



## MASI KALPANA: A NOVEL DOSAGE FORM

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### ABSTRACT

Masi Kalpana is a therapeutic dosage form mentioned in Ayurveda Pharmaceutics. It is used for internal and external administration in various ailments. It is a medicinal form where plant and animal origin drugs are subjected to heat treatment by which it turns into a carbonized form useful in therapeutics. Its use in clinical practice is also elusive. A few research works have been carried in Pharmaceutical aspect but its therapeutic utility needs to be proved.

**Keywords:** Masi, Pharmaceutics, Therapeutics, Carbonized form

### INTRODUCTION

Masi Kalpana is a dosage form in Ayurveda Pharmaceutics where the drug is brought to a carbonized form by the process of employing heat to the dry ingredients of drug. The drugs selected for Masi preparation can be plant or animal origin. It is used for both internal and external use. Its usage is more as local application.

#### Classification

According to origin: Jangama-ex. Horn, Nails, Hooves

Audbhida-ex. Triphala

According to use: Bahya -ex. Hastidanta masi, Triphala masi

Abhyantara -ex. Vajeegandha, Svaavida masi

According to process: Open method & Closed method

**Method of Preparation:** Two methods are adopted for the preparation namely Open Method & Closed method.

**Open Method:** The drug is heated in an iron pan till it turns black coloured. The end product is triturated to a fine powder form. Example is Triphala Masi<sup>1</sup>

**Closed method:** The drug is dried, coarsely powdered and kept in Sharava samputa (Earthen saucers sealed with mud smeared cloth) and then subjected to Puta (heated in a pit using cow dung cakes). The quantum of fuel employed is based on the hardness of the drug. After swangasheeta (Self-cooling), the Sharava samputa is opened and the material is collected and preserved in air tight containers. Example is Hasti Danta masi<sup>2</sup> (Masi of Ivory)

#### Masi Kalpanas in different text

1. Hastidanta Masi: Small pieces of ivory are taken and burnt to black in closed method (Antardhooma vidhi). The masi thus collected is mixed with rasanjana and the mixture is then ground with goat's milk and applied in Indralupta (alopecia).
2. Chatushpaada Masi<sup>3</sup>: Masi prepared with skin, hair, hooves, horns and bones of cattle, mixed with oil, if applied over the affected part (with hair loss) will help to retain the growth of hair.

3. Triphala Masi: Coarse powder of the drugs namely Haritaki (*Terminalia chebula*), Vibhitaki (*Terminalia bellirica*), Amalaki (*Phyllanthus emblica*) are taken and heated in an iron pan till it turns black. It is used in Upadamsha vrana (soft chancre) with madhu (Honey) for application.
4. Svaavida Masi<sup>4</sup>: The spines of porcupine, cut into small pieces and burnt to black in closed method.  
Dose: 250mg-1g with Trikatu churna and sugar in equal quantity with honey is effective in shwasa (Asthma), Kasa (Cough), Kshaya (Pthisis). Porcupine quills are said to possess antibiotic properties<sup>5</sup>.
5. Vajeegandha Masi<sup>6</sup>: Masi prepared with the roots of Ashwagandha (*Withania somnifera*) if taken along with honey is effective in Kaphadhika Shwasaroga.
6. Krishna Sarpa Masi<sup>7</sup>: Closed method is employed here. The dead black Cobra excluding its head, tail and intestine is burnt in closed sharava samputa and the well burnt material is applied as a paste along with Bibhitaka taila.  
Use: Cures all types of Vitiligo
7. Masi Yoga<sup>8</sup>: The rope used for suicidal hanging or the thread tied around the neck of children is taken and burnt to masi. This when taken with cold water relieves Apasmara (Epilepsy).
8. Mayurapiccha Masi: Useful in morning sickness<sup>9</sup>. 125mg of Mayurapiccha bhasma with 125mg of Pippali churna (*Piper longum*) alongwith Honey is effective in asthma and Hiccups<sup>10</sup>.
9. Keshaanajana Masi<sup>11</sup>: Masi prepared with Human hair by rubbing with Ghrita and subjecting to puta by closed method.  
Use: Sushkaakshipaka (Dry eye syndrome)

Triphala Masi is also used as an ingredient in Dantapuyahara Manjana<sup>12</sup> that is used for brushing of teeth and indicated in Dantapuya (Pyorrhea), teeth diseases and loss of teeth.

The predominance of carbon particles in this preparation may attribute this Kalpana the following benefits. The absorptive properties of carbon are utilized in the treatment of ailments of stomach due to hyperacidity. It removes toxic amines, organic acids of decomposed food and bacteria from the intestinal tract. It has got anti poisonous activity also<sup>13</sup>.

By the process of heat treatment hidden chemical constituents become prominent and/or new chemical moieties are formed which are therapeutically active. The black color indicates high percentage of carbon and oxides. Preliminary phyto chemical screening of both Triphala and Triphala *Mashi* indicates the presence of tannins and ascorbic acid<sup>14</sup>.

Antimicrobial activity of Triphala Masi was checked by agar gel diffusion method. The aqueous and ethanolic extracts of Triphala and Triphala *Mashi* exhibited a broad-spectrum antimicrobial activity against all the microorganisms. It inhibited the growth of all Gram-positive and Gram-negative bacteria. No signs of toxicity were observed in short-term analysis but mortality was seen in long-term study at the dose of 5000 mg/kg in Toxicity study conducted<sup>15</sup>.

Keshanjana Masi was converted to ointment using Petrolatum and a Pharmaceutical study was conducted. Petrolatum was used as a base as it is a widely used base in ophthalmic preparation<sup>16</sup>.

**Characteristics and Preservation:** Masi Kalpas when kept in air tight containers can be used indefinitely. As they are carbonized form of drugs chances of decomposition is less.

## CONCLUSION

Masi Kalpana is an important pharmaceutical preparation mentioned in Ayurveda Pharmaceuticals. Its reference is found in Samhita, Nighantus, etc. Only a few research works are carried in this dosage form with emphasis in Pharmaceutical research. Though mainly used for external application, references of internal administration are also found of lesser used drugs. Pharmaceutical modifications can be tried in this dosage form with different bases and tried therapeutically to evaluate the most effective base.

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