

THE STATE OF ĀYURVEDA IN THE EIGHTEENTH & NINETEENTH CENTURIES

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INTRODUCTION

Āyurveda flourished well under the patronage of the Hindu rulers up to the advent of the Mohammedans in the 11th century. Then there was a succession of foreign rulers belonging to one dynasty or other until the advent of the British rule. During the Mohammedan rule royal patronage was extended to the Unani system of medicine. There were many physicians belonging to this system and many treatises were written by eminent men of those days relating to this system¹. There also appeared Persian translations and adaptations of standard treatises on Āyurveda. After the death of Aurangzeb in 1707 A.D., the Mughal empire dwindled in size. Then the British were able to establish themselves firmly after overcoming the rival western forces. The British rulers showed no interest in the preservation and propagation of the indigenous systems of medicine either Unani or Āyurveda. Hence both these systems had suffered some set back.

In spite of this, Āyurveda continued to be popular with the natives and treatises were being written. A fillip to these compositions was of course due to the patronage extended by the surviving Hindu stately kingdoms. That is why probably we find that even today Kerala, Gujarat and West Bengal have got flourishing Āyurvedic Institutions. In the following pages we shall first make a survey of the medical works written during this period, assess the impact of the western thought and then notice the contribution of Western Indologists in the recognition of this system.

WORKS BELONGING TO THE EIGHTEENTH CENTURY

Under the patronage of Ānandarāya-makhin, minister of King Sāhaji (1684-1710) and Serfoji (1710-1728) of Tanjore, Vedakavi composed an allegorical play in Sanskrit in 7 acts called *Jivānandanam*² cleverly combining the *Advaita vedānta* and the fundamentals of Āyurvedic science³. It deals with the ultimate bliss of the soul which results from the duel between the two rival forces, viz. diseases on one hand and the human body on the other. The metaphor of the king and his enemies has been brought in here. Finally Lord Śiva manifests to the king and imparts the wisdom of *yoga*, the true knowledge of the essence of God and the self.

Raghunāthapaṇḍita, a resident of Champāvati, modern Choul in Kolaba district of Bombay, composed his *Vaidya-vilāsa* and *Cikitsāmañjarī*⁴ in the beginning of the 18th century. These two works are handy guides to physicians.

We have then the work of Mādhava Upādhyāya composed about the same period. Although he hailed from Saurashtra he spent a greater part of his life at Kāśi. He was an exponent of alchemy (*rasaśāstra*). His *Āyurvedaprakāśa* deals with all the *rasa-saṃskāras* such as purification, incineration and use of all minerals and metals. He also asserts about the efficacy of the methods suggested as they have been personally tried.

Then we have the *Rājavallabha*, a lexicon in 6 chapters composed about the same period, describing good habits, properties of articles of food and drink, etc. This is more a hand book on personal hygiene than a *materia medica*.

Keladi Basavarāja composed his *Śivatattvaratnākara*⁵, an elaborate encyclopaedic work in 1709 A.D. It is divided into 9 *kallolas*, each *kallola* being sub-divided into 108 *tarāṅgas*. The section of Āyurveda in this work deals with the eight *aṅgas*; four kinds of treatment; qualities of a physician; the *doṣas* in the body; the time taken for digesting various kinds of foods; six kinds of tastes; their nature and effects, diagnosis, parts of the body and the things to be examined; various kinds of pulse-beats; how pulse works in different diseases; pulse-beats in various living beings; the cause of windiness; the cause of biliousness; kinds of fever and their effects; the things which reduce wind, bile and phlegm; treatment and drugs which produce various effects in the body; seasons suitable for using various kinds of medicines; weights, measures and doses; the qualities of food stuffs and herbs and the preparations of medicine; how to test whether the preparations are satisfactory or not; doses and the duration of potency of various classes of medicines; mercury (*rasa*) and treatment by mercurial preparations; mica, pyrites (*makṣika*), cowrie (*varāṭi*), blue vitriol, lapis-lazuli, realgar, red chalk (*gairika*), yellow-orpiment, red lead, arsenic, antimony and mercury; their place of origin, nature, qualities, colour, uses etc.; purification of mercury (*rasa*); its uses and effects when combined with other things; various methods of conversion of base metals into silver and gold; chemical laboratory and the proper arrangement of articles in it; serpents, their varieties and nature, life-period and changes at different stages; how to determine the kind of serpent which has bitten a person; the place affected by biting; the question of survival of the person bitten; poisonous bites by rats and spiders, and treatment by drugs.

We now enter into a period where the contact of foreigners from Europe has been great. Even during the period of the Āyurveda writer Bhāvamiśra, i.e. in the 16th century, foreigners, mainly the Portuguese had come to India. Along with them came the syphilis, which was then referred to as *phiraṅgiroga* because it was unknown to early writers on Āyurveda. Although Bhāvamiśra had referred to it in his *Bhāvaprakāśa* and has mentioned *Tob-chini* (China root) as its remedy, only the anonymous

Yogarātnākara composed prior to 1746 A.D. has more references to the name and use of *Copa-cīnī*—such as *Copa-cīnīprakāśa*, *Copacīnī-cūrṇa* etc. under treatment for *upadamśa*. But the *phiraṅgaroganidāna* of *Bhāvaprakāśa* does not find a place here.

This interesting work refers to many more foreign materials such as *Birijā* and *Kabāb* which are Unani terms⁶. This is the first Āyurvedic treatise which refers to tobacco and its uses, although tobacco had been introduced in India in the 15th-16th centuries. Tobacco leaves were kept folded under the aching tooth for relief from pain.

Although references were found in these earlier works to *Copacīnī*, only in the 19th century, the *Copacīnīprakāśa* was compiled under the patronage of the famous Ranjit Singh⁷ (1780-1839). The New Catalogus Catalogorum records⁸ the availability of 2 manuscripts of this work. Perhaps the *Cocanīprakāśa*⁹ ascribed to Madhusūdana Śarman Gosvāmin available in Alwar Library is same as this work. There is another work on this subject, namely, the *Covacīnīsevanavidhi*.¹⁰

Mir Jafar, the Nawab of Bengal (1757-1762) had a personal physician by name Rāmasena Kavīndramaṇi. He composed commentaries on the *Rasendrasārasaṅgraha* of Gopālakṛṣṇa¹¹ and the *Rasendracintāmaṇi* of Rāmacandra Guha.

The following works on medicine were composed during the 18th century. Govindadāsa's *Bhaiṣajyaratnāvalī*¹² gives a collection of recipes. Herein we find references to new diseases like *vṛkkaroga* (kidney diseases), and *mastiṣkaroga* (brain diseases). This has a Sanskrit commentary by Narendranatha Misra of Lahore. *Rājavallabhīyadravyagūṇa*¹³ of Nārāyaṇadāsa was composed in 1760 A.D. *Prayogāmṛta*, the most extensive work on therapy was composed by his pupil Vaidyacintāmaṇi. Dhanapati's *Divyarasendrasāra* and Nārāyaṇa's *Vaidyāmṛta* also belonged to this period.¹⁴

WORKS BELONGING TO THE NINETEENTH CENTURY

The first half of the 19th century is quite important in the history of Indian medicine. The Mahratta king of Tanjore, Raja Serfoji (1798-1832), had deep interest in Indian Medicine. Equipping himself with a full knowledge of the western medicine and the native Āyurveda, he tested all indigenous recipes by actual administration to patients in a hospital where both English and Indian doctors worked in harmony. He selected some four thousand prescriptions as the most efficacious ones and had them written in Tamil verse form, classified into 18 volumes according to the diseases they relate to. These volumes appeared under the general title *Sarabhendra Vaidya murai*¹⁵. In one of the volumes relating to skin diseases, we find the method of treating cancer successfully.

About 25 titles of works composed in the 18th and 19th centuries are known from the historical books on Āyurveda¹⁶. A few works which have some special theme

in them may be mentioned. *Pāradakalpadruma* dealing with the use of mercury was composed by Ananta in the year 1792 A.D. *Vaidyakaśārasaṃgraha* was composed in 1734 A.D. by Śrikanṭha Śambhu. The *Vaidyavinoda*¹⁷ of Śaṅkarabhaṭṭa was composed in 1705 A.D. under the patronage of King Ramsingh of Jaipur. Godbole's *Nighaṇṭuratnākara*¹⁸ and Sridattaram Chaube's *Bṛhannighṇṭuratnākara* mention pine-apple, tobacco and the examination of urine, while the latter has also given equivalents of the names of medicines in other Indian languages and English.¹⁹

SOME GREAT EXPONENTS OF ĀYURVEDA IN THE 19TH CENTURY

Some of the exponents of Āyurveda born in the 19th century made great name and established flourishing institutions of Āyurveda in the early part of the 20th century.

Kaviraj Ganga Prasad Sen²⁰, a great physician of Bengal was the editor of the magazine '*Āyurveda Sañjibani*' in Bengali. He had distinguished men as his patients. He manufactured medicines and exported them. He was the upholder of the dignity of the Kavirājas. He was honoured by Queen Victoria in 1877 with a Service Medal. Mahāmahopādhyāya Bejojratha Sen was his disciple. He revised and edited *Aṣṭāṅghaṛḍaya* of Vāgbhaṭa. Kaviraj Hari Mohan Dasgupta and Kaviraj Kalish Chandra Sen were also his disciples. Kaviraj Amritlal Gupta, author of *Āyurvedaśikṣā* was the nephew and disciple of Kaviraj Kalish Chandra Sen. Mahamahopadhyaya Kaviraj Gananath Sen, M.A., L.M.S. Saraswati was the son and disciple of Biswanath Kalpadruma of Benares. Kaviraj Gananath Sen compiled *Pratyakṣaśārira*, *Siddhāntanidāna* and *Āyurveda paricaya* (in Bengali). He established the Kalpataru Āyurvedic works—a manufacturing concern. Kaviraj Jyotish Chandra Saraswati of Bengal wrote a commentary on *Suśrutasaṃhitā* which is now lost. Kaviraj Gananath Sen was the founder of "Viswanath Ayurveda Mahavidyalaya of Calcutta". Kaviraj Jamini Bhusan Roy, M.A., M.B. was the founder of the 'Aṣṭāṅga Āyurveda Vidyālaya' of Calcutta.

Kaviraj Gangadhar Roy²¹ (1798-1865 A.D.) often called as Gangadhar Kaviraj was the son of Bhavani Prasad Roy of Bengal. He was a great scholar, physician and unique teacher of Āyurveda who dedicated himself to the resuscitation of Āyurveda. He is a prolific writer. Among his forty works, about a dozen works were on Āyurveda, among which the following may be mentioned as important. He commented on the medical chapters of the *Agnipurāṇa* and on the *Carakasamhitā*. He also composed the *Pathyāpathya*²², *Bhāskarodaya*²³ on pathology and *Vaidyatattvavinīścaya*.²⁴

He had a brilliant galaxy of direct disciples (who had spread the science of Āyurvedic treatment throughout India) of whom the following may be mentioned together with others.

His senior-most direct disciple was Kaviraj Gayanath Sen of Purulia village in

the Birbhum district of Bengal. He was a great scholar and successful physician. His son Kaviraj Sitanath Sen was also a great physician of Āyurveda. Mahāmahopādhyāya Dwarakanath Sen was another great direct disciple of Kaviraj Gangadhar Roy and a famous Āyurvedic physician. Kaviraj Jogindranath Sen, M.A., son of Dwarakanath Sen was a great scholar. He wrote a commentary on the *Carakasamhitā* called *Carakopaskāra*. He was honoured with the title 'Baidyaratna' by the then Government for his scholarship. Kaviraj Parash Nath Sen of Banaras was another direct disciple of Kaviraj Gangadhar Roy. Kaviraj Rajendranath Sen of Calcutta, Kaviraj Jadunath Bhattacharya of Pubna, Kaviraj Gobinda Chandra Roy of Murshidabad and Kaviraj Sricharan Sen are all direct disciples of Kaviraj Gangadhar Roy. Kaviraj Haran Chandra Chakravorti, another disciple of Gangadhar Roy, was a great scholar, physician and surgeon of Āyurveda. He wrote a commentary *Suśrutārthasandīpan* on *Suśrutasaṃhitā*.

Haran Chandra Chakravorti, a student of the preceding scholar belonged to late 19th and early 20th century. He performed different types of operations as per Suśruta. His commentary on Suśruta, although the latest, was acclaimed on account of its practical approach.

Zandu Vittalji Bhat, born at Kathiawad in 1831, served as a physician to Jamsaheb of Navnagar. He started his *rasaśālā* at Jamnagar in 1865 which was later shifted to Baroda. This is now famous as the Zandu Pharmaceuticals.

H. H. Bhagvat Sinhji, the Maharaja of Gondal, born in 1865, studied medicine at Edinburgh University. He had a great ambition to expound the medical heritage of India to the minds of eastern and western scholars. His doctoral thesis, "A short History of Aryan Medical Sciences" secured him Fellowship of the Royal College of Physicians, Edinburgh. This is a very good reference book.

We may make a passing reference to Umeshchandra Datta, the Chief Librarian of the Government Sanskrit College, Calcutta, who compiled the first Āyurvedic Dictionary—*Vaidyaśabdasindhu* under the inspiration of the then Vice-Chancellor of the Calcutta University.

Shankardaji Shastry Pade, born in 1867 in a village near Poona, a scholar in Sanskrit and Āyurveda published āyurvedic magazines. He was able to persuade the Maharaja of Baroda to start an Āyurvedic College.

P. S. Warriar of Kerala, born in 1869, learnt Āyurveda and gained a working knowledge of the western medicine. He founded the Āryavaiśālā at Kottakkal in 1902. He wrote many works relating to Āyurveda.

Jeevaram Kalidas Shastry of Gujarat, was proficient in Āyurveda, especially in *rasaśāstra*, *mantravidyā*, *yoga* etc. He lived at Bombay for some time and finally

established himself as an āyurvedic physician at Gondal. He became the royal physician of the King of Gondal. He founded the *Rasaśālā auśadhālaya* in 1910. He had a good collection of manuscripts of texts on Āyurveda. He translated many Sanskrit works in Āyurveda into Gujarathi.

H. H. Kerala Varma (1864-1944), the Elayarāja of Cochin was well-versed in Āyurveda. He translated two works on Toxicology into Malayalam. He compiled the *Viśacikitsā* on the basis of Caraka, Suśruta and Vāgbhaṭa.

The later part of the 19th century witnessed the effects of Indian writers to absorb material from the western medical theories and to translate the Sanskrit medical works into the regional languages. An early example for the former is the attempt of Dr. Bhaskar Govind Ghanekar in his *Suśrutasaṃhitā*.²⁵ to cite one example: He has used *svaṃṣalavaṇa* in the place of gold chloride.

Like the *Hindu Chemistry* of Acharya Prafullachandra Roy, Sir B. N. Seal compiled *Positive Sciences of the Ancient Hindus* containing themes, matters, chemistry etc. of Āyurveda. All those referred to above were born in the 19th century but shed lustre to both 19th and 20th centuries except Kaviraj Gangadhar Roy.

WESTERN STUDIES ON ĀYURVEDA

We may now make a brief survey of the contributions of the western indologists and physicians to the cause of Indian medicine.²⁶

It was Sir William Jones who wrote the first article “*On the cure of elephantiasis and other disorders of the blood*”, being a translation from the Sanskrit original in 1785 and “*The design of a treatise on the plants of India*” in 1789. Richard Miller wrote his “*Disquisitions in the History of Medicine*” devoting a section to the conditions of healing in Hindustan in 1811.

In 1823, H. H. Wilson wrote an article entitled “*On the Medical and Surgical Sciences of the Hindus*”.

Martin Honigberger, born in Transylvania in 1795, was a court physician of Ranjit Singh in 1829. In his autobiography “*Thirtyfive years in the East*” published from London in 1852, we find that he has compiled a dictionary of medicinal plants, which he described in detail, giving their names in various languages. Similarly, a German physician, Johannes Gerhard Konig (1728-85) from Kurtland in Baltic combined medical and botanical research.²⁷

With the German physicians living and working in India during the 19th century interested in Indian medicine, it received a powerful stimulus. One of the first to study healing practices in India in general and their homoeopathic aspect in particular,

was Rudolf Roth (1821-95). He paid his attention to *Madanavinoda*, a work dealing with the flora, fauna and medicinal remedies and to the earlier collection, *Carakasamhitā*, of which he published a selection.²⁹ Similar to Miller's work is the *History of Medicine, Surgery and Anatomy* of William Hamilton published in 1831.

After Roth, Ernst Haas²⁹ (1835-82) made a study of the secrets of Indian medicinal treasures. In 1837, J. F. Royle wrote an article "*The Antiquity and Independent Origin of Hindu Medicine.*"

Renouard gave a brief account about the theory and practice in his "*Medicine of the Oriental Indians*" in 1836, translated by C. G. Cornegys in 1856. Then followed a comprehensive treatise called "*A Commentary on the Hindu System of Medicine*" by T. A. Wise in 1845. Robley Dunglison wrote his "*History of medicine from the earliest ages to the commencement of the 19th century*" in 1872. Hermann Bass wrote his "*Outlines of the History of Medicine and the Medical Profession*". It was translated by H. E. Handerson in 1889. This book makes an analysis of the Indian medical thought and praises the standard of perfection achieved by this system.³⁰ Edward Berdosc wrote on the "*Origin and Growth of the Healing Art*" in 1893. It was followed by Edward Theodore Withingdon's "*A Popular History of the Healing Art*" in 1894.

Discovery of much importance

The 19th century was important in one respect that search for manuscripts of Sanskrit texts were made and catalogues of collections of manuscripts in the possession of institutions and private individuals were prepared. One of the benefits of this continuous search was the discovery in the year 1890, of the *Nāvanītaka* (forming a part of the manuscripts discovered by Bower) in a Buddhistic *Stūpa* in Kashgar (China) which gives valuable information about the early existence of Indian medicine. It is supposed to be the cream of all other earlier texts. The date of this is fixed in the 4th century.³¹

The practical aspect

We have an interesting account³² of the Banian Hospital at Surat instituted to take care of injured and old animals that existed in the second half of the 18th century.

Plastic Surgery

Suśruta's technique of making the new nose was being practised in India till lately. Description of this operation was published in the *Gentleman's Magazine* in 1794 (Brown, J. B. and McDowell, F. (1965), (*Plastic Surgery of the Nose*. Charles, C. Thomas, U.S.A., p. 5), and after that a leading surgeon of London, Joseph Constantine Carpue published his results in 1816, which led to the world-wide publicity for the technique. Later on, many modifications of the technique were adopted and a new science of plastic surgery took birth.³³

From another source³⁴ we learn that the Indian medical men seem to have made

considerable use of surgical techniques in different parts of India. According to Colonel Kyd "in Chinigery (in which they are considered by us the least advanced) they often succeed, in removing ulcers and cutaneous irruptions of the worst kind, which have baffled the skill of our surgeons, by the process of inducing inflammation and by means directly opposite to ours, and which they have probably long been in possession of".

This is corroborated by the letters³⁵ of Dr. Helenus Scott written to Sir Joseph Banks, President of Royal Society, London on January 19, 1792 on the prevalence of plastic surgery in Western India: "They practice with great success the operation of depressing the chrystalline lens when become 'opaque' and from time immemorial they have cut for the stone at the same place which they now do in Europe."

Inoculation

From some accounts³⁶ we find that "Inoculation against the small pox seems to have been universal, if not throughout, in large parts of Northern and Southern India, till it was banned in Calcutta and other places under the Bengal Presidency (and perhaps elsewhere) from around 1802-03. The most detailed account of the practice of inoculation against the small pox in India is by J. Z. Holwell written by him (in 1767 A.D.) for the College of Physicians in London.

Earlier Ro. Coult wrote to Dr. Oliver Coult in '*An account of the diseases of Bengal*' (dated February 10, 1731) about the operation of inoculation of the smallpox as performed in Bengal.³⁷ It was called '*Tikhā*' by the natives. The method is as follows:

"They take a little of the pus (from the mature pox) and dip in it the point of a pretty large sharp needle. Several punctures are made with this in the hollow under the deltoid (delloid?) muscle or sometimes in the forehead. They are then covered with a little paste made of boiled rice. This commonly features and comes to a small supporation and if not the operation has no effect and the person is still liable to have the small pox. But if the punctures supporate and no fever or eruption ensues then they are no longer subject to the injection."³⁸

TEACHING OF ĀYURVEDA

Although teaching and practice of Āyurveda continued to be encouraged by the native rulers and individuals proficient in the theory imparted to the younger generations it was only in the year 1827 that regular arrangements were made to teach Āyurveda at Sanskrit College at Calcutta by the British rulers.

CONCLUSION

The above account which is only representative but not exhaustive shows that the ancient system of Āyurveda was somehow struggling for survival inspite of the cultural,

economic and social impact of alien cultures. The main reason for its survival is of course the dormant under-current of the culture and civilization of the Indian people.

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- ¹Jaggi O. P., *Medicine in Medieval India*, pp. 209-22.
²Ptd. *Kāvyaṃālā* 27.1891, 1933 (2nd edn.); *Adyar Library series* 59, 1947.
³A detailed account may be had from O. P. Jaggi, *Scientists of Ancient India*, pp. 115-20.
⁴On this and the following three works see K. R. Srikanthamurthy, *Luminaries of Indian Medicine*, pp. 82-83.
⁵See O. P. Jaggi, *Indian System of Medicine* p. 43; Dikshit, *IJHS* 4.1 & 2. p. 11 (1970) *IJHM*. 5.2.37.
⁶O. P. Jaggi, *Indian System of Medicine*, p. 44; Atridev Vidyalankar, *Āyurved kā brhat itihās*, pp. 310-13.
⁷Jolly, *Indian Medicine*, pp. 1-2, 3.
⁸Vol. VII. p. 86b.
⁹See *New Catalogus Catalogorum*, Vol. VII, p. 85b.
¹⁰See *ibid.*, p. 86b.
¹¹Ptd. Calcutta, 1915. See *New Catalogus Catalogorum*, Vol. VI. p. 135b. See also P. C. Ray, *History of Hindu Chemistry* Vol. II. pp. lxxi-lxxii.
¹²Ptd. Calcutta, 1893; in Malayalam script, Trivandrum, 1935. See K. R. Srikanthamurthy, *loc. cit.*, p. 83.
¹³Ptd. Calcutta, 1868.
¹⁴On these works see Atridev Vidyalankar, *Āyurveda kā brhat itihās*, p. 322.
¹⁵Published by the Tanjore Sarasvati Mahal Library, *Tanjore since 1952*. It may be pointed out that the efficacy of the recipes were reported by the doctors who had access to these volumes after their publication.
¹⁶See Atridev Vidyalankar, *loc. cit.*, pp. 596-98.
¹⁷Ptd. Bombay, 1913.
¹⁸Ptd. Bombay.
¹⁹See Atridev Vidyalankar, *loc. cit.*, pp. 602-03.
²⁰On this and the succeeding writers see K. R. Srikanthamurthy, *loc. cit.*, pp. 84 ff.
²¹See *New Catalogus Catalogorum*, Vol. V. p. 202 a-b.
²²Ptd. Berhampore, 1869.
²³Ptd. Calcutta, 1909.
²⁴Ptd. See 10, Ptd. Bks., 1938, p. 862.
²⁵See Atridev Vidyalankar, *loc. cit.*, p. 600.

²⁶ For a brief epitome of these works see D. V. Subba Reddy, *Western epitomes of Indian medicine*, Hyderabad, 1966 and O. P. Jaggi, *Indian System of Medicine*, p. 232.

²⁷ See Walter Leifer, *India and the Germans*, pp. 182-83.

²⁸ On this writer see Walter Leifer, *ibid.*, pp. 185 ff.

²⁹ See *ibid.*

³⁰ See also O. P. Jaggi, *Indian System of Medicine*, p. 232.

³¹ See Jolly, *Indian Medicine* (English translation), p. 22.

³² Forbes, *Oriental Memoirs*, Vol. I, pp. 156-57.

³³ O. P. Jaggi, *Indian System of Medicine*, p. 175.

³⁴ See Dharampal, *Indian Science and Technology in the Eighteenth century*, Intro. p. XLIII.

³⁵ See Dharampal, *loc. cit.*, p. 268.

³⁶ *ibid.* intro. p. XLIV.

³⁷ *ibid.* p. 141.

³⁸ It is observed that this is found even today practised by the *Mālis* in Bihar. See Vaidya Bhagwan Dash, *Fundamentals of Āyurvedic Medicine*, intro. p. xi.