

Module III

Ayurveda - The Traditional System of Indian Medicine.

Ayurveda is a Sanskrit word made of two terms Ayur + Veda
Ayur = life, Veda = knowledge.

It signifies knowledge of life.

It began in 3000 BCE, before common era. CE - common era instead of AD.
Indus period, Rig Vedic period, Jaina, Buddha period.

It derives its notions of Rig Veda and practices from Atharva Veda.

There are 4 types of Vedas

- 1) Rig Veda
- 2) Yama Veda
- 3) Yajur Veda
- 4) Atharva Veda
- 5) Ayurveda

Ayurveda is the Pancham Veda / Fifth Veda or, Upaveda (auxiliary veda)

It is an age old practice.

Difference between Ayurveda and Atharva Veda

- 1) It regards cause of disease
- 2) It regards treatment of disease.

According to Atharva Veda humans have diseases because of wrath of God and influence of other malefic supernatural agents.

According to Ayurveda humans have diseases due to the imbalance of bodily elements.

2) Treatment

- 1) appeasement of God and other supernatural beings
- 2) Applications of drugs / medicines, injections

VII Physiology of Ayurveda

The P of A is based on Samkhya & Vedanta philosophy of Vedic Hindu. They say that man is a part of cosmic existence and each individual soul is composed of mind, sense organs and material body. We get the material body after evolved out of the interaction of Purush (one who ever witnesses the truth, static) and Prakrti (dynamic but material).

Prakrti is a component of three gunas:

- | | |
|-------------------------|---------------------------|
| 1) Satva (Intelligence) | component
three gunas. |
| 2) Rajas (Energy) | |
| 3) Tamas (Matter) | |

Gunas	Colour	Nature	Result
1) Satva	white	Nectar (honey) Jey	
2) Rajas	Red	Intoxication	Pain
3) Tamas	Black/Dark	Poison	unconsciousness

Yamas is not bothered about anything.
completely indifferent people.

Material body in the form of gross body consists of

- 1) Kaya - protective layer of our body
- 2) Dhatus - component matter
- 3) Mala - eliminations or excretions
- 4) 3 Dosas - maintaining, sustaining, nourishing life principles.
- 5) Agni - digestive fire which helps in digesting food
- 6) Kriya - processes

Imbalance of any of the dosas leads to diseases in the body.

- 1) Pitta (bile)
 - 2) Kapha (Phlegm)
 - 3) Vayu (Wind) /风
- * 3 dosas correspond to 3 Bhutas of Panchabhuṭas.
- 1) Ptery substance
 - 2) Liquid substance
 - 3) Gaseous substance

Five Bhutas

Prithvi (Earth) Ap (Water)
Tejas (Fire) Vayu (Air) Akasa (Ether)

Legends about the transmission of Medicinal knowledge
Gods → Sages → Yogi mythological persons
Ashwin Brothers ↓

- 1) Pururavas Atreya → led to Medicine school of Ayurveda
- 2) Dhanvantari → led to the surgery school of Ayurveda.

There were 8 types of surgery.

8 categories were there dealing with diff types of treatment.

Ghanteras

Categories of Ayurveda.

There are 8 categories

- 1) Kayacikitsa 2) Kavumarbhitya
- 3) Salya tantra 4) Salakya tantra
- 5) Bhelavridya 6) Agada tantra
- 7) Rasayana tantra 8) Vajikarana

8 categories into which Ayurveda divides medical science

- 1) It is the treatment of diseases affecting over the whole body.
- 2) It deals with the treatment of females and children.
- 3) It deals with surgical techniques and extraction of foreign bodies.
- 4) It deals with treatment of diseases which affects our eyes, ears, nose, mouth etc (ENT) throat.
- 5) It deals with the pacification of possessive spirits, treatment of mental disorders etc.
- 6) It deals with treatment of poisonous cases like bites of poisonous snakes, herbal poisons etc. (poison from any herbs)
- 7) It deals with rejuvenation, prevention of diseases etc. (increase in life span, prevention of diseases etc.)
- 8) Means of increasing vital power, it increases the immunity of our body.

Ayurveda was created before man was created. Brahma → Daksh → Ashwin Kumar → Indra → Sage (Rishi / Monk) → Punarvati & Dhanvantara.

Full name of Dharmavantari was Divadar
He was king of Kashi

Two Principle texts on Ayurveda

- 1) Susruta Samhita (Father of Surgery)
- 2) Caraka Samhita (Father of Medicine)

- 1) Author
- 2) School
- 3) Reduction
- 4) Commentaries
- 5) Books (sthomas) (Editing)

1) Susruta Samhita

- a) Written in 6th century BCE
- b) Author is Susruta
- c) School is Divadar - Dharmavantari
- d) Reduction by Buddhist Scholar Nagarjuna
- e) SS becomes a Sutra. Sutra means a brief statement of anything in 2 or 3 lines. Editing by Nibandha - Langrasha by Dallana Carya
- f) There are 5 books
- 1) Nistra 2) Nidan 3) Sarira 4) Cikitsa 5) Shalya

There is a supplementary book on SS called Uttaratamtra. It deals with:

- a) Bhutavidya
- b) Latakyatamtra
- c) Karmakabhyutsya

Susruta Samhita is one of the most important book on Indian surgery. It gives a lot of information about surgery conditions in old India.

2) Caraka Samhita

Written between 2nd century BCE - 2nd century CE

- 1) Author is Caraka
- 2) This book is important for ^{ayurvedic} medicine

- in ancient India
- 2) Schools are Atreya School. (son of rsi Atreya)
 - 3) Reductions by Dridhabala
 - 4) The name of the commentary was not known since the pages were torn. Commentation is Giradala.
 - 5) Books are : a) Shweta b) Nidan c) Sarira
 - a) Chikitsa e) Kalpa f) Indriya g) Vimana
 - b) Siddhi

Other texts on Ayurveda

- 1) Agniveha Samtra by Agniveha
- 2) Bhela Samhita by Atreya himself.
- 3) Ayurveda - Dipika by Cakra panidatta

All the texts belong to Atreya school.

Ways of Inspection

There are 8 ways to inspect the patient.

- ~~1) Prastuti~~
 - 2) Kootra
 - 3) Rasa
 - 4) Ghritra
 - 5) Sabda
 - 1) Nadi (Pulse)
 - 2) Mala (Stool)
 - 3) Sabda (Sound)
 - 4) Urna (Vision)
 - 5) Mostra (Urine)
 - 6) Ghritra (Tongue)
 - 7) Sparsha (Touch)
 - 8) Akaruti (Appearance)
- Write both the name and Sanskrit

Treatment in Ayurveda.

The factors on which Ayurvedic depends:

- a) Purusha (Patient)
- b) Vyadhi (Disease)
- c) Oshadhi (Medicines)
- d) Kriya (Processes)

e) Kala (seasonal and climate factors as well as time and frequency of medicine to be applied or administered)

There are no side effects. But people do not go for it because it is a lengthy process and the person has to give up eating many food.

Osadhi (Medicines)

- 1) Those that cures the patient
- 2) Those that gives strength to the patient

Antibiotics just suppress the disease, it will come back again.

Sources from where Ayurvedic Medicines are derived.

- 1) Plants
 - 2) Animal products (milk) (^{dead} bones of animal)
 - 3) Minerals
- 2) e.g. bear deer skin / flesh
3) Gold is good for health.

Basis

Ayurvedic medicines are compounded with basis like Ghrita (clarified butter) or, ghee, taila, milk, water, oil,

Ayurvedic medicines are to be administered to the patient, after taking full consideration.

- a) Patient's age
- b) digestive power of the patient
- c) his blood condition
- d) state of 3 dosas
- e) Physical condition of the patient.

Kriya (Processes)

- 1) Dhana - intake of food. Patient should not be given oily and spicy food. Food should be given depending on his constitutional elements (light food)
- 2) Acarā - right conduct. Hygiene should be maintained.
- 3) Samsodhana - Rectification of deranged dosha (imbalanced dosha)
 - a) Blood letting
 - b) Use of emetic (kind of medicine which helps to vomit out) (forced vomiting out the diet prescribed by doctor)
 - c) Fasting (liquid diet) eg fruit juice and ^{ayurvedic} messaging to the patient.
- 4) Samsamana - Medicines to be given to neutralise the dosha.

3 Stages of surgical process

- 1) Purvakarma (Preparatory measures)
- 2) Pradhanakarma (Principal measures)
- 3) Parat Pkarma (Post-operative ")

- 1) Light food should be given to the patient before and after surgery. All the surgical instruments should be kept ready (sterilisation). Patient should be felt comfortable.
- 2) This stage consists of surgical operation. Extraction of morbid matter, bandaging etc.
- 3) Application of medicines of herbal based on the operated part, bandaging the operated part. This stage is very important. It relates to healing.

8 principle type of surgery (There are 8 types in total)

- 1) Chedama (Excision)
- 2) Bhedama (Incision)
- 3) Lakshana (Scraping)
- 4) Vedhama (Puncturing)
- 5) Esama (Probing)
- 6) Arakhamma (Extraction)
- 7) Viiramama (draining of fluids)
- 8) Livama (Suturing)

1) Excision is something, an act of removing from the body part, e.g. a tumour is witnessed in the brain. In that case excision the ~~is~~ e.g. excision of the brain tumour is essential which otherwise close the leakage sending air into the brain to close the leak.

Excision of the brain tumour to close the leak that was sending air into the brain was essential. (no force)

2) Incision is a surgical cut in the human body.

3) Scraping of the skin (for testing or if that part of skin has some infection).

4) Probing is examining the patient by hand or by instrument.

5) Puncturing is making a surgical hole in the human body.

6) It is taking out something from the ^{human} body by applying force. (Extraction)
e.g. extraction of rotten tooth.

Lavative - medicine for cleaning the bowels for patients having constipation

- 7) A device by which a channel or open area may be established for exit of fluids from a cavity, wound or infected area.
- 8) Suturing is bringing two surfaces of the skin together and doing a surgical stitch.

For every herbal plant read two benefits

Medicinal Herbs (no scientific names)

Name	Part used	Beneficial uses
1) Amla	Fruit	Vit C, Cough, cold, Lavative, Hyperacidity, Diabetes

2) Brahmi	Whole plant	Memory Enhancer, Diabetes , Mental disorders
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3) Chiraita	Whole Plant	Skin diseases, burning sensation, fever.
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4) Tulsi	Leaves	Cough, cold, Expectorant
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Expectorant - It is a type of cough medicine which is used to make the thick liquid less thick in the lungs of the person.

5) Vringraj	Seeds, whole plant	Anti-inflammatory, digestive, hair tonic.
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Inflammatory - rashes, swellings, gurgles

For plants → read from the material, one part, use.

Architecture, ship building, international trade, mining and agriculture in ancient India.

People in ancient India were well versed with architecture, eng and technology. Justify. Proof

Yes, people of AI were very well versed with

- 1) Remains of Hohendaro ^{Holmijo-daro} and Harappa
 - 2) Literary sources like Kautilya's Arthashastra
 - 3) Religious monuments like Buddhist stupas, Lingraj Temple
 - 4) Historical monuments like Ajanta & Ellora, Taj Mahal etc.
- laurite according to books

Indus Valley Civilization

Bronze age. The main metal that was known to the people was bronze. Iron was not at all known.

Two imp centres - Mohenjodaro & Harappa

{ Mohenjodaro & Harappa - in Pakistan MC
Lothal in Gujarat
Kot Diji in Rajasthan
& centres

IVC was an urban and highly advanced civilization.

Features

- 1) Wide paved roads were there.
- 2) Houses were made of well-burnt bricks and most of the houses were two-storeyed.
- 3) A typical house consisted of a typical central courtyard with 4-5 living rooms and

- all the basic sanitary facilities.
- 4) A sewage pipe from every home was connected to the main drain/public drain & in the streets and this sewage pipe was properly covered.
 - 5) Use of pulley wheels for drawing water from the wells was known to them.
 - 6) They had the idea of weights and measurements.
 - 7) Many ^{weight scales} made of bronze, ivory, shell were discovered.

Impressive Structures

- 1) Great Bath at Mohenjodaro
- 2) Great Granary at Harappa
- 3) Marine architecture at Lothal.

- 1) It was a public water tank in A.T.
- 2) On each side the pool is a raised flight of steps surrounded by rooms all around it.
- 3) The bath was considered to be a religious bath.
- 4) Granary ~~was~~ is.

Granary was situated in a Citadel area (higher position to the city). The function of the granary is to store the excess grain. Attached to the granary is a courtyard with rooms which housed the slaves or the workers to thresh the corn or on the ground of the granary.

Marine architecture was a well defended flood mechanism. The dock was situated off the main stream to avoid flooding and silt.

During high tide they used to close the dock.

Literary sources, Kautilya's Arthashastra

It throws light on 4 perspectives:

- a) Town planning
i) Different chapters talk about the construction of the royal buildings and houses for the different categories of citizens.
ii) Roads of different dimensions have been prescribed for different purposes.
iii) Layout and organisation of ports have been described in a meticulous way.
(in a detailed manner)

b) Ship-building activities

- i) The mara dhyaksa was in charge of navigation in the ocean along with the port cities. (Nara + Adhyaksa)
(captain of the ship)
- ii) Vessels (ships) were made of bamboo, timber and inflated leather bags.

c) Mining

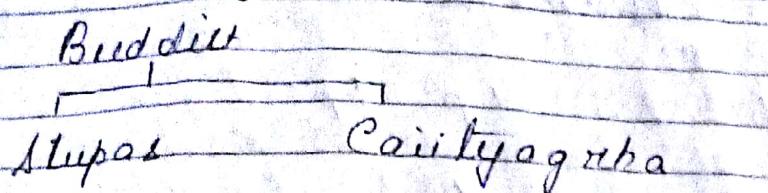
- i) Different chapters of Arthashastra captures in details issues like gem testing, mining equipment, mineral handling etc.
- ii) Both underground and surface mining are discussed.

d) Agriculture

- i) Regarding the use of manure, Arthashastra gives importance to bones of dead animals and cow dung.
- ii) The fertility of the soil should be maintained by ploughing the field at least three times during heavy rains.

read only this

Religious Monuments in Ancient India



Stupa is a mound like hemispherical structure which generally contains the remains of ^{relics} Buddhist monks and nuns.

Buddhism never believed in image worship.
eg Sanchi Stupa in Madhya Pradesh.

Caiityagruha is a stupa cum sanctuary (it is a shelter for someone or something). It is a prayer hall attached to the stupa. eg. Vishvakarma caves at Ellora in Maharashtra.

Hindu Monuments

5 common structural principle
The structural on the basis of which all the temples of ancient India were constructed are as follows:

- 1) A square shaped sanctum (garbagruha) for the image. (Everyone cannot enter there, it is very pure)
- 2) A small pillared porch (latin word derived from porch) It is an entrance to the building. (mukhamandapa)
- 3) A covered circumambulatory passage (pradakshinapath) around the image. Circum → around / centre. Drakshati → walking. It means walking around an auspicious object or an image - etymological meaning)
- 4) Early temples had flat ~~to~~ roofs. spire

type (shikharas) came up later
5) Early temples were made of stones.
Use of bricks came much later.

North Indian style of temple was known as Nagara. Nagara type of temple is of the form of vaulted roof shikharas and wide linear in elevation curve with four lines eg. Rajarani temple & Lingraj temple

South Indian style of temple was known as Vimana or Gavida. It was like a pyramid having pyramidal shikharas eg. Kanchipuram Temple in Tamil Nadu.

Rajarani Temple called the Love Temple of India, in Odisha. It has beautiful pictures of King & queen.

Ship building & Sea Voyages

1) Archaeological finds

India had great relations with Egypt, Persia, Sumen, Central Asia.

1) Excavations in Lothal hints at the existence of a huge dock in ancient India.

2) Seals discovered in Narappa depict the images of ports, ships and anchors meant for the deep water sea anchor is something which helps the ship to sail.

2) Indigenous literature

The literatures of our own country, compiled and written in India.

Documents

The documents are:

- a) Rig Veda
- b) Arthashastra
- c) Itihasa
- d) Digha Nikaya
- e) Mahavamsa
- f) Yuktis-Kalpataru.

a) Rig Veda gives a detailed information on merchants who went to ~~different~~ distant countries through water on the pursuit of wealth.

Type of vessel is Plova. It was meant for deep water use and can batter any storm.

b) a) Sammo b) Sammo → Arthashastra

c) ~~Shabda~~ It is a book on Linguistics written by Panini. (It was written in Pali language) can write ships were designed on the base of 2 factors:

a) Whether the journey is to a distant country or to a nearby island. ~~ancient~~ distinction is made between ~~ancient~~ Ocean cargo and coastal ^{nearby} island cargo.

e) Digha & Nikya - Buddhism is divided into 3 texts: Sutta → further divided into Nikyas. ~~It~~ It says mostly made use of birds to ascertain direction compass were not available.

f) Mahavamsa - the great chronicle. Chronicle is a sequence of facts which occurred in that sequence only without starting from childhood. Mahavamsa is writing narrating the conquest of Sri Lanka by the King of Bengal Vijay Sinha. Sri Lanka was turned into Sri Lanka.

They made their voyage to Sri Lanka by sea only. (Ans)

f) Yukti - Kalpataru is attributed to King Bhoja of Malwa. This book talks about a special kind of wood known as Khatriya wood which is best suited for making vessels. It divides ships into two categories:

- 1) Samanya for inland river traffic
- 2) Visesa for sea vessels. (Special types of ships constructed for distant voyages)

3) Regarding the no of masts of a ship. Mast is a tall upright pole in a ship which helps to make the sail of the ship smoothly possible.

- * 1) The ship with 4 masts should be white in colour
2) 3 masts - red
3) 2 masts - yellow
4) 1 mast - blue in colour

No of masts depends on the size and configuration of ship.

4) Indian shipbuilders used to decorate their ship with the help of gold, silver, copper. Figures of many animals and celestial figures were carved on the body of ship.

Accounts of foreign travellers in Ancient India

- a) Megasthenes
- b) Pliny
- c) Arrian
- d) Abu Fazl
- e) Thomas Bowrey,

1, 2, 3 → Greek travellers

Megasthenes book - Indica. Arrian never physically visited India.

Megasthenes and Pliny visited during Mauryan Period.

Pliny (the Elder) visited India.

(1,2) They gave us information on ship cons, diff categories of ships, ship voyages which were made.

3) Arrian gives us information about a tribe called Xathori (He wrote Indika) differentiated from Megasthenes. Xathori special made a special kind of earu (to fasten the boat). The tribe of Xathori helped Alexander to carry his fleet army down the Indus river.

4) Abul Fazl wrote Ain-i-Akbari devoted to Akbar. Akbar had a very well maintained naval department and ships were constructed in such a way that they would go to distant voyages.

5) Thomas Bayley is an English merchant, sailor, traveller who visited India during 1669 - 1679. He said about the ship building activities and construction of different ships in India during that period.

To give accounts of Indigenous travellers, foreign travellers etc.

6) Takshila - the capital city of Gandhar. It was main epicentre for International trading. b) Bactria was a hub for Indian goods, located in central Asia. These two were land routes.

The important items of International trade

- 1) Spices (pepper, ginger, cardamom, cinnamon) were the centre of attraction
- 2) Diamonds 3) Sandalwood
- 4) Indigo (dye from tropical plants)
It was another imp material of export after spices.

Mining.

Existance of geological literature has many references to ancient mine workings encountered in course of field work. The most famous were:

- 1) Baragunda and Maibani Copper mine (Singhbhum) situated in Jharkhand
- 2) Lingundala copper mines (Jhunjhuni) in MP
- 3) Copper workings in Kulu in HP

People in ancient India had idea of different types of metals like gold, silver, copper, tin and lead.

Evidence of mining is circumstantial.

Literary sources were: (on mining)

- a) Kautilya's Arthashastra
- b) Abul Fazl's Ain-i-Akbari

b) There are references to mines of gold, diamond, copper and lead. These mines existed in ancient India according to A. F.

* The mining existing in ancient India is known from the fact that the geologists have encountered very ancient mines which date back to 1200 BCE. Mines were

- 1) Nelli gold mines in Karnataka (both dated back to 1200 BCE)
- 2) Dariba copper " Rajasthan to 1200 BCE

What were the two most ancient mines?

Agriculture

Agriculture was the cornerstone of the Indus Valley Economy.

Types of crops and fruits cultivated:
wheat, barley, peas, date, melon.

Rig Veda mentions the following activities:

- 1) Sowing the seeds by means of a plough (drawn by 6, 8, or 12 oxen)
- 2) Use of manure and importance of irrigation.
- 3) Conservation of rain water and digging of wells.
- 4) Rotation of crops in a particular land and following to restore the fertility of the soil.
- 5) Use of sickle to cut the ripe grain and binding it in bundles.
- 6) Beating the harvested crop on the floor of the granary to separate the

grain from the straw.

Crop rotation is done so the soil fertility is not destroyed.

Following - ploughing without sowing of seeds.

Yajur veda Taittiriya Samhita talk about the diff types of agricultural seasons, according to which we are going to plant the crops.

These were the pre-Vedic Period.

Post Vedic Period.

Post Vedic period provides more detailed information on all its important aspects.

- 1) Land and Soil
- 2) Manure
- 3) Village
- 4) Crops and Seeds
- 5) Irrigation
- 6) Protection of crops from pests and animals.

Making the land fit for sowing of seeds is tilling.

Panini divides land and soil to 3 types:

- a) Cultivated land
- b) Waste land
- c) Pasture (Yockara) Grazing land

Divides and Caraka divides land into 3 types:

- 1) Gangala (Barren) land,
- 2) Antipa (Moist)
- 3) ~~3)~~ Ladhakana (Ordinary) for transport activities

Manure

- 1) Arthashastra
- 2) Agni Purana
- 3) Bharat Samhita

All the 3 gives imp to manure in the form of excreta of animals, caudal bones of dead animals and so on.

- 3) Village means removal of stones, thorn and weeds before the sowing of seeds. Arthashastra says that during heavy rains land should be ploughed at least 3 types.

Mahabharata talks about the use of oxen for ploughing the land but before ploughing the land should be ready in the sense that all the stones and thorns should be removed.

There are some of the factors which has to be taken into account while farming.