

REVIEW ON CHEMISTRY OF KUPIPAKVA RASAYANA W.S.R. TO TAMRA SINDOORA

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INTRODUCTION

Kupipakva rasayana is a unique pharmaceutical procedure in the Rasashastra field, where Mercury and other minerals and metals are sublimated by subjecting them to a gradual increase in temperature for a specific time. They are more potent and quick-acting even in smaller doses. Tamra Sindoor is one such Kupipakva Rasayan that is not that popular but is widely used in daily practice. But it has a wide range of therapeutic utility. It is a combination of Parada (mercury), Gandhaka (sulphur), and Tamra (copper) in the ratio of 1:1:1/2. Chemistry itself includes the determination of chemical and biological incompatibilities among the various ingredients of a prescription. Here, we will learn about various synthetic methods by which natural substances are converted into products with more favourable therapeutic or pharmaceutical properties. In the present paper will discuss the probable chemistry of Tamra Sindoor.

AIM AND OBJECTIVE

Aim- To study the probable chemistry of Kupipakva Rasayana W.S.R Tamra sindoor.

OBJECTIVE

1. To prepare the Tamra sindoor according to Ayurveda Sara Sangraha.
2. To do the physiochemical analysis of Tamra Sindoor.
3. To do the analytical study of Tamra Sindoor.
4. Through physiochemical analysis and analytical study, assess the probable chemistry of Tamra Sindoor.

MATERIALS AND METHODS

Major Raw drugs required: Parada, Gandhaka, and Tamra Minor drugs required: Sudha churna, Lashuna, Saindava lavana, Godugdha, Go grita, Tila taila, Takra, Go mutra, Kanji, and Kulatta. Equipments required: Khalva yantra, Vessel, Gas stove, Valuka yantra, Kachakupi, and Bhatti. Procedures included

1. Parada shodhana
2. Gandhaka shodhana
3. Tamra samanya shodhana
4. Tamra vishesha shodhana
5. Preparation of Kajjali
6. Preparation of Tamra Sindoor Method of preparation Parada shodhana

First, Parada with Sudha churna was triturated for 3 days and washed with warm water. Then again triturated with Lashuna (1 part) and Saindava lavana (1/2 part) till it

gets into black color. Then washed it with warm water and collected the pure Parada.

Preparation of Tamra Sindoor

- Step 1 - Prepare the Kachakupi by putting 7 layers of cloth smeared with Multhani mitti.
- Step 2 - Filled Kajjali (1Part) and Tamra curna (1/4 Part) in the Kupa.
- Step 3 - Place this Kupa in the center of Valuka Yantra.
- Step 4 - Fixed the Valuka yantra in the Bhatti.
- Step 5 - Kramagni was given for 36hrs. Mrudu agni – Upto 2500C - 8hrs Madyamagni – 250- 4500C - 15hrs Teekshnagni - Above 4500C - 13hrs
- Step 6 - After getting Suryodaya Lakshana, the copper coin tested positive, and cork test positive coking was done. During this time, Agni was completely stopped.
- Step 7 - Again Agni was given till it reached its peak temperature.
- Step 8 - Allow it for Swangasheeta (self-cool)
- Step 9 - Break the bottle using a thread dipped in kerosin and lighting up.
- Step 10 - Collected the Tamra sindoor from the neck of Kupa, which was conical in shape and shiny silver in appearance.

OBSERVATIONS

Parada was smoky in appearance, and after Shodhana, it became shiny and silvery in appearance. This was because of the removal of all the impurities from it. Even chemically, the changes were observed, i.e., the raw Parada was containing Iron, Copper, Zinc, Silver, Tin,

Cadmium, Lead, and Arsenic elements. After purification, the amount of the above elements was reduced.

CONCLUSION AND DISCUSSION

Knowing the method of preparation of a drug and its indication is not sufficient. One should know the chemistry of that drug so that one can understand the mode of action of the drug. Here, effort has been put into explaining the chemistry of Kupipakva rasayana w.r.s Tamra sindoor. Here though Tamra is the main drug for this preparation it was not found in end product or even if we found it was in traces. But we see the effect of Tamra at the end. This can be understood by the property of mercury which has the capacity of engulfing the properties of a drug in which it is added. The end product i.e., Tamra Sindoor is hexagonal in crystal structure, nano particle in size and Mercuric Sulphide in form. Based on its structure and particle size it is understood that it is easily absorbed in the body and shows its action very fastly. It shows this process of preparation of Tamra Sindoor is not a simple chemical reaction it is a complex chemical compound.

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