

## CURNA

### Definition

The Curna is fine powder of a drug or drugs.

### General method of preparation

- Drugs mentioned in the Yoga are cleaned and dried properly. They are finely powdered by pounding in a mortar with pestle and sieved. The powder is again sieved through a thin piece of cloth.
- In a Yoga, where there are a number of drugs, then the drugs are separately powdered and sieved.
- Each one of the powder is weighed separately, and mixed well together.
- As some of the drugs contain more fibrous matter than others, then they are powdering and weighing separately according to the Yoga, and mixing them together as recommended.
- In industry, all the drugs are cleaned, dried and powdered, together by disintegrators. The mechanical sifters could also be used.
- The finer the powder leads to be better therapeutic effectiveness.
- Then, sugar, Camphor etc, if mentioned are separately powdered and added at the end.
- The curna is often taken with some Anupana or vehicle such as milk, butter milk Ghee, honey etc., depending upon the formulation and indication.
- Ghee and honey is added twice the quantity of powder.

### Characteristics

The powder should be a fine powder.

### Preservation

They should be kept in air tight containers, and generally used within two months. Hingu and Lavana are roasted, powdered and added when indicated.

### Standardisation parameter of Churna

- Description (Macroscopic, microscopic)
- Loss on drying at 105 °C

- Total ash
- Acid insoluble ash
- Alcohol soluble extractive
- Water soluble extractive
- Particle size (80-100 mesh for churna, 40-60 mesh for kvatha churna)
- Powder Fineness
- Identifications by TLC/HPTLC with marker
- Test for heavy / toxic metals (Lead, Cadmium, Mercury, Arsenic)
- Microbial contamination (Total bacterial count, Total fungal count)
- Test for specific pathogens ( *E. coli*, *Salmonella spp*, *S. aureus*, *Pseudomonas aeruginosa*)
- Pesticide residue (organochlorin pesticides, organophosphorous pesticides, pyrethroid)

Test for aflatoxins (B1, B2, G1, G2)

## AVALEHA

### Definition

Avaleha or Lehya is a semisolid preparation of drugs, prepared with the addition of jaggery, sugar-candy or Khandasari (unrefined raw white sugar) and boiled along with a prescribe liquid.

### Method of preparation

These preparations generally have

- (1) Kasaya or other liquids;
- (2) Jaggey, sugar, sugar-candy or Khandasari;
- (3) Powders or pulps of certain drugs; and
- (4) Ghee or oil and honey.

- The jaggery, sugar, sugar-candy or khandasari is dissolved in the liquid and filtered to remove the foreign particles. This solution is boiled over a moderate fire.
- When the Paka is pressed between two fingers shows thread lines when stretched, or it sinks in water without getting easily dissolved, it should be removed from the fire.
- Finely powdered drugs are then added in small quantities and stirred continuously and vigorously to form a homogenous mixture.
- Ghee or oil is added while the preparation is still hot and mixed well.
- **Honey** is added when the preparation becomes cool and mixed well.

### Characteristics

- The lehya should neither be hard nor be a thick fluid.
- When pulp of the drugs is added and Ghee or oil is present in the preparation, this can be rolled between the fingers.
- Formation of fungus over it or fermentation is among others signs of deterioration.
- When metals are mentioned, the Bhasmas of the metal are used.
- In the case of drugs like Bhallataka, purified ones alone are to be included in the preparation.
- The color and smell of the finished product depend on the drugs used.

### **Preservation and storage**

The Lehya should be kept in glass or porcelain jars. It can also be kept in such a metal container which does not react with it. Normally, lehyas should be used within one year.

### **Standardization of Lehyas**

The parameters such as

- Description (Color, odor, Taste etc.)
- Loss on drying at 105 °C
- Total ash
- Acid insoluble ash
- PH
- Total solid
- Reducing sugar
- Total sugar
- Fat content
- Identifications, TLC / HPTLC
- Test for heavy metals (Lead, Cadmium, Mercury, Arsenic)
- Microbial contamination (Total bacterial count, Total fungal count)
- Test for specific pathogens ( *E. coli*, *Salmonella spp*, *S. aureus*, *Pseudomonas aeruginosa*)
- Pesticide residue (organochlorin pesticides, organophosphorous pesticides, pyrethroid)
- Test for aflatoxins (B1, B2, G1, G2)