

UNIT-5

Ayurvedic system of medicine

Definition → Ayurveda can be defined as a system, which uses the inherent principles of Nature, to help maintain health in a person by keeping the individual body, mind and spirit in perfect equilibrium with Nature.

Meaning of Ayurveda → Ayurveda is a Sanskrit term made up of word 'ayus' and 'veda'. Means

- Ayus means life and veda means knowledge or science. The term Ayurveda thus means the "knowledge of life or science of life". According to ancient Ayurvedic scholar Charaka, 'ayu' comprises the mind, body, sense and the soul.

Origin of Ayurveda → widely regarded as the oldest form of health care in the world, Ayurveda is a medical system that originated in India thousands of years ago. The fundamentals of Ayurveda can be found in Hindu scriptures called the Vedas, the ancient book of wisdom.

- The Rigveda, which was written over 6 thousand years ago, contains a series of prescriptions that can help humans overcome various elements.

Branches of Ayurveda

- ① Medicine - Kya.
- ② Surgery - Shalya.
- ③ Surgery of head and neck - Ghana.
- ④ Paediatrics - Bala.
- ⑤ Toxicology - Agada Tantra.
- ⑥ Psychiatry - Buth vidya.
- ⑦ Geriatric - Rasatyana.
- ⑧ Sexology - Vajekarana.

Aim and objective of Ayurveda

- ① To achieve positive health for the individual (maintenance and promotion of health).
- ② Prevention and treatment of disease.

• Some aims of Ayurveda can be categorised as -

- ① Treatment of diseases.
- ② Promotion of ideal constitution.
- ③ Improving the qualities of tissue.
- ④ Improving quality and strength of mind.

Basic Principles of Ayurveda

• Ayurveda is based on the premise that the universe is made up of 5 elements, air, water, fire, earth, & ether.

• These elements are represented in human by 3 "doshas" (energies), vata, Pitta, and Kapha.

• When any of the doshas accumulate in the body beyond the desirable limit, the body uses its balance.

- A healthy person, as defined in Sushruta Samhita, one of the 1^o works in Ayurveda is "whose doshas are in balance, appetite is good, All tissues of the body and All Natural urges all functioning properly and mind and body spirit are..."

Principles Basic Principle of Ayurveda

Comprises trigonas →

3 fundamental universal energy - satva, Rajas, tamas.

② The Panch Mahabhutas → 5 Basic elements
Akash (space) wind (air), Tejo Agni (fire),

201 (water) and Prithvi (Earth).

③ • The 3 doshas the 3 body humors vata, Pitta

④ • The Sapt dhatus - 7 kinds of Body tissue,
Rasa (fluid) dhatu (Rasa dhatu) Rakt
(Blood dhatu) Mansa dhatu, Meda (fat
dhatu), Asthi dhatu, Majja dhatu
and Sukra dhatu.

⑤ • The trigosa agni Trayodasa Agni - 30 types
of digestive fires - Jatharagni (gastric
fire), sapta dhatvagni, Panca Bhuragni.

⑥ The trimalas → 3 types of body wastes -
Purisa (faeces), Mutra (urine) & sveda
(sweat)

The Tridosha theory → The Ayurvedic

understanding of the universe is based on a 3 fold system called Tridoshas

The five elements integrate into physical form as the three doshas. Every one is a unique combination of 3 doshas

K/a Vata, Pitta and Kapha.

- vata, Pitta and Kapha are found in every cell, tissue and organ in different degree.

your distinct Prakriti or individual constitution established by pulse diagnosis observation and personal health history.

- These are imp. step to understanding your basic quality, tendency and needs, there are 7 constitutional types vata, vata/Pitta, vata/Kapha, Pitta/Pitta/Kapha, Kapha, vata-Pitta-Kapha (Tridoshas)

• The doshas →

① Vata is composed of ether and air elements.

- vata is responsible for movement in the body and mind. Balanced vata produces flexibility and a balanced mind. out of balance vata is fearful and nervous.

• Pitta is composed of fire and water.

Pitta functions are associated with the digestive process metabolic activity and body temp.

Balance Pitta leads intelligence and leadership. out of Balance Pitta is itself as anger and Jealousy.

③ → Kapha is composed of air and water. Kapha correspond to the building up of body tissue and store substances. Kapha lubricates, moisten and maintainance hummunity. Balanced Kapha is luff and for giveness. out of Balanced Kapha is associated with attachment and Congesment.

• Tridosha is comprises all tridosha vata, Pitta and Kapha.

Ayurvedic syst

Homeopathic → Cause of Disease itself can be used for its treatment Based on the law of Similars "like cure like"

• Choice of drug depends on symptoms and condition of patient.

• Drug extract are used with sufficient dilution

eg → Spical, ergot, Nuxvomica, Colchicum, $CaCO_3$, Barium Carbonate, H_2O_2 , $CaPO_4$, S, Cu, Al and P.

Siddha system of medicine → Based on

Siddhas → Shiva (male) and Shakti (female)

Siddha.

• following symptom are seen in patient.

• urine examination.

• Pulse

• color of Body.

• voice study.

• Tongue Condition.

• Digestive system Condition.

eg → Ethī - Strychnos, Nuxvomica.

Gomathai - Datura, stramonium.

Alawi - Nerium.

Abini - opium.

Ratha Potam - Aloe.

ancient system of medicine → Based on 2
theory

①, 4 humours → Blood, Phlegm, Black bile,
Yellow bile.

② 4 quality → ~~was~~ hot, ~~cold~~, moist, dried.

• Responsible to treatment disease not its symptoms

eg → Kulthi, Gilō, Kababchini, siyah.

ASAVA & ARISTHA

• Asava & Arishta are the Ayurvedic dosage
form process by soaking the drugs in powder
form / decoction form, in a solⁿ of sugar or
Jaggery for a specific period of time to
undergo fermentation.

The diff. b/w Asava and Arishta is simple
Arishta is prepared from the decoction of
medicinal herb while Asava is prepared
from fresh herb

Prepⁿ → fermentation for At least 6 months
for Asava and fermentation is allow
to go on for a period of (7 to 10) days
in hot weather and for (15 to 30) days in
cold weather for Arishta.

Prepⁿ → powdered me drug.

Asava
powdered drug.

Arishta
decoction of powder.

Transferred to fermented vessels.

Solⁿ of sugar, Jaggery or honey ~~are added~~
(heated to dissolve).

close the earthen lid sealed ^{edge} with clay
smared cloth.

fermented at constant Temp.

set a side to settle down matter.

fluid decanted and filter.

boil _{to} avoid further fermentation
filled with bottle and sealed.

- * The Proportion of the diff. ingredient are
 - water 32 seers (1024 tolas, 16000 g)
 - Jaggary 12.5 seers (400 tolas)
 - Honey 6.25 seers (2000 tolas)
 - Medicinal substances (such as root, leaves or bark etc of Plant cut into pieces - 1.25 seers (40 tolas) in powder or decoction.

Introduction

Asava are medicinal, spiritus like ~~with~~ while Arishta are weak alcoholic prepn.

When raw vegetable juices are used for fermentation, the resulting fluid or liquid is called as Asava.

* In other words Asava are weak alcoholic prepn prepared by the infusing the drug in cold water and allowing to undergo fermentation with the help of raw sugar or honey.

Prepn

• The basic drug from which the extract is to be prepared are first:

• cleaned and ~~or~~ rinsed in water to get rid of dirt.

• In case of fresh plant they are cleaned, pulvalised and pressed for collection of Juice.

• If the drug is dry and to be used in the prepn of Asava it is loosely crushed and added to water to which the prescribed

Arishta
decoction
and

→ quantity of Honey, Jaggery and sugar are added.

• If it is an arishta, a decoction is obtained by boiling the drugs in the specified volume of water as given in the recip.

• The water use should be cleaned, clear and potable. When the extract are obtained, the sugar, Jaggery and Honey are added and completely dissolve.

• The sugar, Jaggery and Honey should be pure. The Jaggery to be added should be very cold (Prapurna) b/c fresh jaggery aggregate Kapha and suppressed the power of digestion.

• The flavouring agent Cloves powder added to the sweetest extract

Properties → should be clear.

No foam should be produced.

• Should not become sour on standing

• It has characteristics, Aromatic and Alcoholic odour.

• during fermentation, Alcohol is produced which facilitate, extraction of active constituent contain in the drug.

• Alcohol also serve as preservative in the product.

• Shelf life much longer time.

Storage condition → Should be stored in
Air type container.
Narrow mouth.

- Stored in a cool place.
- Away from light.

Advantage of Asava and Arishta medicines

Self life → Self life of Asava and Arishta are upto 10 year (related expiry dates of Ayurvedic medicine).

- While other Ayurvedic medicine forms like Kashayam, tablet etc. cannot be stored for very long time, Asava and Arishta have considerably will be high

Taste → Asava and Arishta are best tasting Ayurvedic medicine, Avalehas (herbal Jamun like Chyavanprasa) are also equally good taste.

Transportation → If they are prepared properly, they do not get spoiled/contaminated during transportation such as spoilage may happen in case of Kashayam (water decoction) churn herbals powder etc.

Appreciation → b/c of colour, consistency, Aroma and taste, these highly appreciated by the patient.

Disadvantages → In children, we cannot use it in higher dose and much precaution are required.

- Some woman patient, might not like these medicines b/c of Alcohol content. specially in menopausal age, with used of Asava and Arishta. Some woman may feel increase in hot places places.
- Some elder patient may also feel increase warmth in the body, gastric irritation, hair fall and constipation.

uses → Arishta are mainly used as Arthritis, Remedies for Arthritis, stone, chronic, Allergy, Anaemia, stimulant, tonic, febrifuge while Asava find to used as a cure for bronchitis, cough, Rickets, stomachic, stimulant, tonic.

Standardization of Asava and Arishta

- General problem associated with standardization → certain problem arises during standardization of these prepⁿ due to the following reason

① they are polyherbal prepⁿ.

② Active constituent is not known i.e. while is exact action cannot be estimate.

② No Pharmacological prepⁿ as known, that
to counteract a drug.

- only the activity of prepⁿ is known, dose and side effect are not known.

- No Clinical picture is present.

Standardization steps

① Standardization of raw materials

- to standardized a prepⁿ according to known character of the plants.

- Standardization of process → into two ways

① using standard raw material.

② utilizing indefinite time period, humidity, temp. and light

These products can be reproduced as all the condition are defined very well so there will be batch to batch product.

Standardization of finished products

The medicinal Analytical approach i.e various monograph such as viscosity, density, Refractive index, Polarity estimated.

① This should be uniform.

② Total amount of Alcohol contain present in prepⁿ can be estimated.

③ the other parameters are T.I.C, HPTIC etc.

Eg. of Arishtam

① Dasamoola arista → used in treating cold, cough, Anemia, after delivery care of mother, female infertility etc.

Draksharistham → used in cold, cough, Asthma, throat infection, intestinal disorder.

Salasivatari aristham → used to improve memory, concentration, immunity and also act as cardiac tonic.

Aurita arista → used in treating fever.

Arjuna arista → used in cardiac disorder, cold, cough etc.

Ashokarista → used in heavy period, fever, bleeding disorder etc.

Eg. of Asava → Loha Savam → used in Anemia, mala absorption syndrome, I.B.S, anorexia etc.

• Ushirasav → used in bleeding disorder, Anemia, urinary tract disorder, gastrointestinal ulcers etc.

• Kumariya Savam.

• Chandanasavam.

• Punalnava Savam.

(Tablets) (Pills)
VATTEGUTIKA

• These are solid dosage form of medication for oral administration prepared by hand or machine. Medicine prepared in form of Tablets or Pills are Kpavati or Gutika.

• These are made from one or more drugs of plants, animals or mineral origin.

Method of Prepⁿ → The drug of plant origin ~~and~~ are derived for and made into fine powder separately the minerals are made into Bhasm (ash) unless otherwise mention. Sand & Hg are mentioned the drugs added are by me according to the formula. These are put into a mortar and pestle and ground to soft paste with the prescribed fluid when the mass is properly ground and is in a condition to be made into pills, sugandh dravya (flavouring Agent) like Kasturi Kapoor are required are added and ground again.

• The final gummy mass should not stick to the finger when rolled, pill may be dried in shade for a sun where sugar or jaggery is mentioned prepⁿ of these should be made on mild fire and when the powder of ingredients are added to it and properly mix when still warm pills made up of plant origin drug when kept in a airtight container can be used for 2 hours. (1)

Pills containing mineral can be used for indefinite period when sugar or salt is an ingredient. The pills should avoid from moisture. The pills should not lose their original color, taste, smell and form.

Precautions → The material should be finely prepared.

- Diluent may be added when the quantity of drug is small.
- Lactose is used as a diluent when drug is coated.
- Size should be within limits.
- Soluble substance are used in which can be dissolve in stomach.

• If Pills is breaks.

- It should not be too soft or too hard.

Preservation → It should be stored in air tight container.

Marketed preparations → Lasunadi gutika.

- Maima gutika, Maritsanjvani gutika,
- Gandhakvati, Dagdhavati.

CHURNA →

These are solid dosage form of medication meant for internal use.

- ① Simple churana → It contains only one medicament.

② Compound Churna ⇒ It contains two or more medicaments.

Method of Prepⁿ ⇒ These drug are yield and dried properly. A powder mixture prepare by compounding drug animal or vegetable substance in a mortar with a pestle and passing the powder through a cloth or fine sieves. If Taggaly to be mixed with powder. It should be equal to the Churna and in the case of sugar it should be double of the Churna.

• If Ashafoetida is to be mixed. It should always be cooked to prevent Nausea, usual powder all taken with milk or hot water or cow urine and all often used four times in a quantity.

• when it is taken with GHEE, Honey or sugar all their proportion is just sufficient to mix the dose or even the double the Churna in quantity.

Precaution ⇒ Thoroughly cleaned and dried drug should be used for the prepⁿ of Churna.

• They should be finally sifted.

• Each substance should be powder separately and when mixed.

• Pestle and mortar used in the reducing the particle size and mixing the substance should clean and dry.

• They must be stored in dry container.

• They should not be prepared in rainy season.

• They should dissolved in stomach content.

- To dose is 2 to 3 gm which may be increased or decrease according to ~~dos~~ age and severity of disease.

Marketed formulations →

- Triphala churna, Sudarshana churna, Drakshadi churna.

Standardization of A

Monograph title ^(vernacular name) Sanskrit Name.

Description → Macroscopy character and external morphology.

Identification test →

- Test for detection of adulterants.
- loss on drying.
- foreign matter.
- solubility.
- Fat content (Tail and Ghrita)
- Acid value / Saponification value / I₂ value.
- Ash value ① Total ash value → ~~Acid~~
 - Acid insoluble ash.
 - water soluble ash.
- Extractive value →
 - Alcohol soluble extractive.
 - water soluble value.
- Volatile matter →
- sugar → ① Total sugar ② reducing sugar ③ non reducing sugar.
- pH
- Alcohol content (Asava & Arishta).

- Disintegration Test.
- weigh & uniformity.

Avelcha or Lehas → semisolid dosage form

- Avelcha is a semisolid prepⁿ of the drugs with the addition of Jaggary or sugar candy and boiled with prescribed drug Juices or or decoction.

Method of Prepⁿ → These prepⁿ generally have.

- Kasayam or other liquid.
- Jaggary or sugar candy.
- Powder or Pulps of certain drugs.
- GHEE or oil.
- Honey.
- Jaggary sugar or sugar candy is dissolved in the liquid and strained to remove the foreign particles. This solⁿ is boiled over a moderate fire when paaka is the ready compassed spw two fingers when it sink in water without getting easily dissolved. It should be removed from the fire.
- Fine powder of drug are then added in small quantity and stirred continuously and vigorously to form a homogeneous mixture.
- Ghee or oil, if required is added while the prepⁿ is still hot and mixed well. Honey is added when the prepⁿ is cooled and mixed with.

• The Anuleha should neither too nor be the thick fluid, when the pulp of drug is added and ghee or oil is present this

Can be good finding.

• Growth of the fingures integrates deterioration of the content of the snell prepared in the drugs are used.

Preservation → It should be kept in glass or porcelain jar.

Marketed formulation →

Suranavaleha.

Draksavaleha.

Chyanprash.

TAILAS ⇒

* Tailas are the liquid or semi solid dosage form of medicament, which is ~~used~~ meant for external and internal use.

• Tailas are the prepⁿ in which Tail (oil) is boiled with prescribed Kasaya (decoction) and Kalkas (thick paste of the drug) of the drug according to the formula

• This process ensures absorption of the active therapeutic principle of the ingredients.

Method of Prepⁿ: There are 3 essential components for the prepⁿ of Tailas -

- ① Drava (liquid)
- ② Kalkas (thick paste of drug)
- ③ sneh drave (ghee or Tail)

- Kalkas is taken one part by wt, sneh drave should be 9 parts and drave 16 parts.
- The Kalkas and to the dravya mixed together, sneha dravya is added, Boil and stirred well continuously so that Kalkas does not adhere to the vessels.
- When all dravya - dravya have been evaporated the moisture in the Kalkas will also begin to evaporate. ~~the~~ ~~now~~
- At this stage it should be stirred more often and carefully to ensure that Kalkas does not STICK to the bottom of vessels.
- The Kalkas is Tested from Time to Time to know the condition and stage of the prepⁿ.
- In the sneha dravye, if sugar present is added to the final product when cool.
- Where ever salt and alkali are used in this prepⁿ, they are added to a sneha and then strained.
- Tailas will have the colour odour and taste of drug used and have the consistency of the oil.

- when considerable quantity of milk is used in the prepⁿ, the oil become thick due to Ghrita and in cold season may condense further.

Preservation → They are preserved in glass, polythene, Al container.

Marketed formulation →

- Pinda Taila, Bhargaraja Taila
- Narayana Taila.

BHASMA ⇒ वृत्त प्रेषण अर्थात् चूर्ण

- Bhasma (Calcinated residue) is solid dosage form of medicament meant for internal use. Generally Pb, Sn, Zn, Fe, oil, gold, Ag, Pb, Sn, Zn, Black mica etc are used for mere prepⁿ.

- Bhasma means an ash obtain through incineration (in muphet furnace at 400°C). Bhasma is the powder of the substance obtain by calcination. It is applied to the metal and mineral product which are prepared by special process. in closed crucible in pits and with cooling cake.

- Ayurvedic prepⁿ mainly consist of medicinal formulation containing the active constituent or entire crude drug which is

- generally of plant are herbal origin but a part from these there are no. of prepⁿ of in Ayurveda which include mineral also along with the plant extract in the final formulations.

• These minerals are used for therapeutic and the product made by them or substance refered as herbo mineral

Prepⁿ.

• Bhasma is one of the eg. of herbo mineral prepⁿ.

• Bhasma are called Alkaline ash and to be prepare from vegetable and mineral substances.

① Vegetable ash → In the case of vegetable or herbs the drugs are first made into a coarse powder and then burned till they are completely reduced to ash.

② Mineral ash → Mineral ash as prepared by using the metal in crucible and then burned and then subjected to a process of purification.

• The purified mass is then oxidised, the oxidised product is then roasted, the finally roasted mass is reduced to fine powder.

• Bhasma are usually oxidised metal intended for internal use.

- o In Ayurveda great emphasis is laid on the way of Bhasma as prepared an oxide prepared in slightly diff. way, through Chemically, identically as shade to possess different property.
- o Crude metals such as gold, Ag, Cu, etc. are first purified in vegetable oil and Juices of different plant.
- o They are then roasted, oxidised and finally reduced to such degree, that these reduced particles float in the water.
- o The Bhasma of this kind are easily administered in the general body system and they directly increase the metabolism and have definite action upon the endocrine gland.
- o A few points of practical importance requires special attention regarding the prepⁿ of this category.

①, All prepⁿ of metals have a common earthy taste. They may vary in colour according to the method of choice and ingredient.

② As a general rule the older the prepⁿ the more effective it becomes.

③ these prepⁿ should be stored in glass stoppered bottles.

When Bhasma are given in combination of different pathological aspect they show minor shades of variation.

- in their therapeutic action.

Method of Prepⁿ → There are 2 stages for the prepⁿ of Bhasma -
Sodhana →

- ①
- ②
- ③
- ④
- ⑤
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② Preparation (Mudana)
Sodhana, Bhasma are prepared from

① minerals, metals, marine and animal product.

In Ayurveda, the process of purification is called Sodhana, which of two types

① Samanya Sodhana → It is applicable to a large no. of metal or minerals as heating thin seeds of the metals and emulsifying them in tail (oil) go mutra etc.

② Vishes Sodhana → It is applicable only to certain drug and in certain prepⁿ.

③ Preparation (Mudana) → The purified drug is put into a Khatva (Pestle and mortar) and ground with Juices of the specified plants or Kasaya of the drugs mentioned for particular metal or metal.

- It is ground specified period of time then small cakes are made.
- These cakes are dried well under sun and placed in one single layer in a shallow ~~on this~~ earthen plate and closed with another plate.
- the edge of is sealed with clay smear cloth in 7 constitutive layers and dried
- after a pit is done in open space.
- half of pit is filled with Cow dung cake.
- A sealed earthen container is placed inside and the remaining space is filled with more cow dung cakes.
- Fire is put in all forside and middle of the pit.
- when the burning is over, it is allowed to cool completely.
- The earthen container is removed the seal is open and content taken out.
- The medicine is ground into a fine powder in a khalva.
- This process of trichurating with the juice making Cakrikas and giving wood, it is repeated as many time as prescribed.
- Storages They are preserved in Air tight glass or earthen container.