I do not know if modern Doctors trained in the Allopathic system devote as much importance to pulse. In the Yogaratnakara, there is an illuminating description of the Nadi, which runs thus:

"Yatha Veenāgatā tantri sarvān rāgaṁ prabhāṣhate
Thadha Hasthagata nadi sarvān rogāṁ prabhāṣhate".

"Just as the strings of a Veena can produce all the Ragas, so the Nadi can speak of the different diseases".

Examination of the Urine was also as thorough as could be expected. The quantity, colour, transparency, odour, specific gravity, sediment, were all to be examined. In addition there is one other kind of examination with which I am not so familiar in modern times, that is, Thaila Pariksha, examination with oil. It was done in the following way:

Urine was placed in a saucer and a drop of oil was put in the middle of the surface; if the oil spread then it indicated a favourable prognosis; if it did not, but remained in the same place, then it was less favourable; but if it went down, then the prognosis was decidedly unfavourable. This kind of examination is attributed to Nagarjuna. Now a sample of urine, for examination, the modern doctor takes in the mid-stream. You will be surprised

to know that in ancient treatises on Ayurveda, the same method was enjoined; "Tasyādyandhāram parihṛitya madhya dharodbhavam tatparidhārayitva:" Madyadhara is equivalent to Mid-stream.

There is one subject which has been of perennial interest to me, and that is the practical aspect of many parts of Yoga Sastra. One may remark that Yoga is not related to medicine; and that is true in the orthodox way. It was not necessary for physicians in ancient times to have an expert knowledge of Yoga. But it cannot be denied that there is much in yoga sastra which has a direct bearing on the maintenance of health and development of the body and eradication of disease. From the point of view of Yoga, *Asanas* are important because they are useful to keep the organism in a fit and proper condition for the further development in the succeeding stages, which are supra-physical and spiritual. I think I am not rash in saying that it is now generally admitted that these *Asanas* have also therapeutic value. Some of them are claimed to help in the improvement of digestion and incuring constipation. They are said to be both curative and prophylactic in certain ailments. The *Shirshasana* (the topsy-turvy pose) is claimed to set aright digestive disorders due to deficiency in blood supply and diseases like dyspepsia. In this pose, the arterial circulation is stimulated and augmented and a richer supply of blood is carried to every part of the body. According to one learned author, as a therapeutic measure, this *Asana* may be practised for toning up the nerves in cases of neurasthenia and for the cure of associated complaints such as dyspepsia, loss of energy and memory, sleeplessness and torpidity of the liver. It is even said that asthma due to nervous and hepatic troubles can be relieved by a proper practice of this *Asana*. Likewise, *Halasana*, called plough pose, because the extended arms are like the blades of ploughing machine, is said to be curative of dyspepsia and constipation. It increases the secretion of all the glands in the abdomen. Besides, it is designed to tone up the spinal cord which plays an important part in the awakening of the *Kundalini*. The *Sarvangasana* which may be translated as "pan-physical posture" has the effect of directing a liberal supply of blood to the thyroid and pituitary glands and helps to maintain proper metabolic activity. It is claimed to be invaluable for the cure of varicose veins of the legs and trunk and has a beneficent influence on weak sex glands. Complementary to it is the *Matsyasana*, the fish posture. This is said to supply pituitary and pineal glands with plenty of oxygenated blood. The effects of *Viparita Karani*, called the pelvic pose, deserve investigation because, it is designed to prevent premature aging by contributing to the re-absorption of the secreted elixir of life. (Amruta). This probably refers to the gonadal secretions. *Yoga Mudra* is a pose highly praised because it assists to increase the anabolic reserve of the body by toning up the parasympathetic nerves. The *Shavasana*, corpse pose, aims at complete relaxation which is soothing to the nerves and as a therapeutic measure is likely to reduce high blood pressure.

I have on several other occasions dealt with the fascinating theme of *Chakras*. They no doubt occur in the Agamas but not in orthodox treatises on medicine. Nevertheless, they may be excellent subject for research, by modern doctors and scientists. The research may lead to discoveries of a most revolutionary character and to the acquisition of powers undreamt of today by the majority of mankind.

With my limited knowledge I trust I have said enough to indicate how interesting and valuable the study of the history of medicine India is likely to be.

Old age and its Infirmities as described in Sanskrit Classics

BY

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(I) A DIALOGUE BETWEEN KING YAYATI AND HIS SONS

(Mahabharatha, Adi parva, Chapter 84, Translated by Pratap Chandra Roy).

Yayati then, overcome with decrepitude returned to his capital and summoning his eldest son, Yadu, who was also the most accomplished addressed him thus:

Yayati said.—“Dear child, from the curse of *Kavya* called also *Usanas*, decrepitude and wrinkling and whiteness of hair have come over me: but I have not been gratified yet with the enjoyment of youth”. “Do thou, O Yadu, take this my weakness along with my decrepitude: I shall enjoy with thy youth:” And when a full thousand years will have elapsed returning to these thy youth, I shall take my weakness with this decrepitude”.

Yadu replied.—“There are innumerable inconveniences in decrepitude in respect of drinking and eating. Therefore, O King, I shall not take thy decrepitude: this is indeed my determination”. White hair on the head, cheerfulness and relaxation of the nerves, wrinkles all over body, deformities, weakness of limbs- emaciation, incapacity for work-defeat at the hands of friends and companions these are the consequences of decrepitude. O King, I desire not to take it. “O King, thou has many sons, some of whom are dearer to thee. Thou are acquainted with the precepts of virtue: Ask some other son of thine to take thy decrepitude”.

Yayati said.—“Thou art sprung from my heart, O Son! but thou givest me not thy youth: therefore thy children shall never be kings” —and he continues addressing another son of his, “O Turvasu! take thou this weakness of mine, along with my decrepitude. With your youth—O Son! I like to enjoy the pleasure of life”. “after the expiration of a full thousand years I shall give back to thee thy youth, and take back from thee my weakness and decrepitude”.

Turvasu replied.—“I do not like decrepitude, O Father! it takes away all appetites and enjoyments, strength and beauty of person, intellect and even life:

Yayati said.—“Thou art sprung from my heart, O Son! but thou givest me not thy youth: therefore, O Turvasu! thy race shall be extinct: “Wretch! thou shalt be the king of those whose practice and precepts are impure, amongst whom men of inferior blood procreate children upon women of blue blood, “who live on meat, who are mean who hesitate not to appropriate the wives of their superiors whose practices are those of birds and beasts who are sinful and non-aryans”.

Yayati, having thus cursed his son Turvasu, then addressed Sharmishta's son, Druhya: thus: Yayati said.—“O Druhya! take thou for a thousand years my decrepitude destructive of my complexion and personal beauty and give me thy youth: “When a thousand years have passed away, I shall return thee thy youth and take back my own weakness and decrepitude”.

To this, Druhya answered.—“One that is decrepit, O King! can never enjoy cars and elephants, horses and women. Even his voice becometh hoarse, therefore I do not desire (to take) thy decrepitude”.

Yayati said.—“Thou art sprung from my heart, O Son! But thou refusest to give me thy youth, therefore thy most cherished desires shall never be fulfilled”. “Thou shalt be king only in name, of that region where there are two roads for (the passage of) horses and cars and elephants and good vehicles and asses, and goats and bullocks and palanquins, where there is swimming only by rafts and floats:

Yayati said to his son, Anu.—“O Anu! take my weakness and decrepitude, I shall with thy youth enjoy the pleasures of life for a thousand years”.

Anu said.—“Those that are decrepit always eat like children, and are always impure, they cannot pour libations upon fire, in proper times. Therefore, I do not like to take thy decrepitude”.

Yayati said.—“Thou are sprung from my heart, thou givest me not thy youth, thou findest so many faults in decrepitude, therefore, decrepitude shall overcome thee and O Anu! thy progeny also as soon as they attain youth shall die. And thou shalt also not be able to perform sacrifices before fire”.

Yayati at last turned up to his youngest son, Puru and addressing him said.—“Thou art, O Puru! my youngest son; But thou shalt be the first of

all: Decrepitude, wrinkles and white hair have come over me in consequences of the curse of Kavya called Usanas”. “I have not yet however been satiated with my youth O Puru! take thou this my weakness and decrepitude. With thy youth, I shall enjoy for some years the pleasures of life, and when a thousand years have passed away, I shall give back to thee thy youth and take my own decrepitude”.

Vaishampayana said, Thus addressed by the king, Puru answered with humility.—“I shall do, O Monarch! as thou bidest me. I shall take O King! thy weakness and decrepitude: Take thou my youth and enjoy as thou listest the pleasures of life. Covered with thy decrepitude and becoming old I shall, as thou commandest, continue to live, giving thee my youth”.

Yayati then said.—“O Puru! I have been gratified with thee: and being gratified, I tell thee that the people in the kingdom shall have all their desires fulfilled”. “And having said this, the great ascetic Yayati then thinking of Kavya transferred the decrepitude unto the body of the highsouled Puru”.

(II) VERSES FROM SUBHASHITA RATNA BHANDAGARAM

(English translation by Dr. P. M. Mehta).

Old age adds great reputation and respectability to the king, minister, physician and ascetic, while that very event, depreciates the value of and detracts the dignity and veneration of the prostitute, wrestler, songster and servant. (1)

The intellect of an aged man is like the flame of an extinguishing lamp that flashes up for a moment and then suddenly sinks into darkness. (2)

The mind of woman does not delight in a husband whose sense-faculties have been weakened owing to old age, just as the mind of people afflicted with cold, does not delight in the moon and that of people afflicted with heat does not do so in the sun. (3)

On witnessing that even the dusky dark hair can dare to mimic them by becoming white (in old age) the rows of milk-white teeth in the mouth become wrathful and take departure for ever from their natural habitat - the mouth (the teeth fall out in old age). (4)

The emerging of white hair on the body-habitat of man is likened to the formation of ash that results when the pith of youthfulness is burnt away by the old age. (5)

The rows of white hair which is seen on the head of an old man is not that (white hair) but it is the ashes that the creator put there (proclaiming) that the life was wasted uselessly. (6)

The indignant god of death eradicates as many teeth as possible while rebuking the man that you have not performed any good deed in your life though you were given all material and opportunities. (7)

The old age stigmatized the man who has not led a good life by invalidating him to need the support of a staff in walking, making him very susceptible to diseases, making his body bent and curved and deforming his eye-sight. (8)

The old age is the repetition of childhood; the mouth becomes edentulous, the speech is indistinct, the energy ebbs or recedes and the power or sense-faculties is not manifested. (9)

The messenger in the form of white hair having reached the head of all people announces that the old age is accompanied by death; therefore, perform your duties well and desist from sinful acts. (10)

The old age makes a man hundredfold irascible, staff-supported, deformed-bodied, colicky and ever-diseased. What other epithets of deformity she will not hurl at the man? (11)

The mass of snow has verily come like old age which takes into consideration the virtues in the ^{path of Krishna} ~~the~~ ^{fire} and which lessens love in ^{life} ~~water~~; therefore resort to this ^{celestial river,} ~~amorous damsel.~~ (12)

O people! Harken, the old age, the messenger of death, having encroached the root of the ear says: covet not other people's wife or wealth and resort to God Vishnu. (13)

Having observed the white colour of the hair of the head, which is the signal of fateful frustration of man by old age, the young women abhor and avoid him even as one does a well meant for untouchables containing pieces of bones. (14)

Has not the old age mimicked kaliyuga? ^{The faculty of bearing} ~~Vedic Knowledge~~ has abated; ^{the memory} ~~the smriti~~ has waned; ^{the gait} ~~the behaviour~~ has been astray, the line rows ^{of teeth} ~~brahmans~~ have dropped down, and the function and care of ^{senses} ~~cow~~ also has declined. (The poet uses the figure of speech Pun with double meanings of the words). (15)

The limbs are contracted, the gait falters, the line of teeth falls off, the eye-sight is diminished, deafness increases, saliva dribbles from the mouth, relatives do not pay heed to his word and the wife has turned indifferent. Alas! even the son plays a foe to the man in advanced age! (16)

There remains confined in the house the old man, who has to put on thick garments, who talks only of the past, who is troubled with cough, is polluted by excessive flow of tears and saliva, whose chest, hip, back, knee and thighs are bent, who behaves childishly and tries to keep away guests, who tolerates the taunts of the audacious daughter-in-law, in vain, a life full of boundless hopes of happiness and comfort. (17)

The behaviour of the newly married woman and of the old person has much semblance: the walking comes to stand-still, the face is bowed down, the limbs appear stiff, the hands tremble, the words are hardly uttered or heard, there is shudder in the sexual union and the body is covered with creases and folds. There is only one paradox and that is the former is frightened of man while the latter is frightened to man. (18)

The Physician, his Training, Status and Practice in Ancient India

BY

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The profession of a physician must have been one of great antiquity in India. We have mention of 'lay' physicians, in addition to priest physicians, in the Vedas. In Rig-veda ix. 112, we read "we have various hopes and plans and many are the ways of men, the craftsman seeks for jobs to do, the priest his flock, the leech the sick. I am a poet, dad is a leech". So also in the Atharva-veda, we read of "medical" practitioners. In A.V. 11, 9, 3 we read there were hundreds of "medical" practitioners and thousands of herbs but what can be done by these can be effected by binding an amulet. Again in A. V. 11, 9, 5 the arthavan who binds the amulet is described the best of all good doctors. In Manu we read of a controversy between the priest-physicians and the caste of physicians, the vaidyas. Thus it is evident that the profession of a physician was of very ancient origin and has been progressively developing over a long period before the compilation of the samhitas of Charaka and Susruta.

There were two systems of training in vogue in Ancient India, *viz.*, the Brahmanical and the monastic. "Indian medical lore has been handed through generations, not by faculties and bodies, colleges or research centres, but through individual training of pupils, by skilled practitioners, masters of their craft". This was the Brahmanical system and was the one in vogue in the training of the physicians in the time of the samhitas. We have mention of the monastic system, corresponding to our university training, in the Buddhistic works. Jivaka, the physician to Bimbisara, a contemporary of Buddha, is stated to have been educated in Taxilla university under Atreya, professor of medicine, and it is also stated that his studies lasted seven years. We do not know anything of the methods or the curriculum of studies of this type of medical education.

The science of life should be studied by Brahmins, Kshatriyas, and the Vaicyas. Brahmins should learn it for doing good to all creatures; Kshatriyas should learn it for self preservation; and the Vaicyas should learn it for gain. Susruta mentions that some say a Sudra of good family and character may be admitted as a pupil. (S. S. 1, 2) In general, all may study this science for the acquisition of religious merit, wealth and pleasure. (C. S. 1, 30, 24).

The initial decision to become a physician rested upon the pupil. "If an intelligent man, who knows the difficulty and lightness of all acts, the results, immediate and remote, of acts and place and time, desires, impelled by proper reasons, to become a physician, he should then, at the outset, select the particular treatise (Sastra) he should take up; after this he should select a proper preceptor and present himself to him. (C. S. III. 8)

Great importance was attached to the selection of the text book (Sastra) to be followed and studied. Charaka, discussing the various means of ascertaining disease, mentions the three important ones (pramanas), *viz.*, instructions of the inspired or wise (Aptopadesa), perception (pratyaksha), and inference (anumana). Among these three means (pramanas) he places the knowledge derived from the instructions of the inspired as the first. (C. S. III. 4). These instructions were to be found in the various authoritative books (Sastras or Tantras). "Diverse treatises appertaining to the profession of a physician are in circulation. Amongst these one should have recourse to that particular work which has been honoured by men of renown and wisdom and which is full of substance, which is worshipped by the inspired, which is well suited to the understandings of the three kinds of pupils, which is free from the faults of tautology, which is ascribable to a rishi, which has been well compiled in respect of aphorisms, commentaries, and abstracts in due order, which treats of nothing but the professed subject, which is devoid of slang and provincial words, which contains no obsolete or unfamiliar words, which is couched in words of wide import, which is duly arranged according to sense, which has been principally designed to lead to certainty of inferences, which has all the indications of a scientific treatise, and which contains proper illustrations. A treatise of this kind dispels ignorance like the bright sun dispelling darkness and discovering all things". (C. S. III. 8)

The next duty of the future physician is to select a proper preceptor, and then present himself to him. All persons cannot become teachers. Charaka lays down the following qualifications for a teacher:—"He should be one whose doubts have all been cleared in respect of medical scriptures; he should be possessed of experience; he should be clever; he should be compassionate towards those who approach him; he should be pure of conduct; he should have a practised hand; he should have all the implements of his profession; he should have all the organs of sense; he should be conversant with the nature (of health, of disease, of medicaments, of time, of place, of men, etc.); he should be conversant with the tendencies and the acts of the healthy and of the diseased; he should be one whose knowledge of the medical science has been supplemented by knowledge of other branches of study; he should be without malice; he should be without a wrathful disposition; he should be capable of bearing privations and pain; he should be one well-affected towards disciples and disposed to teach them; he should be capable of communicating his ideas to pupils that seek his instructions". (C. S. III. 8)

All persons are not fit to be students of medicine. The choice of the pupil is left to the preceptor. The preceptor, who has set his mind on teaching, should at first examine the person that presents himself as a pupil. The pupil must possess certain physical, as well as moral and intellectual endowments. "His eyes, mouth and the nasal line should be straight; his tongue should be thin, red and unslimy; his teeth and lips should have no deformity; he should not have a nasal voice; he should not be defective in respect of any limb; he should have all his senses perfect; he should be of a mild disposition; he should be noble by nature; he should not be mean in acts; he should be disposed for solitude; he should be free from haughtiness; he should be of a thoughtful disposition; he should be free from those faults which go by the name of Vyasana, *viz.*, hunting, gambling with dice, sleeping during day time, speaking ill of others, infatuation with women, excessive addiction to singing, dancing and instrumental music, purposeless sauntering, etc.; he should be free from wrath; he should be endued with excellent character, purity of behaviour, devotion, cleverness and compassion for all; he should be free from cupidity; he should be without sloth; he should seek the good of all creatures; he should be prepared to obey all the commands of his preceptor. He should be possessed of intelligence; he should be free from pride; he should be endowed with a large understanding; he should have power of judgment and memory; he should have a liberal mind; he should belong to a family, the members of which have studied the medical scriptures or followed medicine as a profession; he should have devotion for truth; he should be fond of study; he should be devotedly attached to both theory and practice of medicine". (C. S. III. 8). A preceptor can admit as a pupil, a son of a Brahmin, Kshatriya or Vaicya, of a good family and sixteen years of age. (S. S. 1, 2).

The beginning of instruction is preceded by a consecration ceremony which is similar to the corresponding ritual associated with other crafts. During the initiation the preceptor gives the following charge to the pupil: "You should give up lust, anger, avarice, folly, vanity, pride, envy, rudeness, deception, falsehood, idleness and all other reprehensible conduct. You should always have your hair and nails cut short, should put on red coloured cloth, lead a pure life, avoid sexual intercourse and be ready to obey your superiors. You should remain, go about, lie down, sit down, eat and study according to my wishes, and you should always be ready to seek my welfare. If you fail in this your duty you will be committing sin, and your learning will be useless and unknown. On the other hand, if while you act dutifully towards me, I behave improperly towards you, I will be committing sin and my learning will be fruitless. It is the duty of all good physicians to treat gratuitously with his own medicines all Brahmins, spiritual guides, paupers, friends, ascetics, neighbours, devotees, orphans and people who come from a distance as if they are his own friends. Hunters, fowlers, outcasts, and sinners should not be treated. By acting in this way one makes himself known and attains friends, fame, wealth, and objects of

desire". (S. S. 1, 2). Charaka adds the following additional charges to the above:—"If thou desirest to achieve success of treatment, earn wealth, acquire celebrity and win heaven hereafter, thou shouldst always seek, whether standing or sitting, the good of all living creatures; thou shouldst, with thy whole heart, strive to bring about the cure of those that are ill; even for the sake of thy life thou shouldst not drain those that are ill; thou shouldst not, even in imagination, know another man's wife; thou shouldst not, similarly, appropriate other people's possessions; thou shouldst always clad thyself in homely attire; thou shouldst not keep any connections with publicans or sinful men, or with those that are abettors or sinful behaviour; thou shouldst speak words that are soft, unstained by impurity, fraught with righteousness, incapable of giving pain to others, worthy of praise, truthful, beneficial and properly weighed and measured; thou shouldst always conduct thyself taking note of place and time; thou shouldst always act heedfully; thou shouldst always strive to acquire knowledge, to cast off sloth, to keep ready with the implements and medicines thou mayest require; while entering the family dwelling-place of the patient, thou shouldst do it with notice to the inmates and with their permission; thou shouldst be accompanied by some male member of the family; thou shouldst cover thy person properly; thou shouldst keep thy face downwards; with thy wits about thee, thou shouldst, with understanding and mind properly fixed, observe all things; having entered, thou shouldst not devote thy words, mind understanding, and the senses to anything else than what is calculated to do good to the patient or to any other object connected with the patient (than his recovery); thou shouldst never give out (to others) the practices of the patient's house; even if thou be certain of it, thou shouldst not speak of the diminution of the period of the patient's period of life when such speaking may shock the patient or anybody else. Even if possessed of sufficient knowledge thou shouldst not boast of that knowledge. Many people become annoyed even with an inspired person if he boasts of his wisdom. There is no end of medical science. Hence, heedfully thou shouldst devote thyself to it. Skilfulness of practice should be acquired from others, without feeling any humiliation. Unto men possessed of intelligence, the entire world acts as a preceptor. Unto men destitute of intelligence, the world occupies the position of an enemy. Hence, observing all this, an intelligent man should listen and act up to the councils of the one who is even a foe when these happen to be instructive and praiseworthy, capable of leading to fame and long life and prosperity and beneficial as regards his worldly condition". (C. S. III. 8).

After the selection and initiation of the pupil by the preceptor, his real training commences. The instruction, lasting six years, was based on a recognised and proved text book (*sastra*) and consisted, on one hand, in learning by heart precepts which were explained by the preceptor, whilst on the other hand, there was practical instruction. Medicine and Surgery had equally to be mastered. "When the student attends at the hour of

receiving instruction with purified body, dressed in his upper garment or sheet and his mind perfectly calm, the preceptor will teach him according to his capacity either one-quarter, one-half or an entire sloka at a time. The pupil should repeatedly recite this. In this way each pupil should be taught separately and the preceptor should recite the entire sloka after his pupil. Learning by rote, without understanding the meaning of what is thus committed to memory, is like the ass carrying a load of sandalwood and is labour without profit. As the ass which carries the load of sandalwood perceives the weight but not the fragrance of the sandal, so the dunces who study numerous sastras without understanding their meaning bear their weight only. Every word, phrase and sentence ought to be heard and recited over again. When any subject relating to other sastras occur in any part of this work, it should be learned from persons well acquainted with those sastras, for the person knowing one sastra only cannot understand the other sastras. The pupil, who after receiving instructions in the sastras from the lips of his preceptor, studies it repeatedly, is the genuine physician, others are rogues". (S. S. 1, 4).

The sastras must be studied and then the art of healing learned practically. Even if the pupil is acquainted with all the sastras, the preceptor to make him properly qualified, should instruct him practically in medicine and surgery. Without practical training, repeated recitation or hearing of lessons will not qualify a pupil for practice.

After his initiation the pupil shared for years the life of the preceptor. He became a member of the household. He served his preceptor and day by day, watched him, as he treated his patients. He assisted him in his pharmacy in preparing medicaments. He became familiar with the various tools and procedures of the medical profession.

With regard to surgical training the preceptor should show his pupil how to incise, divide, extirpate, etc. by performing these operations on flowers and fruits, on gourds, watermelons, cucumbers, etc. Puncturing or letting out fluids, etc. should be shown by performing the operations on leather bags or bladders filled with water and mud or mire. Scarification should be practised on stretched pieces of leather covered with hair. The operating of piercing, such as opening of veins, should be shown on the veins of dead animals or on the stalk of the water-lily. Exploring by probe should be demonstrated on worm-eaten wood, bamboos, tubes, dried gourds, etc. Extraction should be shown in the jack-fruit, pulp of bel fruit and the teeth of dead animals. Opening of abscesses should be demonstrated on a lump of wax applied to a piece of wood. Sewing should be practised on thick cloth and on the edges of two pieces of soft leather. Bandaging should be practised on the limbs of human figures made of wood or clay. The mode of bandaging the root of the ear may be shown on a piece of soft flesh or the stalk of a water-lily.

The application of caustics and actual cautery should be shown on pieces of soft flesh. The withdrawal of urine from the bladder or the extraction of pus from the pelvic cavity by means of tubes should be demonstrated on an earthen pot with a spout, filled with water, or on a gourd, etc. (S. S. 1, 9).

Susruta insists that this enormous amount of oral learning should be balanced by practical efficiency; the physician who masters both, stands firmly on both legs. Otherwise, when it comes to treating the patient, he will feel as insecure as a coward approaching the battle ground. "He who is only trained in theory but is not experienced in practice knows not what he should do when he has a patient and behaves foolishly as a youth upon a battle field. On the other hand, a physician who is educated practically but not in theory, will not earn the respect of better men". (S. S. 1, 9).

Along with learning and teaching Charaka speaks of discussions with specialists in different branches. Medical men should hold discussions (sambasha) with other medical men. Discussion increases zeal for knowledge (samharsha) and clarifies knowledge, increases the power of speech and of achieving fame, removes doubts in the learning acquired before, strengthens convictions. In the course of these discussions many new things may be learnt and often, out of zeal, an opponent will disclose the most cherished teachings of his teachers. (C. S. III. 8).

After having studied the sastras and learnt their meaning, after having attained the proficiency of reciting the sastras and obtained a practical knowledge of surgical treatment, the physician should obtain the permission of the king and commence his practice; He should keep his hair and nails short and his person pure, he should wear white clothes, put on shoes and have a stick and an umbrella. His appearance should be humble and his mind pure and guileless. He should be polite in his speech and friendly to all living beings and he should have an attendant of good character. (S. S. 1, 10).

THE STATUS OF A PHYSICIAN

The physician has always occupied a respected place in society from ancient times. In Vedic times as priest-physicians they wielded tremendous power and influence. As a priest and as a physician he held a key position. He gained access even to the rulers of the country and in fact came to be recognised as the king's alter ego in the role of his purohita. He was priest, physician, sorcerer, and adviser to the king all combined. Even in the Vedas as we have seen there was a separate class of physicians. We may call these "lay" physicians. In the Atharva-Veda we read of priest-physicians and medical practitioners. There seems to have existed a sort of rivalry between these two classes of physicians. The priest-physicians were more influential and the medical practitioners seem to have

accepted their supremacy. But in postvedic times, as mentioned in Manu, a controversy developed between the Brahmins knowing the vedas and magic and the caste of physicians, *viz.*, Vaidya (or Bhisaj, or Cikitsaka, or Ambastha). The lay physicians were gathering popularity, with the result the profession attracted all sorts of persons. Quacks began to abound and they were particularly responsible for the bad reputation of physicians, as a result of which it was laid down in Dharmasastra not to accept charity from a physician (cikitsaka). Yet the Ambastas whose business was the healing art, (Manu Laws, X-47) held a high position in the succession of castes, as they derived their descent from their father's side from Brahmana. (Manu Laws, X-8). As we have seen the teaching of the physicians, their selection, their complete training, both in theory and practice, was insisted upon and in the end they were required to obtain the permission of the king to practice. Susruta talks of two kinds of physicians. Those only were ranked as properly qualified physicians who had undergone an approved course, practical and theoretical, under a recognised preceptor. The physician who is only learned in the sastras, but is unacquainted with the practical methods of treatment and the one who knows the practical details of treatment, but from self-confidence does not study the sastras, is unfit to practice their calling. Such a person deserves to be killed by the king. (S. S. 1, 3).

With the rise of the schools of medicine, we have two classes of physicians, those that followed the school of Atreya, the physicians proper, and those that followed the school of Dhanvantari, the surgeons. As we have seen, the physicians had to be instructed both in medicine and surgery. Besides physicians and surgeons we have reference to a third class of physicians, *viz.*, the physician to the king (the court physician). This is the highest honour a physician can aspire to. These physicians were attached to the king's court and Susruta describes their duties (S. S. 1, 34). The king's physician was assigned certain special tasks. His task was to collaborate with the house priest. The physician by his knowledge of medicine and the priest by his knowledge of incantations should carefully and constantly protect the king from death caused by deranged humours or accidents. The prudent physician should always act according to the wishes of the priest. We see by the time of Susruta the functions of the priest-physician have undergone a complete division. The priest and the physician became two independent professions. One of the special duties of the king's physician is to safeguard the king against the possibility of being poisoned, a peril from which he is rarely free. In S. S. v. i. we have a special lesson dealing with the control by daily supervision of the royal kitchen and the dishes served to the king. The king's physician functioned as an army surgeon during the time of war. He accompanied the army and stayed closely by the side of the king and protected him from poisoning and purified the wells, food, etc. The physician should remain in a large tent close to that of the king, equipped with all the necessary articles of

treatment. Patients suffering from poisons, wounds or diseases should come with confidence to the physician there located as the banner of fame and reputation. The physician learned in his own sastras and acquainted with the other sastras shines as a banner and should be respected like the king. No wonder this position of a court physician coveted so much. (S. S. 1, 34).

From the Bower's Manuscripts it would appear that further specialisation had taken place. We read of children's physicians, *viz.*, Jivaka and Kasyapa, and also of eye-surgeons like Nimi. Special works on these subjects are attributed to these physicians. The reputation of the army physician was so great that Alexander gathered the most expert Indian physicians in his pavillion in order to cure serpent-bites and also other ailments.

In Charaka 1, 29, 11 we have a mention of "Consultant physicians". We do not know whether they formed a separate class or not.

THE ETHICS OF THE PROFESSION

The high status and the respect which the physician commanded, led to a careful guarding of the ethics of the profession. This was achieved through the long and thorough training demanded of the future physician. The choice of the profession of medicine was conditional, as we have seen, upon the good descent, preferably from a medical family and the possession of certain physical, as well as, moral, and intellectual endowments. Only reputed preceptors of high standing and learning could entertain pupils. The reputation of the preceptor depended upon the conduct and character of the pupil. As we have seen, at the initiation, in the presence of priests and physicians, the pupil took a vow, the fulfilment of which was considered a sacred duty, that he would truly observe the religious duties and the prescribed commands of the profession. The respect to religion and the high reputation the profession enjoyed were the considerations which kept the ethics of the profession at a high level. Susruta mentions of another restraining influence, *viz.*, the permission of the king. When the pupil has finished his apprenticeship, upon being recommended by his master, he received the permission of the king to practice. This permission of the king was necessary as otherwise the quacks would force their entrance into his kingdom and might prove a public calamity, says Dallana. Susruta remarks these quacks are allowed to exist or practice from the carelessness of the king. Physicians who are not properly trained and qualified should not be allowed to practice their calling. Such physicians deserve to be killed by the king. (S. S. 1, 3.) It is quite evident that this control must have become very lax as the number of quacks proved to be a public calamity. Charka is very severe on the quacks. He speaks of them "as cheats who wander about on the streets boasting in the garb of physicians: As soon as they hear of a patient, they hurry and

praise loudly their medical capacities so that they reach his ears. They try to win over the friends of the patient by all sorts of attention and emphasis that they would be satisfied with small remunerations. When they treat a patient and are not able to allay his pains, they assert that the patient does not take the necessary remedies, he disobeys the directions given and that he cannot control his desire. When the case is hopeless they run away. They try to praise their cleverness before uneducated people, and by doing so, they only betray their ignorance. They avoid the assemblies of educated people, just as a traveller avoids a dangerous forest. Nobody knows their teacher, pupil or fellow pupil" (C. S. I, 29, 11). Such quacks were particularly responsible for the bad reputation of physicians. Again and again we read protests against lack of long and thorough training, the implication being that an ignorant physician will be more of a quack than a scientifically trained one. The medical profession and the patients are warned against these quacks. Charaka says, "These men who, wearing the garb of physicians, seek to gratify afflicted persons like fowlers seeking to capture birds in the woods by having recourse to their nets or springes, those men who are unendued with scriptures, experience, (knowledge of) curative operations, time, measure and place, should be avoided. They walk on the earth like the followers (messengers) of Death. A wise patient should always avoid those foolish men with a show of learning who, for earning their sustenance, pretend to the honour of being physicians. They are like snakes subsisting on air. Salutations of reverence are ever due to able physicians who are conversant with the scriptures, possessed of cleverness, endued with purity of behaviour and heart, skilled in treatment of disease, of practised hand, and with souls under complete control". (C. S. III. 8).

With regard to the conditions of practice of the physician, no mention is made in the samhitas of hospitals or other places where the sick were attended to. Hospitals came into existence later in the time of Asoka, 274-236 B. C. The physician seems to have treated the patient in his house only. We have a mention of the four requisites for the success of treatment. These four are, the physician, the patient, the medicines, and the attendant on the sick. We do not know whether there was a separate profession of nurses or not and what the sex of the sick-attendant was. Most probably the sick-attendants were males. Their qualifications are laid down. The attendants on the sick should be amiable, capable of preserving secrets, strong in body and devoted to the care of the sick. They should carry out the orders of the physician and never be tired. (S. S. I, 34). Charaka mentions some other duties of the attendants. He should be of good behaviour, distinguished for purity or cleanliness of habits, attached to the person for whose service he is engaged, possessed of cleverness and skill, endued with kindness, skilled in every kind of service the patient may require, endued with general cleverness, competent to cook food and curries, clever in bathing or washing the patient, well-conversant in

rubbing or pressing the limbs, or raising the patient, or assisting him in walking or moving about, well-skilled in making or cleaning beds, competent to pound drugs, or ready and skilful in waiting upon one that is ailing and never unwilling to do any act that he may be commanded (by the physician or the patient) to do. (C. S. I, 15, 7). As we have seen Susruta remarks that a physician should have an attendant of good character. Perhaps these attendants were used as the attendants on the sick.

The physician did not go without remuneration for his services. In spite of the altruism inculcated in the oath, physicians looked forward to fees and other rewards. A physician mentioned in the Rig Veda (R. V. X-97) desires to receive a house, cattle and clothing by means of his healing herbs. He also expects to receive a rich fee. The highest aim of a physician seems to have been to treat a king and become the physician of the king. These court physicians must have been well paid and lived in affluence. Jivaka Kumarabhacca, a contemporary of Buddha and physician to Bimbisara, received very high honorarium for his wonderful cures. The fees do not seem to have been always in cash but mostly it was in kind.

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Public Health and Medical Relief in Deccan under the Bahmanides (xiv and xv centuries)

BY

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The Bahmani daynasty which rose to power in 1347 and ruled over the Deccan for a century and a half was the sponsor of a splendid culture. The country owes to it many cultural achievements in various social and political fields. To put in brief, the Kings of the dynasty, expounded sound principles of administration to guide the destinies of their subjects; they established schools and colleges for their intellectual uplift; they laid out well-planned cities and gardens to improve the sanitation of the country. But it is more creditable to the memory of the Bahmani Kings that they, in the midst of the multifarious activities of the state, never ignored the pressing problem of public health. Their interest in the problem found expression in various ways. They patronised able physicians, established hospitals, supplied medicines to the patients and laid out spacious cities and gardens to avoid congestion and contamination of air.

There are many reasons to believe that the Bahmani Kingdom, from its very inception directed its energy to-wards the promotion of medical learning and relief. Alauddin Bahman Shah, the founder of the Kingdom (1347-1358) was as fond of medical scientists as the scholars of other branches of learning. Among the scholars whom the King patronized, two physicians of repute, Hakeem Alumuddin Tahrazi and Hakeem Naseruddin Sherazi, figure prominently. The King moved in the company of scholars and physicians.* The change of capital from Doulatabad to Gulberga, to Bider and then Ferozabad had medical motives behind it. Details are lacking about the lay-out and sanitary arrangements made in the city of Gulberga where the capital was shifted in the earliest reign. But the lay-out of Ferozabad by Feroz Shah Bahmani (1397-1422) was certainly motivated both by the easthetic taste and the sanitary incentive of the King. The historians say that the lay out of the city of Ferozabad was motivated by the desire of the King to avoid the congestion and the unhealthy atmosphere of his capital. Gulberga, being centre of the extensive dominion as the Bahmani Kingdom was, had become over-populated and had consequently given rise to epidemics. It was this reason which prompted Feroz Shah to

found a new city on the bank of the Bheema river in the vicinity of present Yadgeer. Here the King built many palaces overlooking the river and laid out gardens. The outskirts of the city were dotted by a larger number of verdant gardens, which added to the gaiety and good health of the citizens. The King retired to the city frequently and enjoyed its healthy climate.*

The change of capital from Gulberga to Bider in 1428 under Feroz Shah's successor Ahmed Shah Wali Bahmani (1422-1434) is a historical event of great significance. The change was again caused by sanitary incentive. Bider is a plateau nearly two hundred feet high from the surrounding country and 2,250 feet high from the sea level. Ahmed Shah Wali was attracted by its, high level, red soil and healthy climate. The capital was shifted in 1428 but it took two to three years more before the transition was completed and the whole governmental machinery with nobility and gentry was transferred there. Ferishta is loud in the praise of the new capital. He admires its red soil and its fertility suitable to the growth and culture of best fruits like figs, grapes and guavas. Not only the fruits were grown in abundance under the care and supervision of the Kings and Ministers, but they had also ventured the cultivation of Saffron.** Ali bin Azceezullah hails the city with its blooming gardens and fragrant flowers, as the second heaven.†

The interest of the Bahmani government was heightened in the reign of Alauddin II who is inscribed on the coins, Ahmed II, Ahmed bin Ahmed (1434-1461). Ali bin Azceezullah speaks of him in high terms as an highly educated monarch endowed with humane qualities such as generosity and forbearance. Although according to the historian, the King spent much of his time in luxuries, yet he never failed to bestow his best favours on the poor, needy and down trodden. One of the charitable institution of the king was a hospital, Daru-shifa, built by him in Ahmedabad Bider. According to the historian the hospital was so designed and constructed as to be grand and beautiful. Expert physicians were posted in the hospital to look after the ailing people especially the sick destitutes. Two villages, which yielded handsome revenue were assigned to the hospital for its maintenance. Drugs and mixtures were given to the patients till they were relieved of their physical ailments.‡ According to Ferishta physicians belonging to both the communities, Muslim and Hindu, were appointed to look after the patients, and the assignment of the villages which according to the historian, numbered more than two, were intended to provide free medicine and

* Ferishta, part III, page 308-309. Mahbulul Watan Abdul Jabbar Khan, pp. 471-472.

** Ferishta, part III, page 325.

† Burhan-i-Massir Ali bin Azceezullah, Hyderabad edition, pp. 54-55.

‡ Burhan-i-Massir Ali bin Azceezullah, Hyderabad edition, p. 87

*Ferishta, part III, page 281.

drugs to the patients.* If Abdul Jabbar Khan is to be relied upon, the idea of hospital was conceived in the interest of the poor and sick destitutes. Both the Unani and Indian physicians, were posted to treat the patients. The villages assigned to the hospital were meant to defray the expenses incurred in the supply of medicines, food and the emoluments of the hospital employees. Medicines and food were supplied to the patients free without the distinction of caste and creed. Both the communities, Hindu and Muslim, derived full benefit from the hospital management. The poor patients who could not afford medical treatment, were lodged in the hospital until they were cured. The in-patients were supplied clothes besides medicine and food. The patients lived in the hospital with perfect ease and comfort and they were discharged after the recuperation of health.†

*Ferishta, part III, page 333.

†Mahbubul Watan, Abdul Jabbar Khan Asafi, page 553-554.

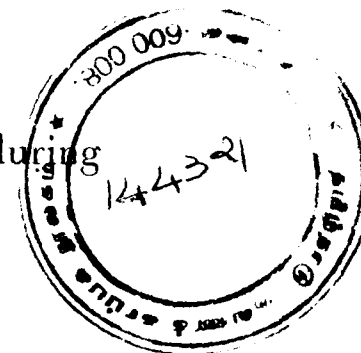
Abdul Jabbar Khan is a modern historian who compiled his history in 1893 but he has based his work on contemporary sources and therefore his statement may be taken as authentic. Unfortunately the authorities which he has consulted are no longer extant. According to the historian, they are washed away in Hyderabad flood in 1908.

Diseases, Medicines and Physicians during the Peshwa Regime (1713-1818)*

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During the regime of the Peshwas *i.e.*, from 1713 to 1818 the state Government of Maharatta Kingdom did not organise any education department. But patronage was extended to such of the persons who devoted their lives to this cause. But the problem of public health was more serious and vital; hence the state support was offered to physicians and bonesetters much more liberally than to any other cultural agencies. The Vaidyas studied the old Sanskrit works like Charak, Nighanthu and Waghbat, maintained a pharmacy and practised as regular physicians. They coached students under their own supervision and gave them practical training in the preparation of medicines.

Expert Physicians generally congregated in the capital but there were others who prospered under the patronage of well-to-do Sardars and other potentates. Those who attended upon the royal personalities were called Raja Vaidyas. They were paid regular salaries; medicines were generally cheap but those with special potency required Gold, Pearls and Coral. Patrons supplied these materials and the medicines prepared out of them were some times used for curing diseases of the poor. Physicians expected blessings from the poor and if some offered money willingly, out of gratitude, the physicians accepted it.

There were reputed physicians within a radius of thirty miles in some town or other. Of these, those who were large-hearted and rendered free medical aid to the ailing sufferers, were selected by the State for special grants and compensatory rewards. These physicians had acquired medical knowledge through traditional teachings of the Ayurveda. But when the Muslims from Arabia, Persia and Afghanistan came to India and established kingdoms, experts called Unani Hakims accompanied them. No competition or rivalry was ever visible between these two groups and the people always delighted in deriving the benefits of good health from both.

As the European traders entered into India and later began to build their strongholds in the 17th and 18th centuries, many Portuguese, Dutch, French and English doctors, surgeons and quacks came into the country.

*The article is based on Chapter 9, entitled "physicians, medicines, diseases etc." in the book, *Peshwa Kaleen Maharashtra* (Maharashtra during Peshwa Regime) by Sri V. K. Bhawe, Poona, 1935.

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Rich and well-to-do persons enlisted even these foreigners into their service. Royal families thus had Vaidyas, Hakims and European doctors under their patronage.

There is a reference to the illness of Shahu (1708-48) at Satara when the royal physician had failed to bring relief to Shahu the services of Sadashiv Bhat Nanal were requisitioned. Sadashiv Bhat was given a grant of one chavar land at Nasvapur.

The Chatrapati lived at Satara but the Peshwas made Poona their headquarters. Naturally Peshwas provided their headquarters with all those amenities required for their needs. However, in the matter of medical help they had to depend upon the physicians at Satara until late in the reign of Nana Sahib Peshwa. As an instance of this helpless position of the Peshwas the following episode may be related. Nana Sahib Peshwa's wife Gopika Bai was confined at Poona and soon after the child-birth she developed septic fever. The family was unwilling to enlist the services of the local vaidyas to treat the fever. It was decided to call for the help of one Dattajipant who was at Satara. When Shahu Chatrapati was requested to send this Vaidya, he pleaded that he could do so only after obtaining the leave of his Queen to whom this physician was attached.

As the Peshwa had no personal physician attached to him, medicines were also not near at hand when required. To wit young Madhava Rao and someone else in the family had taken ill. The physician who was to prepare medicine for him was one Badan Kavishwar. He lived in a distant place. Nana Sahib had therefore to instruct a local official of the place where the physician lived to supply him with the ingredients necessary to prepare the medicine. Much time was wasted before the medicine could be prepared. Nana Sahib had to write pressing letters to local official to arrange to send the medicine with the physician without delay. The lot of the common man can be easily imagined under this state of affairs. No wonder many patients died on account of the want of good medicine and some for want of medical attention.

The other serious defect in the system of vaidyas was that their medicines would not bring about prompt relief. Epidemics were common and deaths caused by them could not be prevented on account of inefficacy of Ayurvedic medicines. At the termination of the rainy season malaria would violently assail the country and hundreds of persons would be affected. Even with the administration of Quinine malaria does not radically subside and therefore one can imagine the condition of patients when Quinine was unknown in India.

There are references in the Peshwa Daftar records which show that in 1788 Bajirao II the son of Raghunath Rao, and the last of the Peshwas who died at Bithur in U.P. in 1851 was suffering from malaria. His wife

Bhagirathi Bai also suffered from the same disease. Both of them had become very weak and Bajirao even suffered from Jaundice and yet did not give up his excesses.

There is a letter of 1739 addressed by Krishna Rao Mahadev to Bajirao I (1720-1740) from which the general condition of health and disease can be ascertained. The writer says "Fever has assailed the whole region. Households after households are having only bedridden members without any body even to fetch a sip of water. Sakhojee Shinde is seriously attacked and he is even unable to put two words together to speak. Many are dying; in Lohagad six persons passed away. In Konkan which is exposed to such severe attacks annually, the fever epidemic has levelled all. Crops are lying uncared for in fields and cattle are freely grazing there. Even my mother and two other relatives are ill at Kalyan and so I have come here".

In India there were several princes and princelings among Hindus and Muslims, but they were free from communal bias especially in matters like diseases and their cure. Great Hindu princes engaged expert Muslim Hakims on their staff. The Nizam had Unani Hakims and also Hindu Vaidyas in his service. During the days of Nana Sahib, the third Peshwa (1740-1761) there is a reference which indicates that the Nizam had one Bharamanna, a Kannad Vaidya in his service. Kashibai, the wife of Nana Sahib, suffered from an incurable wound on the foot. A well-wisher of the Peshwa writes from Hyderabad that if the Nizam is addressed a letter to spare the services of Bharamanna and if the details regarding the disease and the wound are given, the writer would take the Vaidya with necessary medicines to Poona.

Nana Sahib had one expert Hakim with him. In a letter addressed by Krishna Rao Bapu to Sadashiva Rao Bhau, the Maratha commander in the third battle of Panipat 1761, it is stated that Nana was suffering from serious illness and the expert Hakim was treating him by regulating his digestion and motions. Raghunath Rao had once enlisted the service of one Mustafa at Rupees 250/- per month. Whenever Hindu Vaidyas failed to cure the disease, services of Muslim experts were requisitioned.

Since the days of Bajirao, along with Hindu Vaidyas and Muslim Hakims, even European doctors appeared on the scene. Doctor Sandow is mentioned to have rendered some service to the Peshwa. The Hindus of the day, like their present brethren, had some unwillingness to accept European medicines but when Vaidyas and Hakims failed to restore health, European medical aid was secured. Raghunath Rao Peshwa had addressed Nana Phadnis from Anand Valli, near Nasik, a letter asking Nana to send some good tooth powder to remove the weakness of his teeth and strengthen them. He adds that certain Moroba Vaidya at Poona knew about the preparation of powder which would add to the lustre and strength of the teeth. Raghoba also refers to Laksha oil ordered to be sent to him.

Raghunath Rao's wife Anandi Bai wanted the special preparation of Pearl oxide to be made in her presence at Anand Valli and so pearls worth Rs. 20/- per tola were sent to her.

Besides European doctor and muslim Hakims, even Armenian physicians were establishing their influence in Maharashtra. Trimbak Rao Vishwanath Pethe had informed Raghunath Rao that the Armenian doctor with necessary material and some assistants is ready to be despatched. Even the Padre at Rawadanda was going to Bombay and then proceeding to Raghunath Rao with necessary materials. Christian missionaries seem to have come with the double purpose of giving medical help and spread their own religion.

The harbour of Rawadanda was in Portuguese possession but Bombay had established its superiority to every other harbour on the Western Coast. So the Padre wanted to go to Bombay. The Europeans even then had started to capture the occupations of Indians. Such Christian doctors were conveyed through palanquins and their heavy expenses were borne by the sick and the suffering. In 1773 a Padre was taken to Poona Darbar and he was being paid Rs. 150/- per month.

In his last illness, Madhav Rao I (1761-1772) was advised to secure the assistance of European doctor, Bodgwell or Stuart, who were attached to Nawab Nizam Ali Khan (1761-1802). Madhav Rao Peshwa insisted on Doctor Stuart's help but laid a condition that he should accept the service and receive monthly salary of Rs. 300/-.

During the regime of Madhav Rao II (1774-1795), the English medical influence began to grow. Doctors Findley and Crusoe missionaries had become well settled in Poona. Mr. Findley, besides being a surgeon, was also a teacher of Geography to Madhav Rao. The Peshwa once suffered from an abscess on account of a thorn prick. This could have been cured with the assistance of barbers, but the surgeon treated the case. In the diary of the Peshwa, this mention is made. Even the people had begun to realize that English medicines are more effective in bringing about instantaneous relief. It was also admitted that surgical operations were very well done by doctors and vaidyas were not good at this. The missionary doctors in Poona had acquainted the people with foreign treatments. By the time Peshwa rule was dwindling new discoveries were being made in the European medical science, and no wonder that people in Maharashtra were amazed at the startling treatments of medical doctors! During the days of Baji Rao (the second) II, vaccination had brought a magical relief to several sufferers from small-pox, which took a fatal toll of many persons or disfigured them and also blinded many. Vaccination was very eloquently admired by all as a magical preventive. There is a record of 21—1—1807 which states

that Baji Rao II had got himself vaccinated and paid Rs. 2000/- to the doctor. Baji Rao also got his own wife and children vaccinated and praised the new method as divine.

Though the European doctors were thus producing a great influence as experts in medicine, the common people did not come into direct contact with them. These doctors were looked upon as untouchables and their medicines also were suspected as some thing irreligious. The Indian doctors did not endeavour to learn anything from them and the princes also did not encourage such a study. The aristocrats did not do anything to revive the old Ayurvedic science. Cure of diseases was vital subject, if one method or treatment, failed to bring relief, they would try another method but did not dream of doing anything to study the ancient systems thoroughly. When the administration achieved a great efficiency during the days of Madhav Rao I, there were several departments which functioned satisfactorily and among them there is a mention of medical department entrusted to the charge of Sham Rao Babu Rao Karmarkar. Preparation of Indian medicines was a very onerous task, their successful result was a slow process. Madhav Rao I suffered from tuberculosis but could not afford to stay at home; so he writes to Nana Phadnis from the camp in 1767 "Please send the 'jelly of Amalakas' and 'Chyawan Prash'. It may be available with Baba Vaidya. Also send a pound of 'Shilajit' soaked in 'Gomutra' and dried and two pounds of 'Suravari Hirda'. This is an invigorating tonic. When Madhav Rao failed to regain his deteriorating vitality, he determined to spare nothing for the restoration of his health. Madhav Rao consulted some famous Vaidya Ranachod who belonged to upper India. There was a very well known Vaidya Ganga Vishnu at Savai Jainagar. Madhav Rao secured his services first for three months but Madhav Rao's illness could not be cured. Therefore Madhav Rao Peshwa sent Chapaji Tilekar to bring the physician requesting him to stay with his family at Poona (Chapajee Tilekar is that famous person who got himself butchered to save the life of his master, Narayan Rao Peshwa in 1774). Many people in Poona derived immense medical help from Ganga Vishnu. There is a reference which shows that Ganga Vishnu was sent to Gangapur near Nasik where the mother of Madhav Rao, Gopika Bai was residing, to treat her in her illness.

All diseases are not curable through physicians. Madhav Rao had therefore employed Bone-Setters and quack surgeons who would be of immense use in battles. There was a team of such workers. The monthly salary of a bone-setter was Rs. 35/-. Surgeons were paid as follows: Bade Khan and Raja Mohammad Rs. 22½/- Raja Malik Rs. 18/- and Saheb Khan Rs. 15/-.

Notwithstanding many Vaidyas, Hakims and Europeans, Armenians were specially preferred. It has been shown that the Armenian physicians

were experts in preparing oils. In one place the oil prepared by the Armenians out of *Balantashopa*, *Shahijeera*, *Agnisuna* were requisitioned by Madhava Rao in his camp. He has also requisitioned for the essence of sulphur and *Jungli Pudina* to procure which specific instructions had been given to a certain fisherman in Poona. This letter dated 1771 reveals the miserable condition of Madhav Rao's health. May be that all these medicines were not required for Madhav Rao alone. Ramaji Mahadev of Salsette had sent 75 *Surans* the roots of some variety.

Mir Abu Tal of Surat had sent medicines worth Rs. 1000/-. Pearls at the rate of half a rupee per pearl were obtained for the pharmacy. Pearls worth a thousand rupees were sent to Anand Valli from Poona for the preparation of medicines. In 1767 a physician who had promised to prepare a cure for small-pox was given a few pearls freely. In 1772 a Vaidya by name Rajeswar was employed by Government on a salary of Rs. 150/- p.m. The Peshwa's army was accompanied by Surgeons, and bone-setters. Small-pox and cholera were the unfailing guests of the Maratha camp. In 1786, when Haripant Phadke had gone to Karnatak against Tippu Sultan, hundreds of soldiers died of cholera. Even a Vaidya, Dhond Bhat by name, fell a victim to this epidemic and therefore Nana Phadnis was requested to send Moreswhar Bhat, the son of Anna Bhat.

Even the horses in the cavalry used to suffer from diseases. Physicians and specialists in horse's diseases were attached to the stables. Visaji Raghunatha cavalry officer writes from Mouje Kuslamb, Paragane Jamkhed, Khandesh, to Nana Saheb Peshwa that an inexplicable disease which has baffled the skill of local veterinarians has affected the horses and many deaths of horses had been caused. The letter further states that a Babool tree which is possessed by super-human elements delivers message that the cavalry should be shifted to some other place. This incident reveals the inefficacy of the medicines and therefore the God Khandoba had to intervene.

Mahadaji Shinde had on his staff a physician by name Sukhadeo Mishra. He was in the employ of the Subedar Naro Shankar Raje Bahadur at Jhansi where he was getting Rs. 2½/- per day for his special skill. The Sardar Mantri at Islampur in Satara District patronized a physician by name Shivram Bhat. Shivram Bhat's services were enlisted by Govind Hari Patwardhan of Miraj but as the physician and the patient were both eccentric and short-tempered the doctor and the patient could not agree. The liquid extracts of Shivram Bhat were detested by Patwardhan as unpalatable and bitter but the physician would not budge an inch. Govind Hari Patwardhan after dismissing Shivram Bhat obtained the medical aid from Vidyadhar Joshi of Kolhapur. But this physician seems to have surpassed Govind Bhat in his obstinacy. The patient praises the medicine

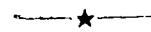
for its efficacy but curses the physician. This incident is described at length to show how difficult it was for patients to get medical advice from doctors notwithstanding their expert skill.

All physicians were not of such a severe and eccentric nature, true but a majority was of the same kidney. The powders and the extracts were extremely bitter and unpalatable and the diet prescribed was intolerable. Physicians were not appointed officially but if the Government learnt that a certain physician treated patients and dispensed medicine freely and that he also imparted medical instructions to deserving students, Government extended its patronage to him. Lands and villages were permanently given as grants. These grants passed by inheritance with the object that the sons of the physicians may also betake themselves to their father's occupation. When physicians sprang in each generation in the same family their dispensaries functioned like the municipal hospitals. The poor and the needy received medical assistance at no cost. The profession of Vaidyas and surgeons had not become so lucrative as in modern days and therefore Government had to sanction grants for the maintenance of these physicians.

In the Peshwas' diary there is a reference which shows that Vedamurthy Pran Govind Bhat, the son of Hari Bhat Trivedi a Samavedi physician, resident of Ahmedabad, had approached the Peshwa at Poona with a request that, he, being a righteous person performing "Snan Sandhya and Shant-Karma" dispensed medicines to the poor freely and prayed for the growing prosperity of the King and the State, he should be granted Mouje Mithapur, Pragane Dasakroi Prant, Gujarat, as an Inam. This grant indicates the refined standards maintained by physicians to whom grants were given.

Just as Government was extremely considerate to reward the services of meritorious physicians it also prohibited quacks from passing on as experts and cause greater harm to the patient than the disease. There is a letter published in the 43rd volume of the Peshwas Daftar Series dated 1694 Nandan Nam Samvatsar, Chaitra Krishna 13, (3-4-1772 A.D.). This letter contains a statement from Kuppa Sastri resident of Uma Maheswar in the vicinity of Kumbakonam. The Sastri admits that he never studied physiology and medicine and yet was practising as a Vaidya. He promises that he will never pursue the profession again and that he should be looked upon as a culprit if he did so. The statement bears the signatures of six sastris as witnesses. Whether the person who had suffered at the hands of the quacks had lodged complaints with the Peshwa or Madhav Rao himself had derived some bitter experience from the faulty treatment of the physician, when at Poona, is difficult to determine.

Grants to vaidyas were not of a uniform nature. Ranasode Naick Vaidya of Janjira near Bassein was given free quarters, six cocoanut trees, 3 guava trees and 3 pomagranate trees. Naroram Vaidya of Nawapur Prant Baglan was granted Rs. 325/- annually as Dharma Patti from the collections at Uraphad Anakaleswar Hasot Parachole and Supa. While granting these rewards no discrimination was made against the caste, religion or region of the person concerned. As will be seen from the names of the grantees some of whom are Gujarathis. "Phirmanting Padre" a physician of Janjira Ravadanda was granted Rs. 25/- annually and one Khandi paddy for his social service. Though the Peshwa maintained Government dispensaries in Poona, there being greater facilities in the rural parts, medicines were obtained from the country parts. Vedamurthy Appa Bhat, a Vaidya of Wai, was entrusted with the responsibility of preparing Rasayans and was granted land to sow medicinal plants. He was also ordered to be given water from the irrigating canal free of cost. There was also a clause in the grant that if the physician, failed to act up to his promise, the grant should be withdrawn. Whenever the son of a physician had some difficulty in enforcing the grant, notwithstanding his continuing to do the same profession of his father, the son would approach the Government to assert his claim. A reference to the Peshwa's diary shows that Bhima Shankar Bhat the son of Vasudeo Bhat Vaidya, resident of Sangamner had approached the Government to assert his right and to claim the annual grant of Rs. 200/- assigned to his father, Vasudeo Bhat, who was dispensing medicines to the poor and the needy without any remuneration. Bhima Shankar Bhat's claim after the death of his father was acknowledged by the Government and the grant of Rs. 200/- was continued.



Medicine in the Rig Vedic Period

BY

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Rig Veda is the most ancient record of Indian Culture. It carries us back into a pre-historic period about which we do not have a very definite proof. Max Muller (1860) after a critical study of ancient sanskrit literature considers it as 'one of the oldest books in existence'; and estimates that the verses in this Veda must have been composed between 1000-1200 B. C. or even earlier. Professor Jacobi, however, believes that the Rig Vedic hymns must have been composed much earlier—about the 3rd millennium B. C. But, Professor Keith (1925) doubts whether the Aryans had even migrated to India at this early period and suggests the probable date to be about 1400 B. C. After analysing the astronomical evidence in the Rig Veda, Colebrooke (1801) arrived at the conclusion that the age of the Rig Veda to be not earlier than 14th century B. C. Max Muller (1862) after a thorough discussion of the different papers by various writers on this aspect of the problem, appears to agree with the date given by Colebrooke. According to Wilson (1850) 'we can scarcely be wrong in assigning a very remote date to most, if not to all, the suktas of Rig Veda and in considering them to be amongst the oldest extant records of the ancient world'. So from all the available evidence we can conclude that the Rig Vedic era was about the 15th century B. C.

The Rig Veda consists of ten Mandalas or books, each about 100 suktas or hymns— a total of more than 10,000 stanzas composed by various Rishis or sages. As it is the most ancient work on India, we find that medicine as practiced then was not far different from what was practiced in a similar society with a primitive culture. It mainly consisted of hymns or chants, prayers or incantations to drive away disease. Medicine had its patron deities, its gods and demigods as in early Egyptian and Greek medicine.

Aswins (also called as Dasras or destroyers of disease) are twin divine physicians. They helped gods as well as human beings. Most of the prayers for the relief of suffering or sickness are addressed to these deities. They are said to be conversant with all medicaments (I. 157, 1 to 6). Numerous instances are also cited where these gods brought about miraculous cures or relieved suffering. They bestowed eyesight to the blind sage, Kakshivat (I. 20, 6) and Kanwa (I. 112, 5); hearing to the deaf son of Nrishad (I. 117, 8); and enabled the lame Paravrij and cripple Srona to walk (I. 112, 8). When Vispala, the wife of Khela got her foot severed 'like the

wing of a bird' in an encounter with the enemies, the Aswins (in response to Agastya's prayers) gave her an iron leg (artificial limb) so that she might walk (I. 116, 15). They also conferred fertility on sterile couple (I. 116, 13) and made the aged sage Chyavana young and handsome by replacing his wrinkled skin 'as if it had been a coat of mail' (I. 116, 10). They rescued princes and sages from dangers (I. 116, 5 to 9). They learnt Madhu Vidya or mystic science of immortality from Dadyach (son of Atharvan) and restored his head when it was severed by Indra (I. 116, 12). Most of these achievements have been repeatedly stressed in invoking their help throughout this Veda (VII. 68 and 71; VIII. 5; X. 39, 40, 65 and 143).

Rudra is also another deity who is considered as 'Chief physician among physicians (II. 33, 4) holding in his hands excellent medicaments and by whose directions we get freedom from disease (I. 114, 2 and 3).

At that time it was usually the priest who combined his office with that of the doctor. 'The sage is designated a physician, destroyer of evil spirits and the extirpator of disease' (X. 97, 6). This passage gives briefly but aptly his important functions. In another hymn, however, there is mention of the physician as a member of a separate profession (Griffith, 1896) :—

"We all have various thoughts and plans; and diverse are the ways of men :

The Brahman (or priest) seeks the worshipper, wright seeks the cracked (wheel) and the physician the maimed.

The smith seeks the man with gold.....

A poet am I, my father's a physician and my mother a grinder of corn.....

Striving for wealth with varied plans we follow our desires like kine". (IX. 112, 1 to 3).

Names of some of the priest-physicians found in Rig Veda are Medatithi, son of Kanwa (I. 23, 19), Praskanwa (I. 50, 11), Agastya (I. 191), Bhishaj, son of Atharvan (X. 97), Yaksmanasana, son of Prajapathi (X. 161) and Vivrihan, son of Kasyapa (X. 163).

The physician then aimed at recovery of the patient and as a reward expected a horse, a cow and a garment as fees (X. 97, 4).

Their knowledge of human anatomy was very limited. They could enumerate the sense organs, limbs, neck, bowel, heart, liver, kidneys (like mango-fruits in shape situated on either side of the body and identified as kidneys by commentator Sayana), bladder, urethra and genitals (X. 163). See Hiranyastupa's prayer to preserve the well being of the 'thridathus'

or three humors of the body (I. 34, 6) has been commentated on in detail by Ayyar in a recent paper and shows beyond doubt that during the Rig Vedic era they were acquainted with the three humors of the body. Average life span at that time was about 100 years or 100 winters. Their funeral rites—cremation and burial of bones and ashes in a covered urn—are described in the last book of the Rig Veda.

In the Rig Vedic texts, there is an occasional mention of some of the diseases prevalent at that time. Jaundice, Leprosy or white tinted skin (I. 122, 5), Yaksma or tuberculosis, Sipada disease (or elephantiasis according to Wilson, VII. 50, 4); eruptive fevers (?) with eruptions over all the limbs (VII. 50, 2) and abortions are mentioned. Snake bites and scorpion stings must have been frequent.

They used very few drugs. Water was praised for its medicinal qualities by Medhatithi (I. 23, 19 to 21) and again by Sindudivipa (X. 9, 57) in almost identical words as follows. "Ambrosia is in the waters; in the waters are medicinal herbs. The waters contain all healing herbs. Waters bring to perfection all disease dispelling medicaments for (the good of) my body that I may long behold the sun (or live long)". Again, in the last Mandala, it is administered to a patient with a hymn "waters verily are medicinal; waters are the dissipators of disease; waters are the medicine for everything; may they act as medicine to thee" (X. 137, 6). Wind was also considered as 'Universal medicine' (X. 137, 3) and especially when there was general debility (VIII. 21, 26). Most frequently reference is made to the Soma juice. The Soma plant is believed to be of celestial origin and its juice was extracted by crushing its yellow stalks between stones and filtering the fluid through wool or kusha grass. The amber colored juice was then collected into a bag of cow-hide and served in ladles, usually mixed with ghee, butter, curds or barley. It was used for sacrificial rites as well as for medicine. The whole of the ninth book of Rig Veda deals with Soma, the purifier. According to Wilson, the only explanation for its praise may be the "discovery of the exhilarating, if not inebriating properties of the fermented juice of the plant must have excited in simple minds, on first becoming acquainted with its effects". The sweet exhilarating Soma 'inspires speech and develops intelligence' (VI. 47, 3), 'speeds us to mental power and skill' (IX. 36) and 'wins gold, goods and cattle' (IX. 86, 39). Soma is also described as 'sick person's medicine' (VIII. 61, 17 and 68, 2). It is likely, as pointed out earlier by Wilson that all these effects were due to the alcoholic content of this beverage.

Herbs were also extensively used. They were dug by physicians. Names of some of the plants used in medicine are described. About 106 herbal preparations are claimed (X. 97, 1 and 4). Haridrawa, a yellow vegetable powder, was used for treatment of Jaundice (I. 50, 12). They might have been aware of the value of tourniquet in war surgery

VIII. 1, 12). Visha Vidya or Science of poisons and antidotes consisted mainly of incantations to ward off poisons or poisonous reptiles. They also used birds (partridges and sparrows) to remove the poison from snake-bites or wounds inflicted by poisonous arrows (I. 191; VII. 50).

But these early physicians depended mainly on hymns for the relief of suffering and prevention of ill health. Some of these prayers consist of stanzas forming a triplet or 'Trica' on repetition of which with due formalities it was hoped that the disease would be cured. One such triplet about 'Hridroga' or heartburn and 'Harimanam' or jaundice runs thus

O Sun, remove the sickness of my heart and the yellowness of my body. Let us transfer the yellowness of my body to the parrots, to the parulings or to the Haritala tree. The sun has risen with all his might destroying my adversary; for I am unable to resist my enemy (sickness) (I. 50, 11 to 13). Similarly there is another interesting triplet styled by Jayana as 'Garbasravinayupanishad' or liturgy of child-birth, praying for the safe delivery of a boy (who is covered by membranes inside the womb) after a gestation of ten months with the least harm to the mother (V. 78, 7-9). Special prayers were also composed to ward off sickness that attacks the embryo and the womb to cause abortion; (X. 162) and for the benediction of the embryo so that it may be well sustained and brought forth at the 10th month (X. 184). Hymns for the cure of royal or declared consumption are also given in detail (X. 161).

Evolution of medicine in India, therefore, was also on similar lines as elsewhere. Initially, the physician was a priest and the medicines were mainly the prayers to drive away sickness or evil spirits and restore the patient to health. These were supplemented by few herbs. From these beginnings, progress was made in the course of the next 8 to 10 centuries before medicine could be taught as a separate subject in the University of Taxila or medical commentators like Susruta and Charaka could write their exhaustive and valuable works.

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Jeevaka, A Physician of VI Century B. C.

HIS LIFE AND ACHIEVEMENTS

Dr. D. V. S. REDDY.

Among all the ancient Indian physicians and surgeons whose names have been transmitted down the ages, either by oral tradition or written records, Jeevaka stands out clearly as the first and the most interesting surgeon, belonging to a particular epoch, 6th Century B. C., in historic times. He had the unique distinction of being a Royal physician to the kings of Magadha and also a lay-disciple and a medical attendant of Buddha, the Compassionate. *Brahma*, the original fountain of all knowledge, including Ayurveda, *Indra*, the God of heavenly Empires, the *Aswins* the celestial physicians, *Dhamevantari*, the God of Healing who emerged during the churning of the ocean, the Aryan sages like *Bharadvaja*, *Atreya*, *Agasthya* and the Royal sage, *Divodasa* of Kasi, who were the first teachers of Ayurveda in Bharatha Varsha, the learned writers, Agnivesa, Sushruta and Charaka, are legendary names which float among the clouds and mists of antiquity, like shadows and phantoms.

It is both possible and desirable to collect and arrange the biographical data about Jeevaka and Clinical Reports from various sources for the benefit and inspiration of the present age. This is an attempt to present a short account of the life, achievements and spirit of Jeevaka.

In this article I have selected and arranged long extracts, quotations and dialogues as given in Vinaya texts part II, Mahavagga, 8th Khandika—English translation by T. W. Rhys Davids and Holdenberg (Oxford, 1882). All references in the text are to the pages in the above publication. It is hoped that this article will stimulate collection and search for further information and legends in other sources, printed or Manuscript, Indian or Tibetan and Chinese.

BIRTH AND CHILDHOOD

“Now, at that time, there was at Ragagaha a girl Salavathi by name, who was beautiful, graceful, pleasant, and gifted with the highest beauty of complexion. That girl, Salavathi, the Ragagaha merchant installed as courtesan. And before long the courtesan Salavathi was well versed in dancing, singing, and luteplaying, and much visited by desirous people, and she asked one hundred (Kahapanas) for one night. And before long the courtesan Salavathi became pregnant. Now the courtesan Salavathi thought: ‘Men do not like a pregnant woman. If anybody should find out regarding me that, “The courtesan Salavathi is pregnant”, my whole position will be lost. What if I were to have the people told that I am sick’.

And the courtesan Salavathi gave orders to the door-keeper (saying), 'Let no man enter here, my good door-keeper, and if a man calls for me, tell him that I am sick'. The door-keeper accepted this order of the courtesan, Salavathi (by saying), 'Yes, Madam'.

"And the courtesan Salavathi, when the child in her womb reached maturity, gave birth to a boy. And the courtesan Salavathi gave orders to her maid-servant (saying), 'Go, my girl, put this boy into an old winnowing basket, take him away, and throw him away on a dust-heap.' The servant accepted this order of the courtesan, Salavathi (by saying), 'Yes, Madam,' put that boy into an old winnowing basket, took him away, and threw him away on a dust-heap.

"At that time, a royal prince, Abhaya by name, or (Abhaya Kumara) went betimes to attend upon the king and saw that boy, around whom crows were gathering. When he saw that, he asked the people: 'What is that, my good Sirs, around which the crows are gathering?'

'It is a boy, Your Highness'.

'Is he alive, Sirs?'

'He is alive, Your Highness'.

'Well, my good sirs, bring that boy to our palace and give him to the nurses to nourish him'.

And these people accepted that order of the royal prince Abhaya (by saying), 'Yes, Your Highness', brought that boy to the palace of the royal prince Abhaya, and gave him to the nurses (saying), 'Nourish (this boy)'.

Because (the people had said about this boy to Abhaya), 'He is alive' (Givati), they gave him the name of Givaka; because he had been caused to be nourished by the royal prince (Kumarena Posapito), they gave him the name of Komara-bhakka.* (pp. 172-174)

EDUCATION AT TAXILA.

Givaka grew up and when he came to the years of discretion, he wanted to learn art and to earn a livelihood.

"At that time, there lived at Thakksasila, a world-renowned physician. And Givaka Komara-bhakka without asking leave of the royal prince Abhaya set out for Thakksasila. Wandering from place to place he came to Thakksasila and to the place where that physician was. Having approached him, he said to that physician, 'I wish to learn your art, doctor'.

* Other terms: Kumara - Bhritiya, Kumara - Rakkhita.

'Well, friend Givaka, learn it'.

And Givaka Komara-bhakka learnt much, and learnt easily, and understood well, and did not forget what he had learnt. And when seven years had elapsed, Givaka Komara-bhakka thought: 'I learn much and learn easily, and I understand well, and I do not forget what I have learnt. I have studied now seven years, and I do not see the end of this art. When shall I see the end of this art?'

And Givaka Komara-bhakka went to the place where that physician was; having approached him he said to that physician: 'I learn much, doctor, and I learn easily; I understand well, and do not forget what I have learnt. I have studied now seven years, and I do not see the end of this art. When shall I see the end of this art?'

'Very well, my dear Givaka, take this spade, and seek round about Thakksasila a yojana on every side, and whatever (plant) you see which is not medicinal, bring it to me'.

Givaka Komara-bhakka accepted this order of that physician (saying), 'Yes, doctor', took a spade, and went round about Thakksasila a yojana on every side, but he did not see anything that was not medicinal. Then Givaka Komara-bhakka went to the place where that physician was; having approached him he said to that physician; 'I have been seeking, doctor, all round Thakksasila a yojana on every side, but I have not seen anything that is not medicinal'.

(The physician replied), 'You have done your learning, my good Givaka; this will do for acquiring your livelihood'. Speaking thus, he gave to Givaka Komara-bhakka a little (money) for his journey (home). (pp. 174-176).

GIVAKA'S FIRST CASE

Givaka set out for Rajagriha. He realised that it was difficult to travel through wild tracks where there would be no food and water without money. He thought of earning some money for the journey.

"At that time the Setthi's wife at Saketa had been suffering for seven years from disease in the head; many very great and world-renowned physicians came, but they could not restore her to health; they received much gold, and went away.

And Givaka Komara-bhakka, when he had entered Saketa, asked the people: "Who is sick here, my good Sirs? Whom shall I cure?'

'That Setthi's wife, doctor, has been suffering from a disease in the head; go, doctor, and cure that Setthi's wife'.

Then Givaka Komara-bhakka went to the house of the householder, the Setthi; and when he had reached it, he gave orders to the door-keeper (saying) 'Go, my good door-keeper, and tell the Setthi's wife: "A physician has come in, Madam, who wants to see you".'

That door-keeper accepted this order of Givaka Komara-bhakka (saying), 'Yes, doctor', went to the place where the Setthi's wife was, and having approached her, he said to the Setthi's wife: 'A physician has come in, Madam, who wants to see you'.

'What sort of man is that physician, my good door-keeper?'

'He is a young man, Madam'.

'Nay, my good door-keeper, what can a young physician help me? Many very great and world-renowned physicians have come and have not been able to restore me to health; they have received much gold, and have gone away'.

Then Givaka Komara-bhakka went to the place where that Setthi's wife was; having approached her, and having carefully observed the change in the appearance of the Setthi's wife, he said to the Setthi's wife: 'We want one pasata of ghee, Madam'. Then the Setthi's wife ordered one pasata of ghee to be given to Givaka Komara-bhakka. And that Givaka Komara-bhakka boiled that pasata of ghee with various drugs, ordered the Setthi's wife to lie down on her back in the bed, and gave it her through her nose. And the butter given through the nose came out through the mouth. And the Setthi's wife spat it out into the spittoon.

And Givaka Komara-bhakka drove away the disease in the head which the Setthi's wife had for seven years, by once giving her medicine through the nose. Then the Setthi's wife, who had been restored to health, gave four thousand (kahapanas) to Givaka Komara-bhakka; her son (thinking), 'My mother stands there restored', gave him four thousand; her daughter-in-law (thinking), 'My mother-in-law stands there restored' gave him four thousand; the Setthi, the householder, (thinking), 'My wife stands there restored', gave him four thousand and a man-servant and a maid-servant and a coach with horses.

Then, Givaka, continued his journey and reached Rajagriha. He went to Prince Abhaya, requested him to accept all that he had received for his first case—as a payment for his bringing up. But Prince Abhaya asked him to keep all that and also have a dwelling in the residence of the royal prince. (pp. 176-179).

GIVAKA CURES KING BIMBISARA

At that time, the Magadha King Seniya Bimbisara suffered from a fistula; his garments were stained with blood. When the queens saw that, they ridiculed (the king, and said): 'His Majesty is having his courses. His Majesty will bring forth.' The king was annoyed at that. And the Magadha King Seniya Bimbisara said to the royal prince, Abhaya: 'I am suffering, my dear Abhaya, from such a disease that my garments are stained with blood; and the queens, when they see it, ridicule (me by saying), 'His Majesty is having his courses. His Majesty will bring forth'. "Pray, my dear Abhaya, find a physician for me, able to cure me."

'This excellent young physician of ours, Sire, Givaka, he will cure Your Majesty'.

'Then pray, my dear Abhaya, give orders to the physician Givaka and he shall cure me'.

Then the Royal Prince Abhaya gave orders to Givaka Komara-bhakka (saying), 'Go, my dear Givaka, and cure the King'.

Givaka Komara-bhakka accepted this order of the Royal Prince Abhaya (by saying), 'Yes, Your Highness, and took some medicament in his nail, and went to the place where the Magadha King Seniya Bimbisara was. Having approached him he said to the King Seniya Bimbisara: 'Let us see your disease, Your Majesty'. And Givaka Komara-bhakka healed the fistula of the Magadha King Seniya Bimbisara by one anointing.

Then the Magadha King Seniya Bimbisara, having been restored to health, ordered his five hundred wives to put on all their ornaments; then he ordered them to take their ornaments off and to make a heap of them, and he said to Givaka Komara-bhakka: 'All these ornaments, my dear Givaka, of my five hundred wives shall be thine.'

'Nay, Sire, may Your Majesty remember my office'.

'Very well, my dear Givaka, you can wait upon me and my seraglio and the fraternity of Bhikkhus with the Buddha at its head'.

Givaka Komara-bhakka accepted this order of the Magadha King Seniya Bimbisara (by saying), 'Yes, Your Majesty'. (pp. 179-181).

Thus, Givaka, became the Royal physician at the court of Magadha and also the Physician to Buddha and his disciples—a position, unique and unparalleled, in the annals of medicine. He was a cultural and religious ambassador between Buddha and Ajastasatru, successor of Bimbisara on the throne of Magadha.

ROYAL PHYSICIAN ORDERED TO CURE A LEADING MERCHANT

At that time, the Setthi at Ragagaha had been suffering for seven years from a disease in the head. Many very great and world renowned physicians came, and were not able to restore him to health; they received much gold and went away. And a prognostication had been made by the physicians to him, to wit: Some of the physicians said: 'The Setthi, the householder, will die on the fifth day'; other physicians said: (The Setthi, the householder), will die on the seventh day'.

Now (a certain Ragagaha merchant thought: 'The Setthi, this householder, does good service both to the king and to the merchants' guild. Now the physicians have made prognostication to him &c. as above). There is Givaka, the royal physician, an excellent young doctor. What if we were to ask the king for his physician Givaka to cure the Setthi, the householder?'

And the Ragagaha merchant went to the place where the Magadha King Seniya Bimbisara was; having approached him, he said to the Magadha King Seniya Bimbisara: 'The Setthi, Sire, that householder, does good service both to Your Majesty and to the merchants' guild. Now the physicians have made prognostication to him, &c. May it please Your Majesty to order the physician Givaka to cure the Setthi, the householder'.

Then the Magadha King Seniya Bimbisara gave orders to Givaka Komarabhakka saying 'Go, my dear Givaka, and cure the Setthi, the householder'.

Givaka Komarabhakka accepted this order of the Magadha King, Seniya Bimbisara by saying 'Yes, Your Majesty', went to the place where the Setthi, the householder, was, and having approached him, and having carefully observed the change in his appearance, he said to the Setthi, the householder: 'If I restore you to health, my good householder, what fee will you give me?'

'All that I possess shall be yours, doctor, and I will be your slave'.

'Well, my good householder, will you be able to lie down on one side for seven months?'

'I shall be able, doctor, to lie down on one side for seven months'.

'And will you be able, my good householder, to lie down on the other side for seven months?'

'I shall be able, doctor, to lie down on the other side for seven months'.

'And will you be able, my good householder, to lie down on your back for seven months?'

'I shall be able, doctor, to lie down on my back for seven months'.

'Then Givaka Komarabhakka ordered the Setthi, the householder, to lie down on his bed, tied him fast to his bed, cut through the skin of the head, drew apart the flesh on each side of the incision, pulled two worms out (of the wound), and showed them to the people (saying: 'See, Sirs, these two worms, a small one and a big one. The doctors who said, "On the fifth day the Setthi, the householder, will die", have seen this big worm, and how it would penetrate on the fifth day to the brain of the Setthi, the householder, and that when it had penetrated to the brain, the Setthi, the householder, would die. Those doctors have seen it quite rightly. And the doctors who said, "On the seventh day the Setthi, the householder, will die", have seen this small worm, and how it would penetrate on the seventh day to the brain of the Setthi, the householder, and that when it had penetrated to the brain, the Setthi, the householder, would die. Those doctors have seen it quite rightly'. Speaking thus he closed up the sides of the wound, stitched up the skin on the head, and anointed it with salve.

And when seven days had elapsed, the Setthi, the householder, said to Givaka Komarabhakka: 'I am not able, doctor, to lie down on one side for seven months'.

'Did you not tell me, my good householder: I shall be able, doctor, to lie down on one side for seven months'.

'It is true, doctor, I told you so indeed, but I shall die if I do: I cannot lie down on one side for seven months'.

'Well, my good householder, then you must lie down on the other side for seven months'.

And when seven days had elapsed, the Setthi, the householder said to Givaka Komarabhakka: 'I am not able, doctor, to lie down on the other side for seven months'.

'Did you not tell me, &c'.

'It is true, doctor, I told you so indeed, &c'.

'Well, my good householder, then you must lie down on your back for seven months'.

And when seven days had elapsed, the Setthi, the householder, said to Givaka Komarabhakka: 'I am not able, doctor, to lie down on my back for seven months'.

‘Did you not tell me,’ &c.

‘I told you so indeed, doctor, it is true, &c.’

‘If I had not spoken thus to you, my good householder, you would not have lain down even so long a time. But I knew beforehand, “After three times seven days the Setthi, the householder, will be restored to health”. Arise, my good householder, you are restored; look to it, what fee you give me’.

‘All that I possess will be yours, doctor, and I will be your slave’.

‘Nay, my good householder, do not give me all that you possess, and do not be my slave; give one hundred thousand (kahapanas) to the king, and one hundred thousand to me’.

Then the Setthi, the householder, having regained his health, gave a hundred thousand (kahapanas) to the king, and one hundred to Givaka Komarabhakka.

GIVAKA PERFORMS AN ABDOMINAL OPERATION

At that time, the son of the Setthi at Banares, who used to amuse himself my tumbling (mokkhakika), brought upon himself an entanglement of his intestines, in consequence of which he could digest neither the rice-milk which he drank, nor the food of which he partook, nor was he able to ease himself in the regular way. In consequence of that he grew lean, he looked disfigured and discoloured, his complexion became more and more yellow, and the veins stood out upon his skin.

Now the Setthi of Banares thought: ‘My son is suffering from such and such a disease: he neither can digest the rice-milk which he drinks (&c., as above, down to:) and the veins stand out upon his skin. What if I were to go to Ragagaha and to ask the king for his physician, Givaka, to cure my son’.

And the Setthi of Banares went to Ragagaha and repaired to the place where the Magadha King, Seniya Bimbisara was; having approached him he said to the Magadha King Seniya Bimbisara: ‘My son, Your Majesty, is suffering from such and such a disease: he neither can digest the rice-milk which he drinks (&c., as above, down to:) and the veins stand out upon his skin. May it please Your Majesty to order the physician Givaka to cure my son’.

Then the Magadha King Seniya Bimbisara gave orders to Givaka Komarabhakka (saying), ‘Go, my dear Givaka; go to Banares, and cure the Setthi’s son at Banares’.

Givaka Komarabhakka accepted this order of the Magadha King Seniya Bimbisara (by saying) ‘Yes, Your Majesty’, went to Banares, and repaired to the place where the son of the Banares Setthi was; having approached him, and having carefully observed the change in his appearance, he ordered the people to leave the room, drew the curtain, tied him fast to a pillar, placed his wife in front of him, cut through the skin of the belly, drew the twisted intestines out, and showed them to his wife (saying), ‘Look here what the disease was, from which your husband was suffering. This is the reason why he neither can digest the rice-milk which he drinks, nor can digest the food which he partakes, nor is able to ease himself in the regular way, and why he has grown lean, and looks disfigured and discoloured, and why his complexion has become more and more yellow, and the veins have stood out upon his skin’. Speaking thus, he disentangled the twisted intestines, put the intestines back (into their right position), stitched the skin together, and anointed it with salve. And before long the Banares Setthi’s son regained his health.

Then the Setthi of Banares (saying to himself), ‘My son stands here restored to health’, gave sixteen thousand (kahapanas) to Givaka Komarabhakka. And Givaka Komarabhakka took those sixteen thousand (kahapanas) and went back again to Ragagaha.

KING OF UJJAIN REQUESTS FOR SERVICES OF GIVAKA

‘At that time, King Pagota (of Uggeni) was suffering from Jaundice. Many very great and world-renowned physicians came and were not able to restore him to health; they received much gold and went away. Then King Pagota sent a messenger to the Magadha King Seniya Bimbisara (with the following message); ‘I am suffering from such and such a disease; pray, Your Majesty give orders to the Physician Givaka; he will cure me’. Then the Magadha King Seniya Bimbisara gave orders to Givaka Komarabhakka (saying), ‘Go, my dear Givaka; go to Uggeni, and cure King Pagota’.

Givaka Komarabhakka accepted this order of the Magadha King, Seniya Bimbisara (by saying), ‘Yes, Your Majesty’, went to Uggeni and to the place where King Pagota was, and having approached him, and having carefully observed the change in his appearance, he said to King Pagota:

‘I will boil up some ghee, Sire, which Your Majesty must drink’.

‘Nay, my good Givaka; do what you can for restoring me, without giving me ghee; I have an aversion and a distaste for ghee’.

Then Givaka Komarabhakka thought: ‘The disease of this King is such a one that it cannot be cured without ghee. What if I were to boil up ghee so that it takes the colour, the smell, and the taste of an astringer decoction’.

Then, Givaka Komarabhakka boiled some ghee with various drugs so as to give it the colour, the smell, and the taste of an astringent decoction. And Givaka Komarabhakka thought: 'When this King shall have taken the butter and digested it, it will make him vomit. This King is cruel; he might have me killed. What if I were to take leave beforehand'. And Givaka Komarabhakka went to the place where King Pagota was; having approached him he said to King Pagota:

'We physicians, Sire, draw out roots and gather medical drugs at such an hour as this. May it please Your Majesty to send the following order to the (royal) stables, and to the gates (of the town): "Let Givaka ride out on what animal he likes; Let him leave (the town) by what gate he likes; let him leave at what hour he likes; let him enter again at what hour he likes".'

And King Pagota sent the following order to the (royal) stables and to the gates (of the town): 'Let Givaka ride out on what animal he likes, &c.'

At that time King Pagota had a she-elephant, called Bhaddavatika, which could travel fifty yojanas (in one day). And Givaka Komarabhakka gave the ghee to King Pagota (saying), 'May Your Majesty drink this decoction'. Then, having made King Pagota drink the ghee, Givaka Komarabhakka went to the elephant stable, and hastened away from the town on the she-elephant Bhaddavatika.

And when King Pagota had drunk that ghee and was digesting it, it made him vomit. Then King Pagota said to his attendants: 'That wicked Givaka, my good sirs, has given me ghee to drink. Go, my good sirs, and seek the physician Givaka'.

The attendants answered, 'He has run away from the town on the she-elephant Bhaddavatika'.

And the slave Kaka overtook Givaka Komarabhakka on his way, at Kosambi, when he was taking his breakfast. And the slave Kaka said to Givaka Komarabhakka: 'The King orders you to return, doctor'.

(Givaka replied), 'Wait, my good Kaka, until we have taken our meal; here, my good Kaka, eat'.

(Kaka said), 'Nay, doctor, the King has told me, "Those physicians, my good Kaka, are cunning people; do not accept anything from him".'

At that time Givaka Komarabhakka, who had cut off some drug with his nail, was eating an emblic myrobalan fruit and drinking water. And Givaka Komarabhakka said to the slave Kaka: 'Here, my good Kaka, eat of this myrobalan fruit and take some water'.

Then the slave Kaka thought: 'This physician eats the myrobalan and drinks water; there cannot be any harm in it; ' so he ate half of the myrobalan and drank some water. And that half myrobalan which Givaka had given him to eat, opened his bowels on the spot.

Then the slave Kaka said to Givaka Komarabhakka 'Can my life be saved, doctor?'

(Givaka replied), 'Be not afraid, my friend, you will be quite well. But the King is cruel; that King might have me killed; therefore do I not return'.

Speaking thus he handed over to Kaka the she-elephant Bhaddavatika and set out for Ragagaha. Having reached Ragagaha in due course, he went to the place where the Magadha King Seniya Bimbisara was; having approached him he told the whole thing to the Magadha King Bimbisara.

Bimbisara said, 'You have done right, my good Givaka, that you have not returned; that King is cruel; he might have had you killed'.

And King Pagota, being restored to health, sent a messenger to Givaka Komarabhakka with this message, 'May Givaka come to me; I will grant him a boon'.

(Givaka replied), 'Nay, Sir, may His Majesty remember my office'.

At that time King Pagota had a suit of Siveyyaka cloth, which was the best, and most excellent, and the first, and the most precious, and the noblest of many clothes, and King Pagota sent this suit of Siveyyaka cloth to Givaka Komarabhakka. Then Givaka Komarabhakka thought, (this suit of Siveyyaka cloth which King Pagota has sent me, is the best and the most excellent (&c., down to:) and of many hundred thousand suits of cloth. Nobody else is worthy to receive it but He, the blessed, perfect Arahata-Buddha, or the Magadha King Seniya Bimbisara'.

GIVAKA AS MEDICAL ATTENDANT OF BUDDHA

At that time a disturbance had befallen the humors of the Blessed One's body. And the Blessed One said to the venerable Ananda: 'A disturbance, Ananda, has befallen the humors of the Tathagata's body; the Tathagata wishes to take a purgative'. Then the venerable Ananda went to the place where Givaka Komarabhakka was; having approached him he said to Givaka Komarabhakka:

'My good Givaka, a disturbance has befallen the humors of the Tathagata's body; the Tathagata wishes to take a purgative'.

Givaka replied, 'Well, venerable, Ananda, you ought to rub the Blessed One's body with fat for a few days'.

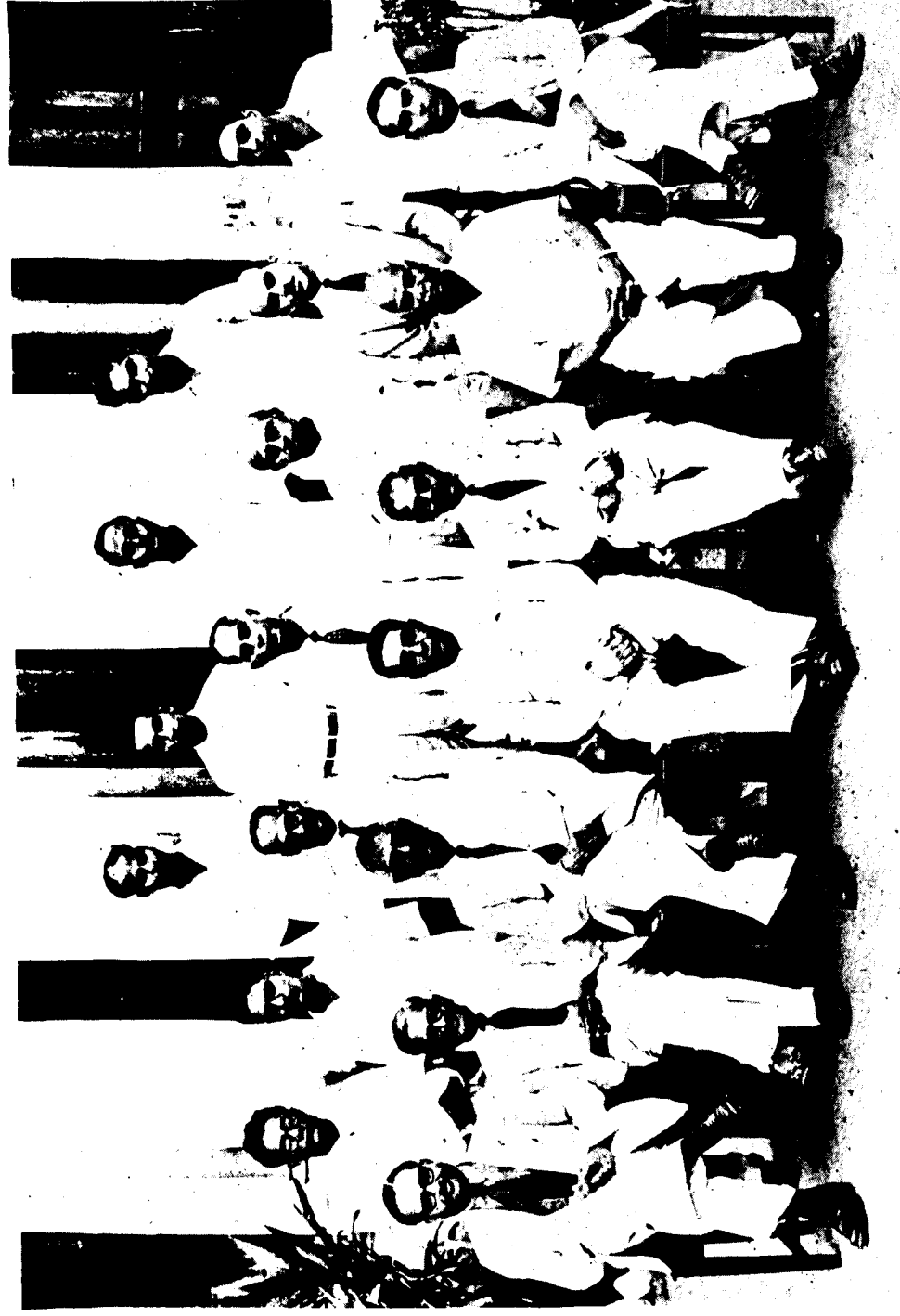
And the venerable Ananda, having rubbed the Blessed One's body with fat for some days, went to the place where Givaka Komarabhakka was; having approached him he said to Givaka Komarabhakka; 'I have rubbed, my good Givaka, the Tathagata's body with fat; do you now what you think fit'.

Then Givaka Komarabhakka thought: 'It is not becoming that I should give a strong purgative to the Blessed One'. Thinking thus, he imbued three handfuls of blue lotuses with various drugs and went therewith to the place where the Blessed One was; having approached him he offered one handful of lotuses to the Blessed One saying, 'Lord, may the Blessed One smell this first handful of lotuses; that will purge the Blessed One, ten times'. Thus he offered also the second handful of lotuses to the Blessed One saying, 'Lord, may the Blessed One smell this second handful of lotuses; that will purge the Blessed One, ten times'; Thus he offered also the third handful of lotuses to the Blessed One saying, 'Lord may the Blessed One smell this third handful of lotuses; that will purge the Blessed One, ten times. Thus the Blessed One will have purged full thirty times'. And Givaka Komarabhakka, having given to the Blessed One, a purgative for full thirty times, bowed down before the Blessed One and passed round him with his right side towards him, and went away.

And Givaka Komarabhakka, when he was out of doors, thought: 'I have given indeed to the Blessed One a purgative for full thirty times, but as the humors of the Tathagata's body are disturbed, it will not purge the Blessed One full thirty times, it will purge the Blessed One only twenty nine times. But the Blessed One, having purged, will take a bath; the bath will purge the Blessed One once; thus the Blessed One will be purged full thirty times'.

And Givaka Komarabhakka went to the place where the Blessed One was; having approached him and respectfully saluted the Blessed One, he sat down near him, sitting near him Givaka Komarabhakka said to the Blessed One: 'Lord, has the Blessed One purged?' (Buddha replied, 'I have purged, Givaka'. (Givaka said, 'When I was out of doors, Lord, I thought: "I have given indeed &c." may the Blessed One take a bath, may the Happy One take a bath'. Then the Blessed One bathed in that warm water, the bath purged the Blessed One once; thus the Blessed One was purged full thirty times.

And Givaka Komarabhakka said to the Blessed One: 'Lord, until the Blessed One's body is completely restored, you had better abstain from liquid food'. And ere long the Blessed One's body was completely restored.



Photograph taken on the occasion of the Annual Meeting of the Association on 29—4—1958
at Madras Medical College, Madras.

Association Notes and Medico-historical News

The annual meeting of the Indian Association of History of Medicine was held on 29—4—1958 at 6 p. m. in the Madras Medical College with Dr. P. Kutumbiah, M.D., M.R.C.P., our President in the chair. The annual report of the Association was presented by the Joint Secretary Dr. K. Bhasker Rao, M.D.

ANNUAL REPORT FOR 1957

The 10th Annual Meeting of the Association was held on 21--2—1957 at 5-30 p. m. when Dr. A. A. Ayyar presided. The following office bearers were elected for the year.

<i>President</i>	...	Dr. P. Kutumbiah, Vellore.
<i>Vice Presidents</i>	...	Dr. P. M. Mehta, Jamnagar. Lt. Col. Dutta, Chandigarh. Dr. C. G. Pandit, Delhi. Dr. A. A. Ayyar, Madras.
<i>Secretary</i>	...	Dr. D. V. Subba Reddy, Hyderabad.
<i>Joint Secretary</i>	...	Dr. K. Bhasker Rao, Madras.
<i>Treasurer</i>	...	Dr. B. M. Sundaravadanam, Madras.
<i>Committee Members</i>	...	(1) Dr. Bankatchandra, Hyderabad. (2) Dr. G. D. Apte, Poona. (3) Dr. M. N. Rao, Calcutta. (4) Dr. C. R. R. Pillay, Madras. (5) Dr. P. N. Rangiah, Madras. (6) Dr. B. Ramamurthi, Madras. (7) Dr. T. M. Nedungadi, Madras.

During the year under review, the Secretary was not available in the city to help us as he was transferred to Hyderabad as Professor of History of Medicine. Till a few months ago, the Joint Secretary was also away in Madurai and most of the work connected with the Association in the city fell to the lot of the Treasurer, Dr. B. M. Sundaravadanam, who shouldered this heavy responsibility well and ably looked after the affairs of the Association.

MEMBERS

The Association has on its rolls —

Life members	...	20
Ordinary members	...	71
Associate members	...	6
Total	...	97

In spite of the fact that the Association has been in existence for over 10 years now, it is regrettable that our total membership is still less than 100. The history of Medicine is an important subject in which every medical student and practitioner should take interest so as to understand the evolution of medicine and also to plan the future in medicine. A series of 8 to 10 lectures at the commencement of instructions in clinical medicine would help the student in appreciating the subject better and may also rouse his curiosity to learn more about medical history, apart from creating a rationalistic approach to the study of medicine. Our country with its rich heritage has got abundant material for research in this subject.

LECTURE MEETING

Dr. W. Penfield, the famous neurosurgeon from Canada, addressed the members of our Association on 21—2—57 on "Hippocrates and the Dawn of Medicine". Dr. M. R. Guruswamy Mudaliar, Consulting Physician, Government General Hospital, Madras presided over the function. The report on this meeting has been published in detail in our journal of June, 1957.

EXECUTIVE COMMITTEE MEETING

(i) One meeting was held on 14—3—1958 to consider the reallocation of the Association-work in the city consequent to the transfer of the Secretary to Hyderabad. It also discussed the different measures to expedite and regularise the publication of the journal.

(ii) Another meeting was held on 28—4—58 when it was decided to get the approval of the General Body meeting for the continuation of the existing office bearers for the year 1958 as the elections could not be held due to the circumstances explained earlier. It was also decided to constitute an Editorial Board to assist the Editor in the management of the Journal.

JOURNAL

Two years have passed since our journal was started. It has been ably looked after by its Editor, Dr. D. V. Subba Reddy. Its popularity abroad seems to be good because excluding our members, we have as many subscribers abroad as in India. This demand is encouraging. Our journal is being exchanged with 10 other journals on History of Medicine from 8 different countries. Unfortunately, owing to certain unavoidable circumstances, there was some delay in the publication of the last 2 numbers and we hope that henceforth with the help of our members and others interested in this subject we will be able to publish the journals regularly.

The Association has keenly felt the necessity for a permanent accommodation for its office—for keeping its files, books and journals (Library space) and also for the editorial work of the journal. I earnestly appeal to the members of the medical profession and others interested in medical history and culture to help us to fulfil this necessity.

ACCOUNTS

Following the reading of the Annual report the statement of accounts of the Association was presented by the Treasurer, Dr. B. M. Sundaravadanam, F.R.C.S.

RESOLUTIONS

The following resolutions were then briefly discussed and passed:—

1. This General Body meeting accepts the recommendation of the executive committee and permits the continuation of the present office bearers for one more year (1958) as the executive committee could not meet before October, 1957 for nomination of another committee and obtain the approval of all the members before December 1957.

2. The Association of History of Medicine conveys its sincere congratulations and felicitations to Dr. P. Kuttumbiah, the President, for his recent election to the Fellowship of the Royal College of Physicians, London.

3. This Association places on record its most sincere thanks to Dr. P. N. Raju, M.Sc. M.B.B.S., for becoming a benefactor to the Association, by giving a liberal donation of Rs. 500/-.

4. Resolved that an Editorial Committee consisting of the following be formed to assist the Editor in the editorial work and other matters relating to the journal: (i) Editor (ii) Publisher (iii) President (iv) Joint Secretary and (v) Treasurer.

5. Resolved that the President may write to the Director of Medical Services (or meet him) requesting accommodation for the Association and its library in Madras Medical College.

6. The Association feels that the time is come for a course of lectures on History of Medicine to be incorporated in the curriculum of Medical studies during the clinical course and requests the Madras University to take steps implement the same.

LECTURE BY HON. MR. JUSTICE RAJAMANNAR

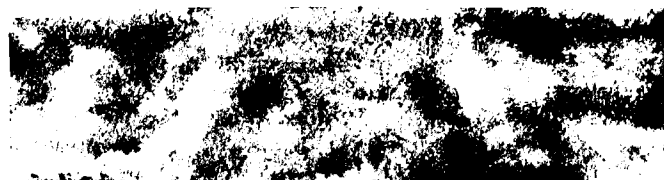
After the resolutions were discussed and voted the main speaker of the evening Hon. Mr. Justice P. V. Rajamannar, Chief Justice of the High Court, Madras was introduced to the gathering by the President. Dr. Rajamannar gave an illuminating lecture on Ancient Indian Medicine—Ayurveda, the Samhitas, Yogasutras and Asanas and their relation to health and disease (His address is printed in full elsewhere in this issue of the journal). Later, in his concluding remarks, the President expressed views on Ayurveda and other systems of ancient Indian Medicine, some of which differed from those put forward by the main speaker. Dr. Ananthanarayana Ayyar, proposing a vote of thanks, made a plea for a scientific outlook in studying these old medical texts and to study them with humility and an open mind as there is so much valuable to learn from ancient medicine. He thanked Dr. Rajamannar for his very learned lecture.

ANNOUNCEMENTS

It is proposed to hold a symposium on "Fungus Diseases in India" under the auspices of the School of Tropical Medicine, Calcutta in the third week of December, 1958. The symposium will be divided in the following sections :—

1. Internal medicine.
2. Paediatrics.
3. Gynaecology and Obstetrics.
4. Dermatology.
5. Surgery.
6. Medical mycology.

Papers are invited for the presentation at the symposium. An abstract of the paper (in duplicate) not exceeding 300 words, should be sent to the Director, School of Tropical Medicine, Calcutta, not later than September 15, 1958, and the full paper (in duplicate) should be sent by November 15, 1958. Dr. C. G. Pandit, Director, Indian Council of Medical Research, New Delhi, has kindly consented to preside over the symposium. Scientists from the U. S. A. and U. K. are expected to participate in the symposium. For any further information and details regarding the symposium, kindly write to the Director.



LIST OF JOURNALS EXCHANGED

1. Acta Historica Scientiarum Naturalium et Medicinalium—University of Copenhagen, Denmark.
2. Publications Del Siminario De Historia De la Medicina —University of Salamanca, Spain.
3. Polish Medical History and Science Bulletin—Polish Medical Alliance—Chicago.
4. Archiwum Historii Medycyny—Warsaw, Poland.
5. Archivos Medicos de Cuba—Havana, Cuba.
6. Koroth—A quarterly journal devoted the History of Medicine and Science, Tel-Aviv, Israel.
7. Revista de la Sociedad Medico-Quirurgica del Zulia—University National del Zulia, Venezuela, South America.
8. Revista de la Sociedad Venezolana de Historia de la Medicina, Venezuela, South America.
9. Pagina di Storia della Medicina, Institute of History of Medicine, University of Rome.
10. Archivo Iberoamericano de Historia de la Medicina and Anthropologia Medica—Arnold de Vilanova, Institute of History of Medicine, Madrid.

INDIAN JOURNAL OF THE HISTORY OF MEDICINE

AIM AND SCOPE:

The Journal will be devoted primarily to the promotion of the study and research in the History of Medicine, including philosophical, sociological, cultural and humanistic background, as well as the changing influences and new trends. It will endeavour to bring to the notice of the cultured public and the profession, various Archeological, Epigraphical evidences, traditional lore, extracts from ancient literature, religious or secular or scientific, list of manuscripts, records of documents, old books and works of art, useful for the study of history of Medicine in India. It will collect and publish clues and traces of the influence of ancient Indian Medicine on other lands and people of ancient and mediaeval times. It will attempt to critically examine the influence of European Renaissance and European Medicine on the advent and growth of modern medicine in India, with far-reaching repercussions on the Indigenous systems and on the health of India. It also aims to bring Medical Science into closer relation with Humanism.

TO THE CONTRIBUTORS:

Contributions, review copies of books, Journals in exchange, and correspondence relating to the publication of papers should be addressed to the Editor, D. V. Subba Reddy, Professor of History of Medicine, Osmania Medical College, Hyderabad (India). Manuscripts for publication should be typewritten in double space and should not exceed 10-12 pages of typescript (i.e. 2500-3000, words). References should be arranged alphabetically and typewritten in double space. Each reference should contain name(s) and initial(s) of author(s) and full title of the paper. Journal articles should also include name of journal, year, volume number and complete pagination in that order; with books, the city of origin, publisher, date and full pagination should be given.

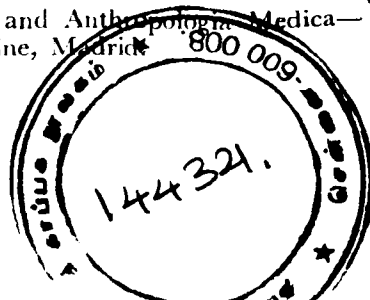
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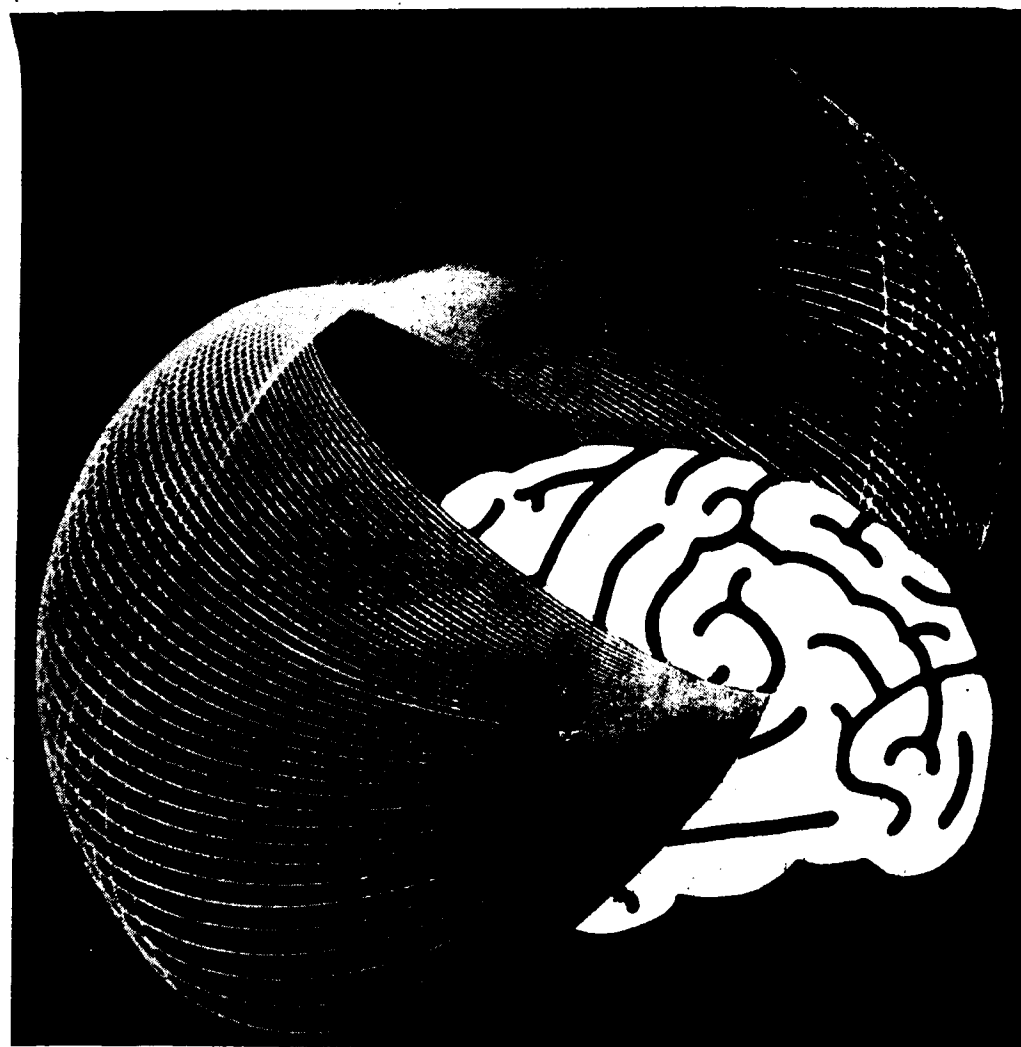
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