
1. PROPAEDEUTICS

Philosophical background of Ayurveda

We must keep in mind the ancient physician Caraka's advice to acquire knowledge from all sources as there is no finality to Ayurveda or any system of medicine. An endeavor must be made to the point of accepting the truth even from an enemy. Further he says that the whole world consists of teachers for the wise and enemies for the fools. Anything that is conducive to maintain health, longevity, fame and excellence should be received, understood, and earnestly utilized.¹

This quotations gives ample evidence of the non-sectarian nature of Ayurveda. The philosophical background of Ayurveda should not be looked upon as belonging to a particular, race, culture or religion but should be

¹Caraka.Vi.8-14

appreciated for it's universal and scientific character.

Ayurveda states that during one's life the mind (manas) exists as an abstract entity, controlling all activities of the body and itself. It's moods change now and then. By itself it is insentient but becomes active by receiving the cosmic power. This power is known as the soul (purusha). In Ayurveda the soul is also called karmapurusha, because the soul (purusha) reaps the fruits of its past and present actions (karma). Ayurveda thus accepts the concept of transmigration of the soul, rebirth and the karma theory. Here karma means the past actions that leave an impression on the mind just as a seed manifests after sometime when it comes in contact with fertile ground. This part of Ayurveda originates from vedanta philosophy.

Life is the state of existence formed by the combination of the body, sense organs, mind and soul.² The mind (manas), intelligence

²Caraka. Su 1-42

(buddhi), ego (ahankara) and soul (jiva) constitute the sukshmadeha or subtle body, while the five proto-elements (pancamahabhutas) sky, wind, fire, water and earth form the gross body and serves as the abode for the enjoyments and sufferings of the living being. The thesis of the formation of the proto- as well as the subtle elements is influenced by philosophical systems of sankya (evolutionary concept), nyaya (defining reality by deductive argumentation) and vaiseshika (critical materialistic analysis of reality).

The principles of yoga such as certain postures (asanas) to strengthen weak organs, breathing exercises (pranayama) or meditative practices (dhyana) to calm a disturbed mind or progress in spiritual life are also made use of in Ayurveda.

1.1 Balancing the Elements

The most simple and complex thesis of Ayurveda is based on the fact that

everything in nature including ourselves consists of the same building blocks, the proto-elements. Too much or too little of any of these substances may disturb the natural equilibrium of our organism and eventually lead to disease or decay. The general rule is, that adding elements which are of opposite qualities to the disturbed elements will restore the homeostasis or healthy balance. (Table 1)

This sounds amazingly simple. In fact, it is quiet easy to maintain good health by following this principle. However, in diseased conditions it requires great skill of the physician to analyze the exact state of the elements and to apply a therapy which does not cause any unwanted effects. That is why a physician has to invent a specific course of treatment which may differ in each and every patient. The advice given in this Vademecum consists of a general outline and practical examples - just as in a student's textbook of mathematics some formulas are given. That is not

to say, that those formulas offer a solution to every mathematical problem. Similarly, a good physician must apply his skill and knowledge to invent an individualized course of treatment for every single patient.

1.1.1 Pathophysiological Factors (Dosha)

The doshas are the result of the combination of the proto-elements with "bios" or life. The smallest, relatively independent biological unit is the cell. It possess the ability to move, metabolize and store which in Ayurveda is represented by vata, pitta and kapha respectively. As they hail from the five original elements, they inherit their respective qualities. They ideally should be in a state of balanced function that denotes perfect health. If any one, two or all three of them are found in a state of hyper- or hypofunction, pathological processes will develop. The reduction from five factors (proto-elements) to

three factors (doshas) simplifies the task for the physician. Besides, the doshas when in a well balanced stage can be associated with certain physiological functions. Hence the name pathophysiological factors. (Table 2 to 4)

A very good example to understand how qualities (gunas) can influence the pathophysiological factors (doshas) positively or negatively is the following: A glass of hot water is obviously hot, liquid and moist. These are most antagonistic to the qualities of vata and to a lesser degree to the ones of kapha. Hence the glass of hot water will reduce vata very significantly and kapha to a lesser degree. The very same glass of water, when cold will reduce vata to a much lesser degree while kapha will be provoked by it. In other words, a glass of ordinary water be it hot or cold can act as medicine or provoke disease.

Table 1

Proto-Elements Pancamahabhutas	Attributes Gunas	Effects in an object
ETHER	light, soft, minute, smooth	Provides lightness, penetrability, softness
AIR	cold, dry, light, minute, rough	Provides movement, activity, lightness, roughness, drying
FIRE	hot, keen, minute, light, dry, clear	Provides digestion, luminescence, heat
WATER	liquid, oily, cold, soft, slimy, mobile	Provides lubrication, humidity, solving, sticking
EARTH	heavy, hard, gross, solid, compact	Provides stability, strength, growth, compactness

Table 2

<u>VATA</u> biomotoric force originates from Ether & Air elements	<u>PITTA</u> biometabolic force originates from <u>Fire</u> & water elements	<u>KAPHA</u> biomaterial force originates from Water & Earth elements
<u>Qualities:</u> Dry, cold, mobile, light, penetrating, clear, rough.	<u>Qualities</u> Slightly oily, hot, mobile, liquid, penetrating, sour, pungent.	<u>Qualities</u> Oily, cold, heavy, soft, sweet, slimy.
+ Hyperfunction	+ Hyperfunction	+ Hyperfunction
= Balanced Function	= Balanced Function	= Balanced Function
- Hypofunction	- Hypofunction	- Hypofunction

1.1.2 Functions of Vata

Sensory System	Central Nervous System	Motor System
<i>Input of Information</i>	<i>Processing of Information</i>	<i>Output of information</i>
PRANA VATA	PRANA & UDANA VATA	VYANA VATA Sympathetic System
		SAMANA VATA Parasympathetic System
		APANA VATA Lumbosacral Outlet

1.1.3 Functions of Pitta

Primary Metabolism	Formation of red blood corpuscles	Formation of neurotransmitters	Formation of retinal pigments	Formation of skin pigments
PACAKA PITTA	RANJAKA PITTA	SADHAKA PITTA	ALOKAKA PITTA	BRAJAKA PITTA

1.1.4 Functions of Kapha

Formation of extracellular liquid	Formation of gastric mucus	Formation of cerebrospinal liquid	Formation of saliva	Formation of Synovia Collagen
AVALAMBAKA KAPHA	KLEDAKA KAPHA	TARPAKA KAPHA	BODHAKA KAPHA	SLESHAKA KAPHA

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1.2 Biological Fire (Agni)

There is no basic difference between physical and biological fire or agni, except that agni is associated with living organism. It's main function is to disintegrate food into the simplest possible components fit for absorption by the body.

The concept of biological fire are two:

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| <ul style="list-style-type: none"> • Agni: (13) jatharagni (1), bhutagni (5), dhatwagnis (7) • Pitta: (5) pacaka, ranjaka, sadhaka, alocaka, bhrajaka |
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Site and function (anatomical and physiological) except in jatharagni and pacaka pitta differ. Agni covers a wider range: physical, chemical and biological. Pitta is only related to living organism.

Out of 13 agnis much importance has been attributed to jatharagni (synonyms: kayagni, pacakagni, koshtagni, antaragni, audarya tejas). Kayagni denotes the role in pathogenesis and treatment. All disease can be attributed to a deficiency of agni. On the other hand, all disease can be controlled as far as reversible by agni.

The body is the product of food. Disease occur as result of faulty nutrition. The distinction between pleasure (health) and pain (disease) arises as the result of difference between wholesome and unwholesome diets.³ Agni being the factor responsible for the conversion of foods into dosha, dhatu and mala deserves detailed consideration.

1.3 Formation of Body Tissues (Dhatu)

The concept of sapta-dhatu forms part of the much wider concept of dosha-dhatu-mala. It refers to the physiology of basic nutritional and structural factors of the body. The term dhatu means to support and to nourish. Susruta has defined it as "that alone which supports the body is said to be dhatu."⁴

The three doshas are spoken of as dhatus, as they support the body in their normal states of functioning, whereas sapta-dhatu are not only supporting but also nourish the body. Sapta-dhatu are also known as dushyas, because of the tendency in them to vitiate. Both doshas and dhatus in their abnormal states are sometimes spoken of as malas.

³Caraka: Su. 25: 29

⁴Sushruta; sutra 14; 20

Sapta dhatus already exist as concrete formed entities. They are constantly being formed, destroyed and reformed, maintaining a state of dynamic metabolic equilibrium. Dhatus are of two types:

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| • Precursor nutrients (ashtayi dhatus) that support the existing tissues (shtayi dhatus) |
| • Existing tissues (shtayi dhatus) that support the body |

The term dhatu signifies the nutrition as well as the dhatus themselves. It envisages the specific precursor nutrient substances for the use of already existing formed and stable dhatu. There are seven basic divisions:

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| 1. rasa-dhatu (plasma, interstitial fluid & lymph) |
| 2. rakta-dhatu (elements of blood-erythrocytes) |
| 3. mamsa-dhatu (muscle-tissue) |
| 4. medo-dhatu (adipose-tissue) |
| 5. ashti-dhatu (bone-tissue) |
| 6. majja-dhatu (marrow-tissue) |
| 7. shukra-dhatu (elements of reproductive-tissue) |

1.4 Identification of psychosomatic constitution

Depending upon the relative predominance of the three pathophysiological factors (dosha) the psychosomatic constitution of an individual may be divided into seven categories namely vatika, paittika, kaphaja, vatapittaka, vatakaphaja, pittakaphaja and samadoshaja. All measures of preservation of health and cure for disease are based on the consideration of the constitution of an individual. The constitution is considered to determine the susceptibility to different diseases, their progress, pattern, possible complications and the over all prognosis. It determines the individual's response to a particular therapy.

The test below is meant to identify the psychosomatic constitution. However, one should take into consideration that the test result can be influenced by the abnormal condition of one or more doshas at the time of answering the questionnaire. For treatment purpose this suits us fine, as we want to normalise these disturbances. If you are healthy, the outcome of the test should be your psychosomatic constitution.

For obtaining the test result you should honestly answer the questions by ticking the statement suiting you best. After answering all the questions you should add the marked sections in all the columns.

1. If you obtain the highest score in column 1, you are of vatika constitution.
2. If you obtain the highest score in column 2, you are of paittika constitution.
3. If you obtain the highest score in column 3, you are of kaphaja constitution.
4. If you have an evenly high score in column 1 and 2, you are of vatapaittika constitution.
5. If you have an evenly high score in column 1 and 3, you are of vatakaphaja constitution.
6. If you have an evenly high score in column 2 and 3, you are of pittakaphaja constitution.
7. If you obtain an evenly high score in all three columns, you are of samadoshaja constitution.

I. Physical Characteristics

Subject of Study	Column 1	Column 2	Column 3
BODY	thin, prominence of veins	medium, delicately shaped	well developed & formed
SKIN	dry & cold	smooth & warm	soft, moist & cold
HAIR	thin & dry, less	thin & silky, balding	thick, soft, dense
NAILS	thin, cracked, oblong	thin, smooth, oblong	thick, smooth, regular
EYES	unsteady, dry, narrow	unsteady, moist, medium	steady, moist, wide
TEETH	irregular, varying sizes	regular, medium	regular, large

II. Physiological Characteristics

APPETITE	variable	strong	regular to moderate
DIET	irregular & high intake	irregular, maximum intake	regular, lesser intake
LIKINGS OF FOOD	light, warm, sweet	sumptuous	hot, bitter, sour
DIGESTION	poor	quick	moderate to slow
THIRST	lesser	maximum	less
STOOLS	dry, hard, constipated	soft, yellow, loose	regular, bulky, fatty
MICTURITION	less	more	lesser

SWEAT	less	profuse & smelling	medium
SPEECH	low, chattering	pitched, self conscious	eloquent, moderate
SLEEP	disturbed	medium	sound, prolonged
SEXUAL BEHAVIOUR	extreme or poor	moderate	strong
WEIGHT	lowest	medium	maximum
HEIGHT	maximum	medium	minimum
III. Psychological Characteristics			
MEMORY	short	good	best
MENTAL GRASP	fast	good	slow
WILL POWER	least	good	maximum
MENTAL STABILITY	unstable	medium	maximum
CONFIDENCE	least	medium	maximum
TOLERANCE	least	less	maximum
IV. Biochemical Characteristics			
BODY FLUID	minimum	medium	highest
ELECTROLYTE	minimum	medium	highest
SOLID MASS	minimum	medium	highest
V. Characteristics of Pulse			
RATE	increased	medium	slowest
VOLUME	small	medium	more
PERCUSSION WAVE	smallest	longest	medium
SUMMIT	conical	sharply conical	rounded
PULSE DIAGNOSIS	moves like snake	jumps like frog	moves like swan
Result:			

Scope of Ayurveda

A Y U R V E D A		
Primary Function as a Health Science	Secondary Functions as a Healing Science	
AYURVEDA MEDICAL SCIENCE		
IRRATIONAL	RATIONAL	SUBTLE
Faith Healing	Medical Science	Ritual, meditation, color-, music-, gem-,magneto therapies, etc.
Nutrition	Medicine	Lifestyle
<p style="text-align: center;">Medicine without Medication</p> <ul style="list-style-type: none"> • Physical therapies • Physiotherapy • Psychology 	<p style="text-align: center;">Medication & Surgery</p> <ul style="list-style-type: none"> • Medication for internal use • Medication for external use <ul style="list-style-type: none"> • Surgery 	

As the subject means ayus and veda, it covers all that pertains to longevity. The founders of this science analyzed the objectives of human life and classified them into four categories, namely dharma (virtue or righteousness), artha (pursue for wealth), kama (sense enjoyment) and moksha (emancipation or freedom from birth and death). Man strives to achieve these pursuits knowingly or unknowingly.

Health is the basis of these four-fold objects. Because without it one will never succeed achieving them. In this way, a great impediment has arisen to man.⁵ To help the afflicted mankind to accomplish life's purpose, Ayurveda was taught. Bharadwaja, one of the original teachers of Ayurveda instructed his disciple in the science of etiology, symptomatology and therapeutics in the interest of the healthy and the ailing.

Ayurveda lays down what is congenial to life and what is not and what is wholesome and unwholesome

⁵Caraka. Su. 1-15, 17

to longevity. This science is regarded by the sages as the most meritorious of all sciences since it directs man to enjoy the good during this life and thereafter.

1.4.1 Holistic Nature of Ayurveda

Ayurveda's primary function is to keep in good health and prolong the life-span. Only secondarily it comes in handy as a medical science. It does not exclude any means by which a patient may regain his health. Sometimes a patient may just recover without a physician's involvement and contrary to the usual pattern of a disease. This is termed as irrational healing. The holistic nature of Ayurveda becomes very clear when we look at the table above, where we find nutritional & medical sciences as well as adjustments to lifestyle on an equal footing. The inclusion of psychological considerations into a therapy are most important. Ritual, meditation, music-, color and other therapies are becoming increasingly popular. They are not accepted by modern medicine as being of any use

<http://www.fvc.edu/articles.htm/> and often ridiculed. Ayurveda not only accepts them but makes widely use of them.

1.5 Diagnosis

There are three basic means of examining a patient and they have been shown to ascertain the nature of a disease. They are aptopadesa, pratyaksha, and anumana and can be explained as follows:

1. to possess a thorough knowledge of the theoretical exposition from the classical medical texts
2. to closely observe the patient's symptoms and signs and know his complaints along with interrogation
3. to infer on one's own previous clinical experience

Any lack in the three means results in faulty diagnosis. Hence, a fragmentary knowledge of the physician cannot lead to a right conclusion.⁶

Pulse diagnosis was introduced to Ayurveda by Sarangadhara in the 13th century. It has recently become

⁶Susruta Sr. 10.4

popular in Western countries. Even if somebody may be an expert in this particular diagnosis, we recommend to still conduct a proper anamnesis and to take the above mentioned points into consideration. A patient visiting a physician brings with him an existential problem. To quickly check his pulse and as quickly prescribe some sort of treatment will neither do justice to the patient nor satisfy him. It certainly could not be called a holistic treatment. Respect and concern for the patient and his problems are important elements of a successful practice.

Examination of urine by putting some drops of sesame oil in it or by leaving it outside to see whether ants will get attracted to it (that would indicate a high sugar level in the urine) may be helpful in an environment where modern laboratory facilities are not available. In the interest of the patient it may be advisable to take an expert's opinion or use modern diagnostic tools when really necessary.

1.6 Therapy

Shamana and shodhana are the basic forms of therapies in Ayurveda.

Shamana means the subsidence of symptoms and disease by palliative measures such as fasting, dieting, restriction of fluids, physical exercise, sun-bath and exposure to fresh of air or even a mild medication aimed at restoring the delicate balance of the pathophysiological factors (doshas).

Shodhana is the purification of the body by means of emesis, purgation, enema, insufflation of the nasal passage and blood letting. This sort of cleaning is also known as pancakarma or the five-fold treatment. Besides, there are many kind of shodana-drugs which are meant for the purification of the organism when pancakarma is not possible or indicated.

Other types of remedy are langhana and brimhana.

Langhana are therapies that reduce the bulk and are used in obese patients.

Brimhana are therapies implied if the patient is very lean and weak. They will increase the bulk.

The four pillars of treatment are prescribed as (1) the physician, (2) the drugs, (3) the assistant and (4) the patient.⁷ Each one of them should be endowed with four merits as described:

- The physician must have (1) studied the medical science under a learned professor and (2) gained practical experience, (3) possess skill to handle the patients and (4) purity of body and mind.
- The drugs must be (1) useful in many manipulations, (2) possess many properties, (3) potency and be (4) appropriate for use.
- The assistant, whether a male or female nurse, must have been (1) well trained in nursing the patients, (2) be skillful, (3) clean, and (4) affectionate towards the patients.

⁷Ashtanga Hridaya, Sutra 1. 26 to 28

- The patient must be able (1) to remember the instructions, (2) be courageous, (3) obedient to the physician and (4) possess the funds for his medical expenses.

Sometimes people think how an ancient medical system like Ayurveda can still have any relevance in today's modern world. I think, we greatly overestimate our current achievements, be they good or bad. Actually, we can see from the above statements, that nothing much has changed in the past 2500 years. Mankind is still plagued by the same sufferings of birth, death, old age and disease. Neither has our physiology or anatomy changed. The death rate is still at 100 %. - Everything that is born will die.

The principles of Ayurveda stand valid and provide a useful guide to good health and improvement in quality of life.

