Mandoor Shodhana - A Bird Eye Review

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ABSTRACT

Mandoor (Iron Oxide) is important in Rasashastra as a Dravya from Upadhatu Varg. It is widely used in Ayurveda therapeutics for the treatment of Pandu Roga, Kamala Roga, Rajakshaya and Raktakshaya. Mandoor is found buried inside the earth’s land and is said to be of mineral origin. Thus, it becomes important to get rid of physical and chemical impurities in Mandoor and make it potent for using it in therapeutics. To serve the necessity, Shodhana procedure is mentioned in classical texts of Ayurveda. The physical and chemical changes occurring during Shodhana make Mandoor suitable for the therapeutic use. In the classical texts of Ayurveda and Rasashastra numerous Shodhana procedures for Mandoor are found mentioned. So here an attempt was made to review various Shodhana procedures for Mandoor. In this context eighteen Vishesh Shodhana methods and a Samanya Shodhana found mentioned in different texts. A thorough review was carried out for the Shodhana procedures.

Key words: Mandoor, Iron Oxide, Shodhana, Rasashastra, Gomutra, Triphala Kwath

INTRODUCTION

Rasashastra is a branch of Ayurveda pharmaceutics which deals with the therapeutics prepared with herbal, minerals, metals, toxic herbs, and animal origin products.

Metallic products and its oxides are divided into Dhatu and Upadhatu Vargas (categories) respectively. Mandoor (Iron oxide) is a metallic oxide cum silicate of iron. Where it occurs as lumps, boulders, or aggregates at areas where smelting activity is carried out. Thus, it is a need to use Shodhit (purified) form of Mandoor.[1,2]

Sanskaras are mentioned in Ayurvedic texts for emphasizing quality-control of finished and in-process products. Shodhana is one of the methods of Sanskaras. Shodhana detoxifies and enhances therapeutic efficacy of Dravya.

Shodhana is broadly divided into two types, namely, Samanya Shodhana and Vishesh Shodhana.

Nirvaapa, process of Shodhana is mainly integrated for Mandoor. Nirvaapa literally means to extinguish a red-hot heated Dravya into some Shodhana liquid media.[3] Swarasas (herbal juices), Godugdha (milk), Gomutra (cow’s urine) and Kwathas (decoction) are used to serve the purpose of liquid medias in Shodhana.

Classical text Rasatarngini has mentioned the use of Mandoor in wide spectrum. Mandoor is used in various types of Pandu Roga, Kamala, Sosha Roga, Sotha Roga, Halimaka, Yakrit- Pleeha Rogas. Consumption of Ashuddha (impure) Dravya causes many diseases in body.[4]

A reference from Rasendra Chudamani states that use of Ashuddha (impure) Mandoor causes Ashmari Roga.[5]
Combining references from various classical texts, use of Ashuddha (impure) Mandoor can lead to Panduta (Anaemia), Kustha (Skin diseases), Hridroga (heart diseases), Shoola (Pain), Ashmari (Renal calculi), Hrillas (Emetamesis), and even Mrityu (Death).

**METHODS**

The present study is a literary study. Sources for this study were obtained from several classical Ayurvedic texts, commentaries and articles.

**OBJECTIVES OF SHODHANA**

1. To purify the Dravya
2. To get rid of unnecessary parts in the Dravya
3. Balancing Doshas within the Dravya
4. Increasing efficacy of Guna in Dravya
5. Making Dravya potent for particular use

**Types of Shodhana**[6]

Shodhana is mainly of two types:

1) *Samanya Shodhana*

- It refers to the removal of general impurities found in a group of Dravyas.
- Drugs that fall into same group or category (Maharasa, Upasrasa, Sadharan Rasa, Dhatus, Upadhatus) possess similar kind of impurities. *Samanya Shodhana* is performed on drugs possessing similar kinds of impurities.
- It refers to the removal of general impurities found in a group of Dravyas.
- Example - *Dhatu Samanya Shodhana*.

2) *Vishesh Shodhana*

- It is performed to remove specific impurity and produce specific property in a substance.
- It refers to the *Shodhana* prescribed for a particular Dravya.

*Vishesh Shodhana* is performed after *Samanya Shodhana*.

- It is performed to remove impurities specific to the substance which cannot be removed by *Samanya Shodhana*.
- After *Vishesh Shodhana*, there are considerable physical changes in the chemical structure of the substance.

- Example - *Shodhana* of Abhraka by Nirvaapa procedure into Triphala Kwath (Decoction made of Emblica Officinalis, Terminalia Belerica and Terminalia Chebula).[9]

The above procedures can be further divided into *Saagni* and *Niraagni*. *Saagni* means the processes which employ the use of Agni (fire) and *Niraagni* means the processes that do not make use of Agni (fire).

*Saagni* Examples - Nirvaapa, Bharjana, Putapaka, Swedana, Paatana, Dhalana.

*Niraagni* Examples - Bhavana, Shoshana, Prakshalana, Nimajjana, Sinchana, Gharshana.

**Mandoor Shodhana**

1. *Mandoor Samanya Shodhana*

Mandoor’s *Samanya Shodhana* is carried out by Nirvaapa procedure. Pieces of impure Mandoor are heated until they are red hot and extinguished into five different liquid medias- Sesame Oil (*Til Taila*), Buttermilk (*Takra*), Cow’s Urine (*Gomutra*), Sour Gruel (*Kanjji/ Arnala*) and Horse gram Decoction (*Kulattha Kwath*) respectively.[9]
However, Mandoor’s Vishesh Shodhana is described by various GranthaKaras into their specific Granthas. After thorough review, the following processes were compiled for Mandoor Shodhana.

2. **Mandoor Shodhana By Nirvaapa Procedure**

- Classical text, Rasendra Saar Sangraha mentions Vishesh Shodhana like that of Samanya Shodhana; which states-Nirvaapa of Ashuddha Mandoor into Til Taila, Takra, Gomutra, Kanji, Kulattha Kwath for 7 times in each liquid media.

- Rasaratnasamucchaya suggests, heating pieces of raw Mandoor over high temperature flames created by wood of Bibhitaki (Terminalia belerica) tree until it is red hot and extinguishing into Gomutra (Cow’s Urine) and repeating the process for a total of 7 times gives Shuddha Mandoor.

- Similar process of Shodhana was laid down by various traditional texts such as - Rasatarangini, Yogratnakara, Rasamitra, Brihat Rasaraj Sundar, Yogendra Chintamani, Rasakamdhenu, Rasendra Chintamani and Basavrajivam.

- However, Rasaratnasamucchaya has also laid down another procedure for Shodhana in which quenching of red-hot pieces of raw Mandoor is done into Triphala Kwath, in which the Kwath (decoction) is prepared using Gomutra as liquid media.

- Traditional text Rasayansaar explains Shodhana by quenching red hot pieces of Mandoor into Triphala Kwath prepared using Gomutra for about seven times.

- Classical texts Rasamanjiri, Ayurved Prakash and Chakraduttah mentioned Mandoor Shodhana by eight times Nirvaapa into Gomutra.

- Two traditional references of Mandoor Shodhana for twenty-one times into Gomutra as liquid media were found in texts of Siddha Yoga Sangraha and Rasamritam.

- Rasa Jala Nidhi (Ocean of Indian Chemistry, Medicine & Alchemy Volume-3) has laid down three different procedures for Mandoor Shodhana

- a) Quenching into Gomutra for 7 times;

- b) Quenching in Triphala Kwath prepared using Gomutra and repeating the procedure until it attains powder form;

- c) Mandoor is powdered and Pachana Sanskara is performed into eight times its weight of Gomutra (cow’s urine) and powdering it again.

3. **Mandoor Shodhana by Pachana and Abhisheka Procedure**

- As per references in Sharangdhar Samhita, Mandoor Shodhana is carried out by Abhisheka and Pachana method for about 7 times using Gomutra and Triphala Kwath (Decoction made of Emblica Officinalis, Terminalia Bellerica and Terminalia Chebula).\[10\]

- Charaka Samhita mentions Mandoor Vishesh Shodhana by Pachana method.

- One of the three Shodhana processes said by Rasa-Jala-Nidhi has performed Mandoor Shodhana by Pachana method, into 8 times its weight of cow’s urine and powdering it after.

**Tabular Representation**

<table>
<thead>
<tr>
<th>SN</th>
<th>Reference</th>
<th>Media Used</th>
<th>Process</th>
<th>Repetition</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Rasaratnasamucchaya</td>
<td>Taila, Takra, Gomutra, Kanji, Kulattha Kwath</td>
<td>Nirvaapa</td>
<td>7 times in each mentioned media</td>
</tr>
</tbody>
</table>

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After thorough review, the following processes were compiled for Mandoor Shodhana.
**Vishesh Shodhana of Mandoor by Nirvaapa Procedure**

<table>
<thead>
<tr>
<th>SN</th>
<th>Reference</th>
<th>Media - Gomutra</th>
<th>Media - Triphala Kwath prepared using Gomutra</th>
<th>Repetition</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Rasaratnasamuchaya (Reference-1)(^{[12]})</td>
<td>+</td>
<td>-</td>
<td>7</td>
</tr>
<tr>
<td>2.</td>
<td>Rasaratnasamuchaya (Reference-2)(^{[13]})</td>
<td>+</td>
<td>Repeat Until Mandoor Attains Powder Form</td>
<td>-</td>
</tr>
<tr>
<td>3.</td>
<td>Rasatarangin(^{[14]})</td>
<td>+</td>
<td>-</td>
<td>7</td>
</tr>
<tr>
<td>4.</td>
<td>Yogratnakara</td>
<td>+</td>
<td>-</td>
<td>7</td>
</tr>
<tr>
<td>5.</td>
<td>Rasamitara(^{[15]})</td>
<td>+</td>
<td>-</td>
<td>7</td>
</tr>
<tr>
<td>6.</td>
<td>Brihat Rasarajsundar</td>
<td>+</td>
<td>-</td>
<td>7</td>
</tr>
<tr>
<td>7.</td>
<td>Yogendra Chintamani</td>
<td>+</td>
<td>-</td>
<td>7</td>
</tr>
<tr>
<td>8.</td>
<td>Rasakamdhenu(^{[16]})</td>
<td>+</td>
<td>-</td>
<td>7</td>
</tr>
<tr>
<td>9.</td>
<td>Basavrajivam(^{[17]})</td>
<td>+</td>
<td>-</td>
<td>7</td>
</tr>
<tr>
<td>10.</td>
<td>Rasayansasar(^{[18]})</td>
<td>+</td>
<td>-</td>
<td>7</td>
</tr>
<tr>
<td>11.</td>
<td>Rasamanjir(^{[19]})</td>
<td>+</td>
<td>-</td>
<td>7</td>
</tr>
<tr>
<td>12.</td>
<td>Ayurved Prakash(^{[20]})</td>
<td>+</td>
<td>-</td>
<td>8</td>
</tr>
<tr>
<td>13.</td>
<td>Chakraduttah</td>
<td>+</td>
<td>-</td>
<td>8</td>
</tr>
<tr>
<td>14.</td>
<td>Siddha Yoga Sangraha</td>
<td>+</td>
<td>-</td>
<td>21</td>
</tr>
<tr>
<td>15.</td>
<td>Rasamritam(^{[21]})</td>
<td>+</td>
<td>-</td>
<td>21</td>
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<tr>
<td>16.</td>
<td>Rasa-Jala-Nidhi (Reference-1)(^{[22]})</td>
<td>+</td>
<td>-</td>
<td>7</td>
</tr>
<tr>
<td>17.</td>
<td>Rasa-Jala-Nidhi (Reference-2)(^{[22]})</td>
<td>+</td>
<td>Repeat Until Mandoor Attains Powder Form</td>
<td>-</td>
</tr>
<tr>
<td>18.</td>
<td>Taila</td>
<td>Nirvaapa</td>
<td>7 times in each</td>
<td>-</td>
</tr>
</tbody>
</table>

**DISCUSSION**

*Mandoor* has wide applications in *Pandu Roga*, *Pleeharoga*, *Shotha Vyadhī*, and *Kamala*. Traditional text, *Rasamritam* suggests *Mandoor* as, “Balanam Atishasyate;” which means *Mandoor* is of great importance in paediatric patients. This creates need for using pure and *Shodhit* form of *Mandoor Dravya*. *Mandoor* becomes purified and detoxified by *Shodhana* process.

Considering all the above reviewed references from various classical texts- Mainly *Nirvaapa* process was found to be preferred mode for *Shodhana*. *Nirvaapa* can be divided into three smaller processes - Heating → Quenching → Post quenching interaction of solid hot material and liquid media used for quenching.

The liquid media act as cooling media during the process of *Nirvaapa*. They may serve as favourable conditions for various chemical and structural changes occurring during *Nirvaapa*. When a *Dravya* is quenched, the liquid media may enter the *Dravya* through the spaces created on surface and may create a film over them. When reheating for further process it may lead to the breaking of *Dravya*.

Here, predominantly, *Gomutra* and *Triphala Kwath* were found to be the most preferred quenching medias. These medias bring about considerable changes in *Mandoor*. They alleviate the *Doshas* and impurities in *Mandoor*. They must be entering the expanded area created after quenching, causing dissolution of water-soluble impurities which make *Mandoor* brittle.

The quenching repetition stands out to be of seven times as per majority of traditional texts. It was found
out that few texts mentioned quenching repetition for eight and twenty-one times as well.

Furthermore, methods stated for Shodhana of Mandoor are Abhisheka & Pachana by few Acharyas.

CONCLUSION

In the study conducted above it was found out that superficially, two main methods of Vishesh Shodhana were administered for Mandoor. The two methods are- Nirvaapa and Abhisheka & Pachana namely. The liquid medias preferred for different Shodhana processes were- Gomutra, Triphala Kwath and Triphala Kwath prepared using Gomutra. Quenching repetitions mentioned were a total of seven times, eight times and twenty-one times according to various traditional texts. Making it to the conclusion, it can be said that Nirvaapa was found to be the most endorsed method for Mandoor Shodhana with repetition of seven times of quenching into Gomutra as most preferred quenching media.

REFERENCES