

Historical Notes

Some Thoughts on Hindu Medicine — An Address by Kavirāj Mahāmahopadhyāya Gananath Sen*

N C Shah**

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Abstract

Kaviraj Gananath Sen earned great reputation for his publication of *Pratyakṣa Śarīra, Siddhānta-Nidāna, Ayurveda Parīcaya* and as a founder of Viswanath Ayurveda Mahavidyalaya which later renamed as Gananath Sen Institute of Ayurveda and Research in Calcutta. His address at BHU deals with the advances made in Ayurveda about hundred years ago, the knowledge of treating plants under *Vṛkṣa-Āyurveda*, the form of Materia medica and Pharmacy and the chemistry of *Makaradhvaja* used as stimulant and vitalizer. The Ayurvedists knew that there are certain diseases and ailments caused by ‘microorganisms’ and the knowledge of midwifery, and of compounds, which cured sexual debility under the name of *Vaiṣṇavī śakti*. The progress made in surgery and the instruments used were also taken into account. Finally, it dealt with the charges against the status of Ayurveda in the country about hundred years ago and action to be taken for its reform as a word of appeal to the people.

Key words: Adoption of foreign drugs, Bower manuscript, Caraka, Materia medica, Pharmacy, Sexual debility, Status of surgery, Surgery, Suśurta, Vāgbhaṭa, *Vaiṣṇavī śakti*, *Vāyu-kapha-pitta*, *Vṛkṣa - Āyurveda*, William Harvey.

1. INTRODUCTION

The history of any nation is known from the history of their rulers or kings or monarchs similarly, the history of medicine of any nation is known from the physicians of that period. An address on “Hindu Medicine” was delivered by Mahāmahopadhyāya Gananath Sen, Vidyanidhi, Saraswati, MA, LMS on 7th February, 1916 in conjunction with the foundation ceremony of Benaras Hindu University, Varanasi. There were present about scores of prominent *mahārājās* and *rājās* of then Indian States, who had had generously contributed for building of Hindu University to Shri Madan Mohan Malviya. In this

function not only the *mahārājās* and *rājās* were present but the viceroy of India Lord Hardinge was also present. The ceremony was presided by His Highness the *Mahārājā* of Jhalawar (Rajasthan). [Photographs of these personalities may be seen at the Appendix.]

2. THE ADDRESS

“Your highnesses, ladies and gentlemen, in this glorious effulgence of the dawn of the Hindu University, I have the honour and privilege addressing you on “Hindu Medicine”. It is a subject in which every true Hindu of Hindusthan and every sincere seeker of India’s welfare must

* The present communication is solely an address presented by Kavirāj Mahāmahopadhyāya Gananath Sen, an eminent Ayurvedic scholar of the past on the occasion of the foundation day of Benaras Hindu University, Varanasi on 7th February, 1916. Only a few copies of the Address were distributed during the inauguration. This address is of historical, scientific and of academic interest, therefore, it is being re-published after 100 years for the benefit of the ardent students and followers of science and Ayurveda.

**Founder ex-Director Harbal Research & Development Institute, Government of UP, Gopeshwar (now in Uttarakhand) and Head of Department Botany & Pharmacognosy, CIMAP (CSIR), Lucknow. Postal address: MS-78, Sector D, Aliganj, Lucknow - 226024, E.mail: shahncdr@gmail.com

feel strongly interested. Considering the many and varied problems of the regeneration of this great branch of life-saving study that must be faced boldly, I felt no small diffidence in my powers to do justice to the task in all its bearings on an occasion like the present one.

Nevertheless, I thought it my duty to respond to this trumpet-call of Pandit Madan Mohan Malaviyaji unflinchingly, lest I should be deemed and ungrateful servant by those who had the goodness to employ me in the past to offices of trust in connection with the All-India Ayurvedic Conference and its offspring-the All-India Board of Ayurvedic Education.

So, earnestly craving your indulgence, I am here to appeal to your justice to give Ayurveda its share of consideration in the great work of Renaissance set upon you by a kind Providence and a benign Government. I thank you heartily for giving me this opportunity”

The Goal in View: “To us-Indians, Ancient India is an expression fraught with a world of suggestions. The ring of sweet music associated with those words brings before our mind’s eye innumerable good things of old, the existence of which cannot be doubted. Looking through the dim vistas of the great past, so far as extant literature enlighten us, we find an endless mass of ruins-glowing truths and debris of truths the roofless pillars of that great superstructure, which once shone high in the horizon and dazzled the admiring eyes of the world by its lustrous glory. With such a conviction as this, I believe the Hindu University has been started. And the realization of the great ideal, we all hope and trust, is not far distant as we have taken the vow not merely to lament the by-gones but diligently to dig up the diamond-fields which were there and are yet there though covered with ruins. We mean to employ the lever of our western education to turn over those ruins. We shall not cease in our efforts till we get back our treasures and leave them to posterity re-polished and replenished for the benefit of the whole world.”

The Claims & Ideals of Hindu Medicine:

“Fortunately for the populace of India, Hindu Medicine (or Ayurveda as it is technically called) has lived a useful and life-giving life even under the weight of ruins. It still fights its humane battles for millions of suffering humanity in this land of its birth. It not only saves many times more people of India than all other systems of Medicine combined, but often conquers by striking cures many foreign rivals who, by the way, are only its own alienated offspring’s. It has lived yet, and outlived crushing influences in the past. Provided its claims are fully recognized by the State and people, it will live a good deal more in the present sunshiny days of peace and prosperity. This, I believe, is not a very bold prophecy to make.”

“Save Humanity” – has ever been the watch-word of Hindu Medicine – “Save Humanity regardless of earthly gain.” The great Caraka enjoined –

“नात्मार्यं नापि कामार्थमन्य भूतदयां प्रति ।
वर्तते यश्चिकित्सायां स सर्वमति वर्तते ॥
कुर्वते पे तु वत्त्यर्थं चिकित्साय राय विक्रयम् ।
ते हित्वा कान्चनं राशिं पांशुर शिभुपासते ॥”

“Not for self, not for the fulfillment of any earthly desire of gain, but solely for the good of suffering humanity, should you treat your patients and so excel all. Those who sell the treatment of diseases as merchandise gather the dust and neglect the gold.”

Service to Humanity: “Nobel sentiments to be found only perhaps in Hindu Medicine! And these are sentiments which not only read fine in books but are to a large extent yet followed by every practitioner of Hindu Medicine who treats so many of his poverty-stricken fellow beings gratis in every village of India, Charging nothing for attendance or medicines and often helping them with money to purchase their diet. Such ennobling sight all around is to be found only in India, where the house of every Ayurvedic practitioner is a miniature charitable dispensary. Such charities are not the matter-of-fact charity of a large endowed

hospital but a charity enjoined by the teaching itself. Whilst fully appreciating the great services done by hospitals in these days, I venture to assert that Ayurvedic physicians do more service to the people in any town or village by their private medical charities than many hospitals, so far of course as medical (not surgical) treatment is concerned. Do not these heroes and their Alma mater – the Ayurvedic School of Medicine deserve well of the State and the people?”

What Ayurveda has given ?: “Ayurveda” is the “Science of Life” or the great world science of Medicine, which has for its object not only the protection of human life but also of the life of animals, even of plants. Hindu Medicine is but a poor expression to imply Ayurveda, Ayurveda is not only Medicine but Medicine Surgery, Midwifery, Ophthalmology, Treatment of mental diseases etc. So great indeed was the progress made in Ayurveda that the eight different sections of this great Science and Art had, at one time, schools of different specialists with massive libraries of differentiated literature to back them. I do not propose to go into the details here but I may mention in passing that the very surgical instruments and the many surgical operations which Western surgery boasts of to-day were mostly devised by the Hindu Surgeons.”

“Veterinary Science, too, in its different sections developed considerably as a branch of Ayurveda. The care and treatment of horses was dealt with the *Śalihorta Saṃhitā*, of cattle by *Gautama Saṃhitā*, of elephants by the great work *Plakāpya Saṃhitā* – all of which still survive and the last of which has been published in Poona. Such then was the scope of Ayurveda- and such saving of life its object and meaning. Could this all be quackery as our opponents dub it?”

A Brief Historical Survey: “Modern histories of India – as I have said in the English introduction of my Sanskrit Text-Book on Anatomy *Pratyakṣa-śariram-* begin where the true history of Ancient India ends. The birth of Buddha or the reign of

Aśoka the Great marks not the beginning but the end of India’s past glory. A true history of the great achievements of the sons of India before that epoch is yet to be written. It was during that period extending over hundreds of years that the Medical Science as well as many other branches of science and literature made great progress and shed their luster on distant climes like Egypt, Greece, Rome and Arabia. Historians of antiquity have shown by no slender evidence that the colonization of Egypt by Indians took place during these pre-historic times. The name *Miśra Deśa* (a mixture) applied to Egypt and the costume and customs of the old Egyptians lead one to the same conclusion. Mr. Pocock in his valuable work “India in Greece” has shown by irresistible internal evidences that Greece owed her original civilization to India-her very mythology and old names were from Sanskrit literature. The civilization of Rome was a product of later age and both Greece and Rome owed a great deal to the Buddhist preachers, sent out by Aśoka and other Buddhist princes. The dress and manners of ancient Rome closely resembled those of ancient India. Arabian civilization came much later and Arab historians like Al-Beruni acknowledge in plain terms the great intellectual debt they owed to India.”

“But while Egypt survives only in her mummies and pyramids, the ancient glories of Greece and Rome have been nearly effaced under internal dissensions and barbarian invasions. It the other half of Europe, now the great nation-builders and educators of the world, had not come to their rescue, old Greece and Rome would have been now nearly forgotten. But a great part of the ancient glory of India still survives-notwithstanding greater crushing influence in the past, in the modest hamlets of the simple Pundits. Hindu Medicine still holds its own to no mean extent against all foreign rivals. Intrinsic merit based on solid clinical foundations can not be denied by thoughtful men to such an exponent of ancient glory, whatever its shortcomings at the present day.”

The Invasion of Greeks, Scythians, and Huns:

“Ever since the invasions by the Greeks (327 BCE) India had so many vicissitudes of fortune that one who arrays the facts of history before the mind’s eye can hardly wonder how so much of the past glory was lost. The real wonder is how so much has yet survived. After the great invasion of Alexander came the devastating hordes of the Scythians and after them the locust armies of the Huns, all of whom continued bloody warfare and pillage for hundreds of years. History bristles with the accounts of the horrors perpetuated by these barbarians. No doubt, much of the treasure of Indian literature was lost during these dark ages of pillage and incendiarism.



Fig. 1. Alexander the Great who invaded India in 327 BCE. He was much interested in the Hindu medicine mainly in curing snake-bites. It is said that he took along with him some Hindu physicians.

Even during the great revival which began with the reign of Yasodharmadeva Vikramaditya, surnamed Shakari or the mighty destroyer of the Scythians and Huns (5th Century? CE), only a part of the lost glory could be recouped by the intellectual luminaries of the period.

But the worst came when since the advent of India’s arch-enemy Mahmud of Ghazni (11th Century CE), the upper half of India was overrun and cruelly sacked, times without number, by the savage Saracens. Towns and villages were burnt and looted and kingdoms crumbled to pieces. Eventually, even the Deccan and Bengal did not



Fig. 2. An imaginary painting of Vikramaditya known as Yasodharmadeva Vikramaditya, surnamed Shakari or the mighty destroyer of the Scythians and Huns (5th Century? CE)

wholly escape their depredations. Every few of the limited number of written manuscripts, already tinned in bulk by the previous invader’s atrocities, could have survived such tremendous shocks. A feeble revival came again during the comparatively peaceful reigns of Akbar, Jahangir and Shajahan all of whom were lovers of Sanskrit literature.”



Fig. 3. Akbar the Great (1542-1605) during his period a feeble revival of Hindu medicine came. He had had also a Hindu physician in his court along with a Hakim

“But with Aurungzeb followed another reign of terror and Hindu-hatred and after him a period of rapine and anarchy which made the cultivation of science practically impossible. Now,

if the great libraries and universities of Belgium could not withstand the ravages and incendiaryism of the twentieth century warfare, was it possible that the meek unprotected hamlets of the Pundits could save their literature from the Scythians and Huns and a Ghazni and a Ghor, Chengiz Khan and a Nadir Shah, carrying havoc with torch and sword?"

"Yes, if the destroyers of India came from close quarters, the rescuers of India came from far away, The greatest renaissance has come at last-now that under the benign peaceful rule and kind encouragements of our kind-hearted and enlightened Government, great researches in India literature mark the mighty awakening of India from her long slumber". (*Pratyakṣa-Śariram-Introduction*).

The Lost Literature: "Great and permanent was the loss suffered by Ayurveda as in fact every other branch of Science and literature during the evil times that befell India. Numerous original works of the master minds quoted in the extant works and commentaries are now not available. Of the school of physicians headed by the sage Atreya, not only the six great works or *Samhitās* written by his six pupils-Agniveśa, Bhela, Jatukarṇa, Parāsara, Hārīta and Kaśarpani- but also other great works called- *Viśvamiṭra Samhitā*, *Kharnada Samhita*, *Kapila-Tantra*, *Gautama-Tantra* etc. are apparently lost to us. Only one of them, the *Agniveśa Samhitā*-thrice revised and recast-survives in skeleton and is known as the famous *Caraka Samhitā*. A spurious work passes for *Hārīta Samhitā*. *Bhela Samhitā* has been found in crippled condition in the Tanjore State Library of the school of Surgeons headed by the Royal master Dhanwantri, who held his great Ayurvedic College in this very city of Benares, almost all the mighty works by his pupils, Suśruta, Pauṣkalavata, Gopura-Rakṣita, Bhoja, Bhaluki, Karavīrya, Vaitarane, etc., have passed into oblivion except in the numerous quotations found in the old commentaries still available. Only

one of them, the *Suśruta Samhitā*, as a revised and recompiled summary of the great original called *Vṛddha Suśruta* survives to tell the tale of mutilation. The re-compiler of Suśruta drew largely from a great work by Videha on the diseases of eye, ear, nose and throat, but this all well as the large *Samhitās* on the same subject by Nimi, Kaṅkāyana, Gargya, Galava, Cakṣuśya, Sātyaki, Saunaka, Karala, Kṛṣṇatreya, etc., live only in quotations. In diseases of children, none of the works of Jivaka, Parvataka, Hiranayalaśa, etc., have been yet found out."

"In Toxicology, of the great *Samhitās* of Kaśyapa, Alambāyaṇa, Uśanās, Sanaka, Latyāyaṇa, etc., only the first has been traced incomplete in the Tanjore State Library by the learned Pandit Yadavji Tricumji of Bombay. In the sections of *Rasāyaṇa* and *Vājīkaraṇa* the two great distinctive branches of Ayurvedic literature, the great works by Patañjali, Vyādi, Vasiṣṭha, Māṇḍavya and Nāgārjuna survive only in some quotations and inscriptions. The existence of these and other authoritative works about a thousand years ago could be proved by unquestionable



Fig. 4. Nalanda University. Towards the Southeast of Patna, the Capital City of Bihar State in India, is a village called the 'Bada Gaon', in the vicinity of which, are the world famous ruins of Nalanda University exist. Founded in the 5th Century CE., Nalanda, is known as the ancient seat of learning. Here, 2,000 Teachers and 10,000 Students from all over the Buddhist world lived and studied. It is known as the first Residential International University of the World.

evidences, which I have quoted in the Sanskrit Introduction of my work on Anatomy.”

“It may not be out of place here to observe in passing, that the decline and Buddhism practically synchronized with the decline of Hindu Medicine. The chronicles of Buddhism clearly show that in the universities of: Nalanda and Takṣaśīla (Taxilla), two branches of literature were studied particularly, viz. *Hetu śāstra* or Logic and *Cikitsā śāstra* or Medicine. Benevolence being the watchword of Buddhism, there was no lack of hospitals or medical charities both for men and animals during the reigns of Bimbisara, Asoka and other Buddhist princes. We hear the name of the famous physician Jivaka*-(Surnamed “Komarabhacca” or Kaumārabhr̥tya?) in connection with the court of Bimbisāra. Both, he



Fig. 5. Taxilla University flourished between 600 BCE and 500 CE, in the kingdom of Gandhar, in Ancient India, but now in Pakistan. Here, 68 subjects were taught and the students from all over world used to come to attain specialization in these subjects. The main subjects were; Vedas, Grammar, Philosophy, Astronomy, medicine (Ayurveda), surgery, politics, archery warfare, music, dance, commerce, futurology etc. There were even curious subjects like the art of discovering hidden treasure, decrypting encrypted messages, etc. Bhikcu Attreya was a teacher in this university

and his great teacher Bhikṣu Attreya are said to have attended the great Buddha himself and his followers.

Again the famous Buddhist patriarch Nāgārjuna is believed by many to have been the reviser and re-compiler of the present day, Suśruta. Vāgbhāṭa, the well-known Ayurvedic author for reputation next only to that of Caraka and Suśruta, was also a Buddhist of Sind who lived probably in the 5th or 6th century CE. He has left us two valuable works, the *Aṣṭāṅga Saṅgraha* and the *Aṣṭāṅga Hṛdaya*, which may be respectively called a large Encyclopaedia and a small comprehensive epitome of Ayurvedic literature. It appears from a close study of these works however, that the decline of Ayurveda had already begun in Buddhist times when finding the old literature perishing fast, Vāgbhāṭa worked hard to summarise all the medical information good, bad or indifferent that he could then lay his hands upon. Many authors of the famous *Rasatantras* or works on Medical Chemistry too, appear to have flourished during the Buddhist period.

We are, however, landed on such a time that most of these names (of which I have given nearly fifty) will come, not only to the lay public but also to many Ayurvedic physicians and scholars, as new revelations. Is it not our duty, unworthy sons as we are of worthy forefathers, to unearth these great works like the illustrious Lieutenant Bower, who found out in Chinese Turkistan, the famous Ayurvedic work called *Navani-Takam* in the Bower manuscripts so ably deciphered by the indefatigable Dr. Hoernle of Oxford? I also trust that Dr. Stein who, working under the auspices of the Government of India has just returned from his manuscript-finding tour in Central Asia will add to our knowledge of fresh works of Hindu Medicine along with those of various other branches of Sanskrit Literature by

* **Jivaka** was another genius who came out of the Takṣaśīla (Taxila) university. Takṣaśīla or Taxila university existed at a place currently in Pakistan. It gets its name from Takṣa, who was the son of Bharata (the brother of Rāma). Takṣa ruled over the kingdom of Takṣa Khaṇḍa, which even extended beyond modern day Uzbekistan, and Tashkent.- Author)

bringing to light numerous works which so far exist only in name.

Pānini the great Sanskritist and scholar was another great product of this university (Taxila). He was an expert in language and grammar and authored one of the greatest works on grammar ever written called *Aṣṭādhyāyī*. *Aṣṭādhyāyī* means eight chapters and is more complicated and at the same time highly technical and specific defining the features and rules of Sanskrit grammar. He was a doctor and an expert in pulse reading (understanding the health status of the body by just listening to the person's pulse!). He studied Ayurveda in Takṣaśilā University for seven years. His areas of specialization was *Pañcakarma*, *Marma* and Surgery. Jivaka was the personal physician of Buddha and also cured the *Nāḍī Vrana* of Buddha! He also worked with the great classic beauty Āmrāpālī and ensured that she retained her youthful countenance and performed many amazing operations on her using only *Marma* points and surgical procedures! He also invented a cure for Filariasis. There are over 15000 handwritten manuscripts of Jivaka's expertise passed on by generations to their children and are still preserved in India even today.

Past Successes the dissection of corpses for learning: “Most of you, I believe, have heard of the past glory of Ayurveda. When the greater part of the world was submerged in the abyss of ignorance, it is the Indian sages, who first understood the necessity of dissection of the human body in the education of Physicians and Surgeons. Says Suśruta, writing in unmistakable language to thousand years ago –

तस्मान्निः संशयं ज्ञानं हत्रा शल्यस्य वाञ्छता ।
शोधयित्वा मृतं सम्यग् द्रष्टकोऽङ्ग विनिश्चयः ॥
शरीरे चैव शास्त्रे च दृष्टार्यः स्वाद् विशारदः ।
दृष्टश्चुताभ्यां सन्देहमवायो ह्याचरेत् क्रियाः ॥
(Suśruta, *sārira*, Ch. V.)

“Therefore, whoever wishes to practice Surgery, must prepare a corpse in the proper way and see by careful dissection

every part of the body in order that he may have definite and doubtless knowledge”

“Compare with this what Dr. Pusehmann says in his “History of Medical Education” about the practice of dissection in Europe- “Dissection” of the human subject was in the first centuries of the middle ages opposed by religious and political ordinances and also by social prejudices”.

Circulation of blood: “Circulation of blood was understood with fair clearness long long before the much-talked-of discovery by Sir William Harvey in the seventeenth century. Let me quote a passage here to illustrate this:

“तेन मूलेन महता महामूला मता दश ।
आजोवहाः शरीरेऽस्मिन् विधिभ्यन्ते समन्ततः ॥
पेनौजसा वर्तयन्ति प्रीणिताः सर्वजन्तवः ।
यद्दत्ते सर्वभूतानां जीवितं नावतिष्ठते ॥
यत् सारभादौ गर्भस्य पोऽसौ गर्भसाद्रसः ॥
सर्वर्तमानं हृदयं समाविशति यत् पुनः ॥” इत्यादि ।
(*Caraka, sūtra*, Ch. XXX)

“From that great centre (the heart) emanate the vessels carrying blood into all parts of the body-an 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.”

“And wonder of wonders, what could have been discovered by the ancient sages of India over a couple of thousand years ago came as so great a surprise to most medical men in Europe in Sir William Harvey's time” No doctor above the age of forty could be persuaded to believe in the impossible suggestions” of Harvey who was condemned and booted out of society for his discovery (Vide Hume's *History of England*).”

What is Vāyu, Kapha and Pitta?: “The theory of *Vāyu*, *Pitta* and *Kapha* was also a great discovery which, unfortunately, has been much misunderstood by western scholars judging by the wrong irresponsible translation rendering these



Fig. 6. William Harvey (1 April 1578 – 3 June 1657) He was an English physician who first told the world about the circulation of blood and made seminal contributions in anatomy and physiology

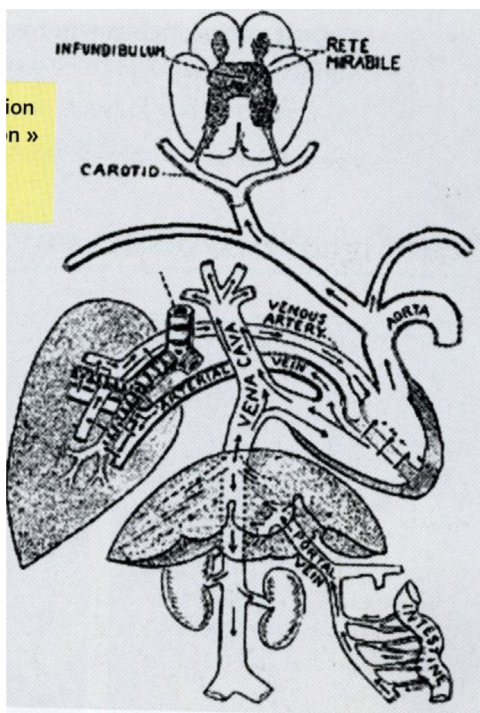


Fig. 7. William Harvey's diagram showing circulation of blood

terms as “Wind, Bile and Phlegm”. The proper explanation of this theory will take up a treatise by itself but let me observe here in passing that the word *Vāyu* does not imply “Wind” in Ayurvedic literature but comprehends all the phenomena of motion which come under the functions of life-or to be more explicit-functions

of life as manifested through cell-development in general and through the central and Sympathetic Nervous Systems in particular; 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, metabolism, colouration of blood and formation 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 (thermo-taxis or heat-regulation) and secondarily the production (and products) of the various preservative fluids, e.g. Mucus, Synovial, etc., which are the manifest forms of that function. We regret, we cannot do justice to this subject here for want of time but we hope the above would give a clue to the student who means really to investigate. It must be remembered that the theory of *Vāyu*, *Pitta* and *Kapha* is not the same as the old expounded humoural theory of the Greek and Roman Physicians who, though they borrowed the idea from Ayurveda, probably failed to grasp the true meaning of the theory.

I am convinced that the truth and the particular value of the Ayurvedic theory can be verified. It affords sensible explanations of certain otherwise in-explicable facts in the physiological cycle of life as well as in the causation and amelioration of diseases and their symptoms. It can guide you in understanding the laws of general therapeutics-which it would be much to the advantage of any medical man to learn. I dare say that studying the subject with an open mind, he will be converted to believe in the theory. As we find in daily practice, even a half-educated Ayurvedic physician who remembers the laws of Etiology and Therapeutics and Dietary based upon this theory fares pretty well by the bedside of his patient.”

The chemistry in Ayurveda: “The advances made in Chemistry by the ancient sages have been

already dealt with by the distinguished scholar Sir. P.C. Roy of Calcutta. When we consider the remote age in which these advances were made, we have to bow to the wisdom and ardent spirit of research which characterized the work of the ancients. In Botany too of which only scanty records are available in the writings of Vāgbhāṭa, Śāraṅghara, etc. and some material advances appear to have been made.”

Vṛkṣa-Ayurveda : “Plants were called *sthāvara-jīva* or stationery animals which could feel pleasure and pain. This indeed is a fact which has been at last proved by accurate experiments by our illustrious Professor J.C. Bose of Calcutta. A regular symptomatology and treatment of plant-diseases were also known under the name of “*Vṛkṣa-Ayurveda*” which I have already referred to and some portions of which are still available in the writings of Śāraṅghara and in *Agnipurāṇa*.”



Fig. 8. Vṛkṣa-Ayurveda. According to Vaidya Gananath Sen some portions of it are available in Śāraṅghara and in *Agnipurāṇa*. It is a science for the treatment of plants or plant pathology or plants science. Asian Agri History Foundation has brought out a book written by Surapāla

Materia Medica and Pharmacy: “In the field of Materia Medica and Pharmacy, the properties of drugs and food-stuffs were investigated and described by a terminology the meaning of which, properly understood, does not fail in numerous instances to give a correct insight into therapeutics. Unfortunately, however, this terminology has yet remained a sealed book to those who have judged

it from inaccurate translations. In Pharmacy, the art by which the properties of a drug or drugs are imbued in spirits (as in *Asavas and Ariṣṭas*) in Ghee, Oil, Syrup, etc. was well known.”

Makaradhvaja: “Therapeutics of mercury and its compounds and other minerals, finest preparations of which are made in a form assimilable by the human system show the great advances that yet mark the excellence of Ayurvedic Medicine. Strongly, it is not yet known to Western Medical men that Mercury, when combined with Sulphur as in the Black Sulphide or Red Sulphide can never produce Mercurialism, a knowledge which is the birth-right of all Ayurvedic physicians. Yet, I have seen Western medical men including such authorities as Sir Pardey Lukis use the well-known preparation of Mercury known as “*Makaradhvaja*” without any prejudice and with a fairly proper judgment of its true value. What a pity then that, without a shade of medical training, Chemists like Professor P. Neogi have rushed in boldly to disclaim the real therapeutic merits of “*Makaradhvaja*” Chemistry, till now at least, can little explain why natural Salicylates are more effective than the synthetic Salicylates, why Beech-wood Creosote is more valuable in therapeutics than the Coal-tar derivative of the same name, why the true mineral waters are more reliable than their exact imitations made by the chemists.”

Adoption of the foreign drugs: “In this connection, I should also mention, in passing, that one particular feature of Ayurvedic works, specially of later periods, was that even foreign drugs having valuable therapeutic qualities could be taken up and used without any prejudice, for instance, such drugs as Rhubarb, Opium, Jamaica Sarṣa, etc. (Vide the writings of Bhāva Mīśra).”

The diagnosis from hearing of sound and the diseases caused by the ‘micro-organisms’: “In Medicine proper, it is enjoined that diagnosis should be made by the five senses supplemented by interrogation. The method of direct auscultation



Fig. 9a. Rhubarb, *Rheum species* vide Bhāva Mīśra this was a foreign drug (from China) later associated with Ayurveda under the name of *Revanda chini* and in Kumaon & Garhwal the roots are known as Dolu



Fig. 9b. The Aerial part of *Rheum sp.* consume as vegetable in European countries. In Uttarakhand these are known as *Robur* (possibly from rhubarb) and the leaves and stems are eaten as vegetable



Fig. 10. Opium was introduced in Ayurveda as 'Ahifen'. The dried exudation of poppy raw-head is known as opium

or hearing of breath-sounds, etc. was probably known to them as we find its evidence in the following passages of Suśruta;

श्रवणोन्द्रियाग्राह्यः, “सफेनं रक्तभीरयन्निः
सशब्दो निर्गच्छति” इत्येवमादयः
(*Suśruta, sūtra*, Ch. X)

which seems to refer to the crepitations or rales, audible in wounds & probably in Pneumonia and other lung-diseases as well. The Bacterial origin and the infective nature of certain diseases as the eruptive fevers, Leprosy, Small-pox, Tuberculosis etc., have also been clearly indicated in such passage as these:-

सर्वाणी कुठानि सर्वातानि सपित्तानि सकफानि
सक्रिमीणि चोर्पायश्चन्ते ।
(*Suśruta, nidāna*, Ch. V.)

“All forms of leprosy (and some skin diseases) are not only due to the derangements of *Vāyu*, *Pitta* and *Kapha* but are also of parasitic (micro-organism) origin.”

Again,

“कुठं ज्वरश्च शोषश्च नेत्रभिष्यन्द एवं च ।
औपसर्गिकरोगाश्च संक्रामन्ति नरात्तरम्” ।
(*Suśruta, nidāna*, Ch. V.)

“Various skin-diseases and Leprosy, Fever, Pulmonary consumption, Ophthalmia and Epidemic diseases borne by air and water are usually capable of transmission from one man to another”.

रक्तवाहिसिरास्थाना रक्तजा जन्तवोऽसावः ।
अपादा वृत्तताभ्राश्च सौन्ध्यात् केचिददर्शनाः” ।
इत्यादि ।
(*Suśruta, uttara*, Ch. 54)

“There are various fine organisms (sense of micro-organism), which circulate in the blood and are invisible to the naked eye; usually these look like round bodies of copper colour and are without legs. They give rise to various forms of skin diseases etc.”.

“But most important are the principles of Medicine recommended in the treatment of

Fevers, Phthisis, Bowel complaints and various chronic diseases of the Nervous System which are so elaborately and rationally dealt with that the western medical men, who take pains to study them in original would considerably profit by them. Such a study by one, namely, Dr. George Clarke, MA, MD of Philadelphia, reading *Caraka Samhitā* even in a half-done translation elicited the following remark :”

“As I go over each fasciculus (of Caraka), I arrive at one conclusion and that is this: If the physicians of the present day would drop from the Pharmacopoeia all the modern drugs and chemicals treat their patients according to the methods of Caraka, there would be less work for the undertakers and fever chronic invalids in the world.’

“Consider also the very excellent and effective methods of medication by the various cleaning and retentive enemata of certain decoction and oils (called *Niruha* and *Anuvāsana*), so systematically described as two of the five essential methods of treatment. All these unfortunately have been mostly forgotten or abandoned by the present day Vaidyas but the demand our careful attention and study nevertheless, as they are productive, I say from experience-of very agreeable results in many chronic diseases. In the treatment of diseases of the Eye, Ear, Nose and Throat, not only various effective collyriums, eye- lotions, gargles, vapours, sprays, blisters etc., have been described but also a particularly useful method called ‘*Siro-Virocana* ‘ or the use of Errhines has been prescribed with full instructions. The last is a method of treatment I have often found very effective in many chronic cases, which seemed incurable according to the Western System of Medicine. It is a method which learned doctors would do well to follow in certain afflictions like obstinate head-ache, glaucoma, optic neuritis etc. The method is simply that of inducing catarrh with the aid of some acrid dry or fluid Errhines (e.g.



Fig. 11. *Luffa Bindal* (possibly *Luffa acutangula* (L.) Roxb (*Kali torai*) presently used in Pakistan in medicine all parts are bitter). Fruit were used by Gananath Sen in chronic cases, which seemed incurable according to the Western System of Medicine such as obstinate head-ache, Glaucoma, Optic Neuritis etc. The method is simply that of inducing catarrh with the aid of some acrid dry or fluid Errhines (e.g. the powder or decoction of the fruits). Similarly, *Abrus precatorius* was also used for the same purpose



Fig. 12. Seeds coming out from the dried pods of *Abrus precatorius*. The roots are known as Indian Licorice as it is also sweet like licorice

the powder or decoction of the fruits of *Luffa Bindal*, *Abrus precatorius*, etc.)”

Surgery in Ayurveda: “In Surgery, the progress made seems to have been wonderful. Major operations like Amputations, & Laparotomy (i.e. opening the abdomen for intestinal obstruction or other troubles). Lithotomy (or extraction of stone) and even Trephening of the skull were well-known to our old sages. The excellent classification and description of the surgical instruments under different heads as found in Suśruta and Vāgbhaṭa compel the admiration of those who take pains to

study them with care. There can be little doubt that the old Greek and Roman surgical instruments that are found preserved in the museum of Naples are only the replicas of Hindu instruments yet found accurately described in texts at least two thousand years old. Unfortunately, here too as in other branches of Hindu Medicine.”



Fig. 13. An imaginary painting showing a surgery performed by Suśruta

“Ancient surgeons have been wronged by certain scholars of Western Medicine like the Thakore Saheb of Gondal and his follower Dr. G. N. Mukherjee of Calcutta a giving fantastic descriptions of Hindu surgical instruments which never existed except in their imagination. In a paper read partly before the Sāhitya Sabha of Calcutta and partly before the fifth All-India Ayurvedic conference (now being published in the “Indian Medical Record”), I have tried to show from old authentic texts that most of the modern surgical Instruments are only slightly modified reproductions of the ancient Instruments. I have already cited instances of these, namely, the *Simhamukha Yantra* which is nearly identical with the modern Lion forceps; and Allingham’s Speculum, which agree closely with “the four-bladed expansible instrument” described by Vāgbhaṭa as “मुद्रावच्छ चतुर्भिर्त्तमम्भोजमुकुलाननम्” in *Aṣṭāṅga Hṛdaya (sūtra. Ch. 25.)*”

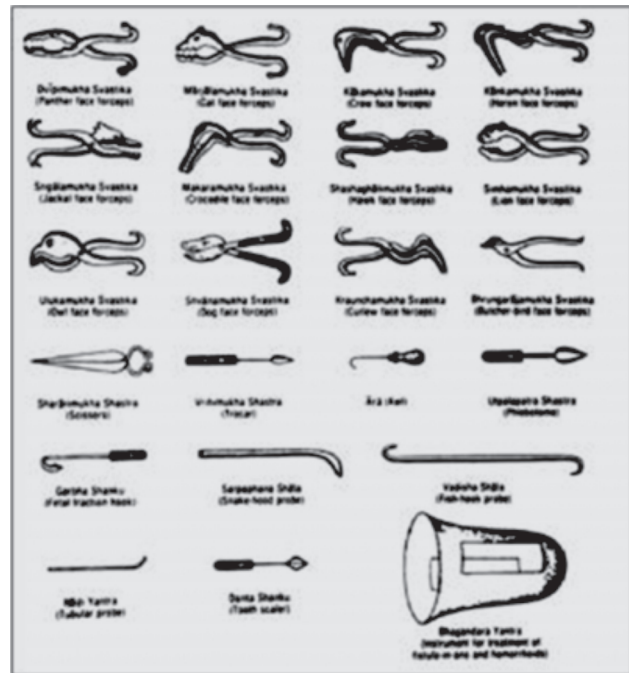


Fig. 14. Instruments used during surgery in Ayurveda

Midwifery: “In Midwifery, the different malpositions of the foetus at birth were well understood by the ancients and the different methods of treatment by version or turning the foetus in Utero, Embriotomy and Caeserian section described in ancient works stand as monuments of past glory.”

Compounds curing sexual debility: “Last, though not least, come the two specialized branches of Medicine-of Hygienic Medicine I should say-in which methods of warding off disease and age and keeping the sexual vigor intact have been dealt with. These are the branches known as the *Rasāyana* and *Vājīkaraṇa*. The main object in view of such treatment was the restoration of vigor and immunity (or “*Vaiṣṇavi Śakti*” as we should call it) by the preservation of the vital fluid, the necessity of which is now being faintly realized in Western Medicine. The researches of Brown-Sequard and Metchnikoff and other eminent scholars have only recently shown the importance of this subject in Western Medicine. These two sections of medicine

however, yet survive partly in Ayurvedic Medicine and partly in the Unāni system. I would draw the attention of all medical men to the necessity of patient research in these lines of Ayurvedic Medicine.”

Charges Against Ayurveda-Answered: “I now proceed to answer certain charges that have been leveled against Ayurveda by its ill-informed opponents. We have heard it said recently by Col. Jackson speaking in the Bombay Legislative Council, “Ayurveda was a very antiquated and a very empirical and unscientific method of treatment and that its revival would be a most retrograde step”.

“Now, from the short resume of Ayurveda given by me, could you think these charges were true? And if there was any empiricism, was it the monopoly of Ayurveda whilst Western physicians used Quinine, Arsenic and Iodides with perfect rationale? The very accurate principles of medicine which every well-educated Ayurvedic physicians follows in the treatment of diseases – The principle, for instance, of starving (up to a certain limit) a fever patient suffering from Auto-in-toxication (called ‘*Samata*’ in Ayurveda), of giving mild purgatives in the first stages of Dysentery, of giving plenty of fatty food in Tuberculosis, of enjoining salt-free diet in Bright’s disease and Anaemia, of treating obstinate cases of chronic diarrhea and Sprue with increasing doses of *Rasaparpati* (specially prepared black Sulphide of Mercury) and a pure milk diet, are these principles merely empirical? And is it all scientific to employ right and lefts all these new patent drugs of Europe and America which are thrust upon you with wily advertisements giving formula which have only the semblance of science? Are they prescribed with perfect satisfaction of rationale? What rationale is there in being told that *Salvarsan* is the Dioxy-diamide-arseno-benzol?”

“It is the clinical results that ultimately count and if you follow sound principles of

treatment, a little empiricism will always stand you in good stead.” The merely scientific physician,” says Dr. Clifford Albutt (a well-known English authority on Medicine). “is apt to be blind to useful manoeuvres which rest rather upon the accidental than the more permanent qualities of things.” And he goes on to say- “Prevalent opinions, though not formal truths, contain truths and this the practical physician does not fail to perceive: nor does he forget that the observations of any person however profound, being the observations of an individual of brief life and limited faculties, need some tempering by traditional lore and by the embodied opinions of a vast number of observers over a long period of time. “Why then bring the false chare found nowhere” in the Dictum of Caraka”- as Col. Jackson puts it – “That the intelligent physician should adhere to official recipes given in books of Medicine and not introduce innovations however logical etc.”? On the other hand, Caraka has said in clear terms :

कुत्सनो हि लोको बुद्धियतामाचार्यः
शत्रुश्चाबुद्धियताम्, अतश्चभिस मीदयं
बुद्धिमताऽमियस्यापि धन्यं यशस्यमापुष्यं पौष्टिकं
लौकिकमभ्यु पदिशतो वचः श्रुतित्यनु विद्यातष्य
चेति ।

(*Caraka, vimāna*, Ch. VIII)

“The intelligent should look upon every one as their teacher and gather the best in applied therapeutics even when that knowledge comes from the enemy”.

Again says Vāgbhaṭa-

असातशास्त्रमडावान् शास्यमात्रप्रायणान् ।
वर्जयतान् भिषक्पाशान् पाशान् वैवस्वतानिव ॥
(*Aṣṭāṅga Hṛdaya, uttara*, Ch. 40)

“Those that follow the recipes of books blindly and are not capable of reasoning their application should be condemned of reasoning their application should be condemned and looked upon as the snares of death.”

“Again, the learned Colonel falls foul of Ayurveda because in the general list of mineral,

vegetable and animal substance used in Ayurvedic medicine are found included” fat, bile, marrow, blood, flesh, urine, hoof, etc., For is not bog’s lard used in Western Medicine sanctified by being called “Adeps” and Ox-bile made delicious when called “Fel Bovinum” and so forth? Certainly antiquated Sanskrit names could not impart the same acceptability that jaw-breaking Latin names of the British Pharmacopoeia can? So, down with antiquated Ayurveda which prescribed these substance and up with bone-marrow, tabloids, raw-meat-juice and calf’s foot jelly; Fortunately, the rulers of our land have reasons superior to such wisdom.”

“I do not here propose to discuss or defend some effete material that has crept into and mutilated Ayurvedic literature and which any opponent of Ayurveda could take the pains to gather to scandalize Ayurveda. Such effective material is nothing but interpolation and is like the chaff that must be eliminated if the nutritious grains are wanted.”

“The charge that Ayurveda is not a progressive system is not so much a charge against the science itself as against ourselves. Ayurveda progressed considerably whenever there was peace and prosperity in the land; it is against showing signs of life and progress all over India. We must not forget the vicissitudes that befell all Indian literature during so many centuries. The spirit of acquiring knowledge enjoined by Ayurveda is the spirit of progress. It demands that you should investigate and learn and add to the store of knowledge left to you by the ancients. Even shepherds and cow-boys knowing the properties and identification of drugs were not despised by Ayurvedic authorities. They borrowed from foreigners, whenever they found it necessary, of which I have already given examples. So we do injustice not only to ourselves but also to our forefathers when we suffer Ayurveda to remain at a standstill and allow our opponents to call it stagnant.”

A Word to Western Medical Men : “Whilst on this subject, I beg to offer a piece of advice to those right-minded friends of mine, who have from time to time, evinced a commendable desire to learn Ayurveda. To these I say, try to have a working knowledge of Sanskrit, before you begin to study Ayurveda. Learning Sanskrit, at least so much as to prepare one for the study of Ayurveda is not so difficult as is usually supposed, especially if the attempt is made to learn the language rather than the intricacies of Sanskrit Grammar. I know some friends of mine in the medical circle, who have taken great pains to learn French or German in order to be able to read certain works on Medicine and Pathology in original. Now if knowledge of French or German is useful and important in the study of Western medical literature, the knowledge of Sanskrit is essential and indispensable in the study of Eastern medical lore. Again, the Bengali and English translations of Ayurvedic works that have been published now and again are mostly the work of mercenary and lay, irresponsible men who know and care to know little of the technique of the medical science. These translations, very unlike the excellent English renderings of the German and French works, betray ignorance and lead to mis-interpretation. Even learned and careful scholars of the West, like Dr. Wise, Dr. Royle, Sir William Jones, etc. to whom we must be highly grateful for their partiality to Eastern literature, have often, though unconsciously, cast shame on Ayurveda by misunderstanding certain great truths (Cf. the misinterpretation of *Vāyu*, *Pitta*, *Kapha* mentioned before). Then again, there are those biased and hasty judges, like Hass and other writers who have mentioned Ayurveda only to condemn it. Many an apparition might be conjured up in the darkness of ignorance. For those honest students of Eastern medical literature who have the mind but not at present the means of Sanskrit knowledge to learn the subject fully, I have only to add-Beware of these apparitions.”

“In this connection, Western medical men should also remember that many of the principles of treatment recommended in Ayurveda are almost identical with those of Western medicine-only the drugs and methods of administering them are somewhat different. So, an open-hearted and liberal co-operation of both should be a source of great help to the profession as a whole and to the sufferers entrusted to our care.”

The Present State of Ayurveda and the need for its reform: “Whatever may have been the past glory of Ayurveda, it would be self-deception on our part to think that we still sit on a high pedestal. The fact is unfortunately just the other way. The number of Ayurvedic physicians in India is legion but soundly educated exponents of the ancient system are not yet numerous. Besides this, there is yet a good deal of conservatism which is contrary to the liberal spirit of Ayurveda and which must be overcome.”

Valuable literature in Ayurveda: “Much of the old valuable literature has been lost and what exists is not often studied in scientific spirit. If the sound principles and methods of treating diseases with the time-honoured recipes of reliable efficacy were not there, the Ayurvedic system of medicine would have been dead by this time in the struggle for existence. So, let us not be slow in recognizing the crying need for reform. Let us clearly understand that our Anatomy and Physiology might have been comprehensive at one time, but as we have them at present, they need to be sifted and supplemented. Our Chemistry, Botany and Materia Medica might have been once ahead of the West, but now we must recast and remodel them according to the present high scientific standards. We may have once made great progress in Surgery but we must, confess that we now lag sadly behind. And again our old methods of study might have been of a high order but we must not be timorous to admit that the present methods by which so-called *Kavirājas* are manufactured out of idle pupils or compounders in many cases are

fit to be mercilessly condemned. And even in the great departments of Medicine and Pharmacy which are our great pride and mainstay, we must work hard to-rediscover, demonstrate and utilize the principles of Medicine that form the bed-rock of our treatment. In other words, we must establish them on the sound-footing of actual observations and experiments according the methods of the West, we must make good the losses we have already sustained. To cite a common place simile, Ayurveda is just like the famished old father who leans upon his grown-up son for food and support. But because the father is old and diseased, I trust, it will not be proposed to kill him altogether.”

“It is not only a question of sentiment. The pick and flower of our countrymen who have acquired mastery over the Western medical science must be inwardly aware that the hug vaunted machinery of western pathology and bacteriology and medicine are often found inert and clogged when certain chronic diseases are encountered, diseases which every now and then the old irrational *Vaid* or *Kavirāja* manages to cure with traditional recipes of his forefathers. So, true scientific spirit demand that we should cast off all prejudice and investigate with an open mind. It is a good sign of the times that such an investigation into the action and uses of indigenous drugs has begun by foreigners and some of our countrymen following in their footsteps. Unfortunately, however Ayurveda will not profit much by the results of these investigations. The western Pharmacopoeia will profit by them and pamper on them whilst the chances are that the Ayurvedic Pharmacopoeia will grow poorer. Should we remain silent on-lookers in this crisis? “

The Work of regeneration already begun: “It is a matter for congratulation that already some good work has begun in the Ayurvedic world. During the last ten years, 1910-1916, the spirit of awakening is abroad,- as evidenced in the All-India Ayurvedic Conference, of which seven annual sessions have been held in different

provinces. The Ayurveda Mahāmaṇḍala, the representative standing Committee of the Conference, is constituted annually of members elected from all parts of India and working all the year round. Side by side and under its auspices works the All-India board of Ayurvedic education, which hold simultaneous examinations in several important centers of India as Calcutta, Dacca (now in Bangla Desh), Madras, Poona, Bombay, Ahmadabad, Ajmer, Lahore (now in Pakistan), Delhi, etc. In these examinations, the trusted representatives of Ayurvedic medicine of all provinces of India are appointed examiners and practical examinations are also held under their management. The new curricula of studies laid down by the Board are according to up-to-date syllabus in chemistry. Anatomy, Surgery, Toxicology, Medical jurisprudence etc. It is hoped that Ayurvedic practitioners going through these course of study will raise the status of their profession. The examination, I may add, are becoming more and more popular and it is expected that with better arrangement for education they will be more popular still. Of Ayurvedic School too, the number is increasing. We have an excellent school at Madras under the management of Vaidyaratna Pandit D. Gopalcharlu, which has a charitable dispensary attached to it. There is a similar one at Bombay under the management of D. Popat Prabhuram who devotes his whole energy for its welfare. In the Maharaja's College at Jaipur, the Ayurvedic section is doing good work in training students under such professors as the learned Pandit Lakshmiram Swami Ayurvedacharya."

"There also an excellent Ayurvedic school at Poona under the learned Pandit Krishna Sastri Kavade B. A., who works with undaunted spirit. There are state Ayurvedic colleges in Travancore and Mysore, some of which are sending out their passed students to various parts of India with good stipends to enable them to make post-graduate studies. The Ayurvedic Section of the D.A.V. College of Lahore is doing good work and it is

being remodeled and equipped with some up-to-date arrangements. There are other Ayurvedic schools like the Lalit-hari Ayurvedic College of Pilibhit U. P., the Vanwarilal Ayurvedic School of Delhi, the Gurukul Ayurvedic School, Kangra, etc., all of which are doing excellent work in their own ways. In Bengal, there are two or three schools of Ayurveda which work rather indifferently, Ayurvedic teaching is mainly imparted under the old system and apprentice system combined. Almost every eminent Kavirāja there not only teaches a number of students but trains them under his personal care, giving them free board and lodging for several years. So, the charge that there are no Ayurvedic schools in India heard of from some quarters is very ill-founded."

"No less than fifty Ayurvedic journals in seven different languages of India are also being published monthly, (in 1916) some of which are eager to absorb and expand the Knowledge of recent discoveries in the medical world. All-India Ayurvedic Exhibitions are being held year after year along with the All India Conference by which more knowledge about the uses and identifications of indigenous drugs and rare books is being made. Ardent scholars like Lieutenant Colonel K. R. Kirtikar I.M.S., F. L. S. (retired) of Bombay and Major B.D. Basu I. M. S. (retired) of Allahabad are working hard to collect, identify and fully describe plants of Indigenous medicine. Text book on Anatomy, Physiology, Pathology, Toxicology, and up-to-date Hygiene are being written for the benefit of Ayurvedic students of Sanskrit, Marathi, Hindi, and other languages of India. Sanskrit being it the common language of scholastic India, Sanskrit text-books are much in demand yet."

"Some rare books on Ayurvedic Medicine too are now being published in the *Ayurvedīya Granthamālā* series by the indefatigable Pandit Jadavji Tricumji of Bombay. The Anandasarama Sanskrit Press of Poona and the governments of Mysore and Travancore, as also the Asiatic Society of Bengal, also deserve our thanks for some valuable publications on Ayurveda."

A Word of Appeal: “Yet, I must point out that the good work that is being done is too meager, when compared to the vast campaign before us. Long manuscript-collecting tours should be undertaken by arduous well-informed scholars having the regeneration of Ayurveda as their aim and object. Remembering that the ravages of the heartless invaders of India did not spread so wildly into the Deccan as in other parts of India, I venture to assert that such tours in the southern half of India would be productive of great results. Well-equipped Ayurvedic Colleges having full facilities for anatomical dissection, physiological demonstrations, and physics and chemistry classes should be founded in every province and affiliated to the Hindu university or the all-India Ayurveda *Vidyāpīṭha*. To be should attached Ayurvedic hospitals for the treatment of acute and chronic diseases to supplement the good work of already existing hospitals conducted on western lines. Such institutions should from the fountain-springs from which direct clinical knowledge should flow abundantly into the minds of Ayurvedic students. Pharmacological and analytical laboratories for the investigation of indigenous drugs should also work unceasingly as parts of these institutions, and for new discoveries and demonstrations on Ayurvedic lines.”

The Ayurvedic Libraries and Gardens, Herbaria, Museums: “Libraries of Ayurvedic books, and also gardens, herbaria and museums of indigenous drugs should also be maintained with proper care to facilitate practical knowledge and research work. All these may appear to be an order too large for our means but there can be no doubt that such should be our ideals, provided we seriously contemplate the conservation of India’s wisdom in the medical science. The suffering millions of India whom Ayurveda saved for centuries past and is still serving to no small extent, demands from us that we should give them the benefits of the same system in all the lustre and exactitude that western methods are capable of giving it. We have built up great hopes and have

the fullest confidence in the future work of the Hindu University so it is incumbent on us to set the great ideal in this humane work.”

“The Ruling Chiefs and the wealthy philanthropist under whose parental care so much excellent work is being done in Ayurvedic schools and charities owe it themselves to expand these institutions up to modern ideals.”

“It was high time that the State and people moved and helped the Ayurvedic system with unstinting generosity and care. India’s need for medical aid is neither small nor limited. Considering the proportion of medical men to the vast population, India of all countries is most poorly supplied with medical aid. The proportion of medical men trained in western Medicine to the teeming millions who are ailing from year’s end to year’s end with Malaria, Cholera, Tuberculosis, Fevers and various chronic diseases is simply like that of a drop of oil on the surging ocean. The salvation of diseased India lies in the rejuvenation of Ayurvedic Medicine side by side with the progress of the Western system. There will be no difficulty in obtaining indigenous drugs in abundance. War (Ist world war 1914-16) will not affect their prices. The noble bands of silent workers who are doing so much thankless good work all over India with the aid of indigenous drugs certainly deserve encouragement and not damning. Fortunately, our kind-hearted rulers, (The Britishers and Rājās & Mahārājās of different states) are not quite indifferent to this matter. To the voice of the All-India Ayurvedic Conference, they have already responded and our grateful thanks are due to them. Let us hope that, as time rolls on, our benign Government will come forward with wider sympathies to help the rejuvenation of Ayurveda for the good of humanity. But before that, let us ourselves leave no stone unturned to demonstrate the merits of Ayurveda before the world for Ayurveda is a great, boon and heritage, of India first and of the world afterwards.”

APPENDIX



Fig. 1. Mahamahopadhyaya Kaviraj Gananath Sen who delivered the Address on Hindu medicine at the inauguration of Hindu University, Varanasi. In 1921 he started clinical research preparing injectables, aerosols, and rectal preparations from Indian medicinal plants



Fig. 3. Lord Hardinge, the Viceroy of India (1910-1916) during his period the capital of India was shifted from Calcutta to Delhi. He also graced the occasion of the foundation day of Hindu University of Benaras



Fig. 2. Pandit Madan Mohan Malviya, the founder of Hindu University of Benaras



Fig. 4. Maharaja Rana of Jhalawar Sir Bhawani Singh Bahadur, Who presided the function and liberally donated for the foundation of the Hindu University of Benaras. © National Portrait Gallery, London

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