PHARMACEUTICAL STUDY OF SAMEER-PANNAGA

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ABSTRACT
Rasashastra is the one essential part of ayurveda, concerned about the preparation of medicine. Those medicines are again divided in four parts. Among those Kupipakwa is one type that prepare in the glass bottle. This kupipakwa medicine needs a particular time period with required quantity of heat which is defiantly seems more than the any other medicine required. In this article the matter highlighted about the concept of heat regulation and record of temperature changes while preparing Sameerpannaga Rasa.

KEYWORDS: Kupipakwa rasayan, Sameerpagnag.

INTRODUCTION
Ayurved is science of life and Rasashastra is its branch which deals with study of metallic and mineral preparations. Here the metals and minerals termed as “Rasadrvyas’’ are processed with herbs to convert them from nirindriya to sendriya form. Although this is hypothetical. Here the process of shodhana and marana is worth mentioning. Shodhana process purifies the minerals and metals and also adds the qualities of shodhana dravyas to them, In shodhan proses mineals and metals get purified and also receive the beneficial qualities of that shodhana dravya too, and prepares them for the process of marana. In this way minearals and metals are made easily assimilable in Bhasma form into human body by marana process.
In Rasa samhitas medicines prepared from mercury are classified into four groups.

1) kupipakva rasayan
2) Kharaliya rasayana
3) parpati rasayana
4) pottali rasayan

Sameerapannaga rasa comes under kupipakva rasayan, since it is prepared in a kach-kupi [glass bottle]. The rasashadhies which are prepared in a kach-kupi, in the valukaayantra and processed by Agni are called kupipakva rasayana. It is talastha rasayana as the prepared drug accumulates at the bottom of the bottle.

Kuipakva rasayanas are more potent and fast acting.
Sameer-pannaga ras is administered in Tamak-shvasa, unmaada, sandhivaat and vat vikaaras.

AIMS AND OBJECTS
To study the pharmaceutical process of Sameer-pannaga ras, reference was selected from Ras-Chandanshu.

Record the praman of Agni i.e. regulation of heat and record of temperature changes while preparing the Sameer-pannaga Ras.

MATERIAL AND METHOD
Paradam Gandhakam Mallam Haritalam Manahsheela|
Etat churnikrutam sarvam mardayet cha dintrayam |
Kachakupyaam vinikhipya vaalukaayantrake nyaset|
Kramaagninaa pachet samyak yamaashtena cha mudrayet|
Svaangasheetam samuddhrutyaa naamnaa asau vaatapannagah|
Sannipaate kafonmaade sandhibandhe kaphaamaye|
Naagavallyaa daleneva bhakshayet gunjikaamitam|
[Ras-chandaamshu]
The Sameerapannaga was prepared as mentioned in Ras-chandamshu.

Ingredients: - Shuddha parad 100 gm [HgO]
Shuddha gandhak 100gm [S]
Shuddha haritaal 100 gm [As2S3]
Shuddha manahshilaa 100 gm [As2S2]
Shuddha somal 100 gm [As]
Dose - 50 mg to 125mg

Procedure - Following are the stages of sameer-pannaga Ras preparation.
First all the contents were purified according to ayurvedic procedures.

1] Parad shodhan - Parada was purified by grinding it with the kalka of garlic and saindhava, for 7 days. [Aarogya prakash165]

2] Sulphur shodhan – Sulphur was mealted in Go-grhuta and poured in godugdha for 3 times. After that it was washed with warm water [Raas-Tarangini-8/7-11]

3] Haratal shodhan - Haratal was purified by boiling it with lime water in dola-yantra for 3 hours. [Ras-ratna samucchaya 3/70]

4] Mansheel shodhan – Mansheel was purified by grinding it [bhavana] with adraka-swarasa for 7 times.[Raas-Tarangini-11/14]

5] Somal shodhan – Somal was purified by boiling it with swarasa of bitter guard [karavellaka] in dolayantra for 3 hours. [Raas-Tarangini 11/136]

6] Kajjali nirmanam - Preparation of kajjali by grinding parad and Gandhak in khalvayantra for 7 days. Then shodhita harta, mansheel, and somal were added in kajjali and that mixture was grinded for 6 days in khalvayantra.

7] Filling of kupi- Filling the prepared material upto 1/3 part If kupi which is already enwrapped in clay smeared cloth.


Pakavidhi – Kupi was heated step by step with Mrudu, Madhya, and Teevra agni.
Mrudu agni - upto 220ºC
Madhyam agni - upto 230ºC--450ºC
Teevra agni - upto 450º--550ºC
Pak pariksha was done intermittently.

Post heating phase
1] Corking of bottle.
3] Swangshitikaran for 24 hours.
5] Collection of final product and storage.
For 500 gms of constitenuts 325 gms of sameerapannaga was obtained.
OBSERVATION

<table>
<thead>
<tr>
<th>Time</th>
<th>Temp</th>
<th>Observation</th>
</tr>
</thead>
<tbody>
<tr>
<td>06.00 am</td>
<td>0° c.</td>
<td>Corking of bottle was done.</td>
</tr>
<tr>
<td>09.00 am</td>
<td>40° c.</td>
<td>Corking was removed.</td>
</tr>
<tr>
<td>10.00 am</td>
<td>100° c.</td>
<td>White coloured fumes coming out. Kajjali becomes moist.</td>
</tr>
<tr>
<td>1.00 p.m.</td>
<td>140°c</td>
<td>Yellow coloured fumes coming out. Shalaka chalan.</td>
</tr>
<tr>
<td>3.00 p.m.</td>
<td>160°c</td>
<td>Dark yellow coloured fumes, diminished.</td>
</tr>
<tr>
<td>5.00 p.m.</td>
<td>200°c</td>
<td>White coloured fumes coming out. Kajjali-aardra.</td>
</tr>
<tr>
<td>7.00 p.m.</td>
<td>280°c</td>
<td>Shalaka chalan. blue coloured flames at the tip of shalaka due to attached gandhak.</td>
</tr>
<tr>
<td>9.00 p.m.</td>
<td>350°c</td>
<td>Very few flames after shalaka chalan.</td>
</tr>
<tr>
<td>11.30 p.m.</td>
<td>480°c</td>
<td>Fumes totally absent. Corking was done. Chulhika only on burning coals and left to cool by itself.[swangashitalikaran]</td>
</tr>
</tbody>
</table>

ANALYSIS

Organoleptic parameters

Varna: Blueish black.
Gandh: Odourless.
Sprash: Soft.
Rasa: Tasteless.
Shabd: Doesn’t produce any sound.

CONCLUSION

Sameerapannaga can be prepared in traditional earthan or cast iron valukayantra. For pollution control, time saving and fuel saving proper instrument should be used.

When we measure the temperature in three phases like mrudu, madhyam, and tivra agni cast iron valukayantra is more effective. Here we can maintain the agni-matra with the help of pyrometer. In this modified valukayantra three to four kupies can be placed at a time.

This process took 11 hours for mrudu agni, 2 hours for Madhya agni and 3 hours for tivra agni. Total process took 16 hours to complete.

In this way we can standardize the matra of agni and time period for the complete process of sameerapannag.

REFERENCES

1. Ras-chandaamshu.
2. Aarogya prakash.
3. Ras-Tarangini.
4. Ras-ratna samucchaya.