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# Chapter 7

# Traditional System of Medicine and Ayurvedic Preparations IMPORTANT Questions

### Q1. Discuess briefly about Ayurveda, Siddha, Unani, and Homeopathy. Ans.

### Ayurveda System of Medicine

- Ayurvedic medicine system was established by the Hindus in India several thousand years ago.
- **•** The Vedic period started with the Aryans.
- The four holy books (written in Sanskrit) invented with divine inspiration were included in the Vedas, which means wisdom.
- These Vedas were initially conveyed to the students by their teachers in a verbal manner.
- But during the period of 2500-1500 BC ' the Vedas were available in written forms on birch bark.
- Later, they were even available written on papers.
- Rig Veda (the oldest Veda) has drugs and diseases mentioned in it. Atharva Veda (the fourth Veda) has ideologies for maintaining health and the medicinal effects of health mentioned in it.

# Basic Principles Involved

The development of Ayurvedic medicine system is based on the following 5 pharmacological principles of drug, i.e., Panchsheel;)

1) Rasa: It denotes the drug's taste (i.e., Dravya), action, and properties.

2) Guna: It denotes the drug's physical propertie

3)Virya: It denotes the drug's potency and shows two intrinsic properties

4)Vipaka: It denotes the end product of digestion

5) Prabhava: It denotes the drug's power

# **Five Elements**

1)Akasha (space),

- 2) Vayu (air),
- 3) Agni (fire),

4) Jala (water), and

5) Prithvi (earth).

- Akasha: It denotes the spaces within the body. i.e., mouth. nostrils. abdomen, etc.
- Vayu: It denotes the muscular movement.
- Tejas or Agni: It denotes the functions of enzymes, i.e., intelligence, digestion, and metabolism. Apa or
- Jala: It denotes the body fluids, i.e., plasma, saliva, and digestive juices.
- Prithvi: It denotes the body structure, i.e., bones, teeth. flesh. and hair)



#### Doshas

It is believed that all the processes occurring within a body are governed by a balance of the 3 types of doshas. The dosha which dominates a person's behaviour and body is called his constitution type.

- 1) Vata: It is composed of air and space. All the movements in the mind and body are controlled by it, thus should be maintained in a good balance.
- 2) Pitta: It is composed of fire and water. All heat, metabolism, and transformation within the mind and body are controlled by pitta
- 3) Kapha: It is composed of earth and water. It cements the elements in the body, providing the material for physical structure. It maintains resistance of the body. It causes joint lubrication, provides moisture to the skin, helps in wound healing, fills the spaces in body, provides biological strength, vigour and stability, supports memory retention. provides energy to heart and lungs, and maintains immunity

# Unani System of Medicine

- Unani (or Yunani or Unani-tibb) is a traditional medicine system practiced in India and Indian subcontinent.
- It refers to practice of Graeco-Arabic medicine, which relies on the teachings of Hippocrates and Galen (physicians of Greece and Rome, respectively).
- The Unani medicine was developed into an elaborate medical system by Rhazes (Arab and Persian physicians)
- The base of Unani medicine system is formed by the concepts of four humours, Phlegm (Balgham), Blood (dam), Yellow bile (safra), and Black bile (sauda)

# Basic principle involved

- > The principles of Hippocrates formed the base of unani medicine system.
- Hippocrates laid the facts that disease is a nature process, symptoms are the reaction that body produces towards the diseases and physicians role is to help the natural forces of the body.
- He introduced the method of checking patients medical history He also bought the Humoral theory Which is his most essential contribution towards the medical kingdom

The components whose loss in human body can cause a disease or even death are as follows:

### 1) Al-Arkan (Element),

- 2) Al-Mizaj (body fluids),
- 3) Al-Akhalt (Body Fluid),
- 4) Al-A'za' (Organ),
- 5) Al-Arwah (pneuma)
- 6) Al-Quwa (Power),
- 7) Al-At'al (Function)



# Siddha System of Medicine

- Siddha medicine system was founded by the Dravidian culture of the pre-Vedic period.
- It is the oldest medicine system, which utilises drugs obtained from vegetables.
- Siddha medicine system deals with the human body as well as with the inner soul.
- This medication system should not be used for earning money as it is a divine art based on truth.

# Homeopathy System of Medicine

- → Homeopathic medication are prepared by successive dilutions with forcefully shaking and striking ( succession ).
- $\rightarrow$  It was believed by the Homeopaths that after each dilution the effect of medication is enhanced : and this preparation process was named potentisation.
- $\rightarrow$  Dilution is carried on till the original substance completely fades away.
- → Before recommending any medicine, the Homeopaths ask the patients about their symptoms, physical and psychological state

# Q2. Write the preparation and standardization of any three ayurvedic formulations.

### Ans.

# Methods of preparation of Ayurvedic Formulations

- Indian medicine comes from Ayurveda which is said to be the science of life and was originated by Brahma.
- Ayurveda contains knowledge of medicines and the healing art.
- Ayurvedic medicine system from the ancient era utilises many pharmaceutical dosage forms which are even practiced at the present time.
- These dosage forms are derived from vegetable drugs
- Nowadays Allopathic and modern system of medicine is in general practice. however the pharmacists should be aware of the prevailing Ayurvedic dosages forms and their process of manufacturing.

The preparation and standardisation of the following Ayurvedic formulations are discussed below.

- 1) Arishta,
- 2) Asava,
- 3) Gutika,
- 4) Taila,
- 5) Chuma,
- 6) Lehya, and
- 7) Bhasma.



### Arishta

- Arishtas are prepared by the process of fermentation for a specific time period after boiling the main decoction substance and adding other ingredients.
- Arishta is an ancient medicinal preparation mentioned in the Vedas, having Ayurvedic medicines.
- 4 Method of Preparation
- The drug is coarsely powdered (javkut) to prepare kasaya, which is strained and transferred to the fermentation vessel.
- Required amount of sugar, jaggery, or honey are dissolved, boiled, and then added to the mixture obtained after straining the kasaya.
- ♣ For the fermentation process, the temperature has to be kept constant; this can be achieved by placing the container in a special room, in an underground cellar, or in a heap of paddy.
- The jar is uncovered (lid is removed) after a prescribed time and the contents are inspected to determine whether or not complete fermentation has occurred.
- The fluid in the jar is decanted followed by straining after 2-3 days only when the fine suspended particles has settled at the bottom.
- The liquid obtained after straining is the product which is filtered and the filtrate is stored in a bottle.
- **4** This filtered Arishta has a characteristic aromatic and alcoholic odour.

### Asavas

- Asavas are a famous ancient medicinal preparation mentioned in the Vedas.
- Asavas are prepared by the process of fermentation for a prescribed time after mixing all the specified ingredients with required quantity of unboiled water.
- Method of Preparation
- The drug is soaked in the form of a decoction in a solution of either sugar or jaggery for a prolonged duration.
- There after the mouth of the vessel is covered with a lid and edges are sealed with clay.
- During this time period, fermentation of Asava takes place; and as a result alcohol is produced which acts as a preservative.
- The product is filtered and the filtrate is stored in a bottle.
- **•** The filtered Asava should be clear and free of froth at the top.
- It should have a characteristic, aromatic, and alcoholic odour. It should not be sour. Asavas can be stored for a long duration in well stoppered bottles or jars
- Examples Kumaryasava, Madhukasava, Vasakasava, Arvindasava, Punarnavasava, etc.

Difference between Arishtas and Asavas

The preparation method of Arishtas is decoction and that of Asavas is infusion.

The fermentation time duration of Arishtas is much smaller than that of Asavas.



# Gutika

- Gutikas are available as medicated pills, prepared by combining the vegetables, mineral or animal drugs together.
- Gutikas should be consumed within two years.
- ✤ The pill forms of Gutikas having mineral ingredients can be used for life long.
- Method of Preparation
- Drugs obtained from plants are separately dried and finely powdered.
- The minerals are made into bhasmas or sindura.
- When parada (mercury) and gandhaka (sulphur) are stated, kajjali is made first and added with other drugs one at a time as given in the formula.
- This mixture is grounded properly in khalva to yield a soft paste containing the prescribed fluids.
- The mass after reaching a condition that it can be casted as pills is again grounded with added sugandha dravyas (flavouring agents) like kasturi and karpura.
- The mass obtained should not stick upon rolling between the fingers. The mass is shaped into many pills, which are dried in shade or in sun.
- ✤ If sugar or jaggery is added, paka is vigorously mixed.
- In warm state, vatakas should be rolled and shade dried.
- Pills of plant origin are stored in air-tight containers and should be consumed within two years.
- Pills of mineral origin can be used indefinitely.
- Gutikas should retain their original colour, odour, and taste after formulation.
- Gutikas containing salt or sugar should be prevented from moisture
- Examples Lasunadi gutika, Marma gutika, Pranda gutika, Bilvadi gutika, Marma gutika, Mritsanjivni gutika, etc.

# Taila

- Tailas are called sneha kalpa/paka and prepared by cooking oil with the juice or the decoction and paste of drugs.
- Paste of the drug should be I/4th part of the oil and the liquid (drava) should be four times of oil.
- > If no liquid is specified in the recipe, water should be used.

### Method of Preparation

There are three essential components for preparation of tailas:

1) Dravya (Liquid).

- 2) Kalika (thin paste of drug).
- 3) Snehadravya (Ghee or tail).



### Churna

- Churnas are finely powdered drug(s).
- Drugs stated in patha are first cleaned, dried, pulverised, and then sieved.
- Churnas are stored in air-tight containers to maintain their potency and free flowing nature for a year.
- Method of Preparation
- The drug prescribed in the yoga is cleaned, dried, finely powdered, and sieved.
- In case of many drugs, each drug is separately powdered, sieved, and weighed, followed by mixing together all the resultant powder.
- For large scale production, all the drugs are cleaned, dried, powdered together in disintegrators, and then screened through mechanical sifters.
- The powder should be made fine enough to pass through 80 mesh sieve.
- The powder particles should not adhere or become moist.
- The therapeutic efficacy of fine powder is comparatively better.
- Example : Ashwandhadi Churna, Eladi Churna, Haritaki Churna, etc

# Lehya

- Lehyas (also known as aveleha or leha) is a Semisolid drug product prepared by adding sugar, Jaggery (gur), or sugar candy to the drug and further boiling with drug juice or decoction.
- Method of Preparation
- Lehyas are prepared by dissolving jaggery or sugar candy in liquid, followed by moderate boiling and straining the obtained mixture to remove impurities.
- Boiling is stopped when the paka (phanita) becomes thready on pressing between two fingers or if it sinks in water without getting dissolved.
- Small quantities of the fine powdered drugs are added and stirred in a constant and vigorous manner to yield a homogeneous mass.
- > The hot preparation is added and properly mixed with ghee or oil (if required); while if honey is to be added the preparation should be first cooled.
- > Lehyas have the following components:
  - 1) Kasaya or other liquids,
  - 2) Jaggery, sugar, or sugar candy,
  - 3) Powders or pulps of certain drugs,
  - 4) Ghee or oil, and
  - 5) Honey.
- > Examples : Kutajavaleha, Draksavaleha, VasavaJeha, Sumavaleha, etc.



### Bhasma

- Bhasmas are grey, Whitish, yellowish, or black coloured powdered from of substance.
- These can be obtained from metals, minerals, or animals sources by a process named calcinations carried out in closed crucibles or in pits covered with cow drug cakes (puta).
- They are typically stored in glass container.
- Bhasmas are stable and retain their potency for a long time.

# Method of Preparation

Bhasmas are prepared in two steps, namely sodhana and marana.

These are time-consuming processes and require attention:

(1) First Stage (Sodhana): Bhasmas, as already knownare obtained from minerals, metals, marine, and animal products. Sodhana is a purification process

which is of the following two types: i) Samanya Sodhana: In this method, thin metal sheets are heated and immersed in taila, takra, gomutra, etc. This method can be used for large number of metals or minerals.

ii) Visesa Sodhana: This method can be used for some drugs and preparations.

(2) Second Stage (Marana):) This second stage of bhasma preparation occurs in the following steps: i) The purified drug is grounded for a specified time with juices of particular plants or kasayas of drugs (stated for a specific mineral or metal) in a stone mortar and pestle (khalva).

ii) Small cakes (cakrikas) are prepared from the obtained mixture.

iii) These cakes are sun dried and arranged in a shallow earthern plate (sarava) as a single

layer.

iv) Thereafter, the plate is closed with another plate, edges are sealed by winding clay smeared cloth in seven consecutive layers, and then it is dried.

v) A pit is formed in an open space, and filled with cow dung cakes up to the half level.

vi) The sealed earthen container (iv) is kept in the pit and more cow dung cakes are added to fill up the remaining space.

vii) All the four sides and the middle of the pit are put on fire.

viii) After complete burning, the pit is cooled,

