SIGNIFICANCE OF RASAKALPAS IN RELEVANCE WITH AYURVEDIC PHARMACOTHERAPEUTICS (RASASHASTRA) IN THE MANAGEMENT OF MALE INFERTILITY

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ABSTRACT

Ayurvedic Pharmacotherapeutics have an altogether different approach towards management of Male Infertility. It is not solitarily dependent on dosh-dushya samurchana. In this system of medicine, Parada (Mercury) a backbone of Rasashastra has been blended with different Potent Herbs, Minerals and drugs of animal origin by specialized pharmaceutical procedures. Rasakalpas are very well known for small drug dose, enumerable formulations, palatability and quick action. In this study, the role of Rasakalpas in Increasing Vigour and Vitality, Increasing Sperm count and enhancing Sperm count to treat Male Infertility have been studied from ancient texts. Aim: To explore utility of Rasakalpas in the management of Male Infertility. Objectives: 1. To study some of potent Rasakalpas for the management of different aspects of Male Infertility. 2. To explore possible Pharmaco-therapeutical action of Rasakalpas in the perspective of Male Infertility. Material & Method: A review study of potent Rasakalpas has been carried out from different Rasagranthas regarding their pharmaceutical procedures, indications, drug dose, mode of administration, anupana, mode of action etc. in the perspective of management of Male Infertility. Conclusion: Rasakalpas are the multifaceted combination of Parada and other Rasaushadhis which are well known for their Rasayana action helps in improving quality and quantity of sperm

Keywords: Rasakalpas, Rasashastra, Male Infertility

INTRODUCTION

Infertility is “a disease of the reproductive system defined by the failure to achieve a clinical pregnancy after 12 months or more of regular unprotected sexual intercourse.”¹ The causes of Male infertility ranges from hormonal imbalances, to physical problems, to psychological and/or behavioural problems and ill habits

Ayurvedic classics describe infertility as klaibya or Napunsakata. If a person is unable to perform sexual intercourse with his partner then it is termed as Klaibya.² Causes of Male Infertility are Akaal Yonigaman, Nigrahat (Suppression of Urge for coitus), Atimaitthun (Over indulgence in sexual activity), Shastraksha-radikarma (Injury to genitalia), Asatmyanam cha sevana (Eating improper food), Ayonau (Indulging into sex other than natural ways) and other causes like fear, sorrow, stress.³ Ayurvedic Pharmacotherapeutics have an altogether different approach towards management of Male Infertility.
Infertility. It is not solitarily dependent on 
*dosh-dushya samurchana*. In this system 
of medicine, *Parada* (Mercury) a back-
bone of *Rasashastra* has been blended 
with different potent Herbs, Minerals and 
drugs of animal origin by specialized 
pharmaceutical procedures. *Rasakalpas* 
are very well known for small drug dose, 
enumerable formulations, palatability and 
quick action.

In this study the role of *Rasakalpas* of 
1. *Kharaliy Rasayana* 
2. *Parpati* 
3. *Kupipakva* 
4. *Pottali* formulations are 
reviewed from different *Rasagranthas* for 
their activities in increasing vigour, en-
hancing sperm quality, increasing sperm 
quantity etc. to treat Male Infertility.

**AIM:** To explore utility of *Rasakalpas* in 
the management of Male Infertility.

**OBJECTIVES:**

- To study some of potent *Rasakalpas* 
  for the management of different as-
  pects of Male Infertility.
- To explore possible Pharmacotherapeutical action of *Rasakalpas* in 
  the perspective of Male Infertility.

**MATERIAL & METHODS:**

Modern system of medicines catego-
rized the causes of male infertility as 
a) Sperm Production Problem in testis 
b) Blockage of Sperm transport due to ob-
struction in in the tubes leading sperm 
away from the testes to the penis 
c) Production of sperm antibodies due to injury, 
vasectomy etc d) Sexual Problem due to 
ejection or ejaculation e) Harmonal Pro-
blems. The Treatment modalities adopted 
in modern medicine for the management of 
male infertility is either surgical correction 
to remove obstruction or treatment with 
human chorionic gonadotropin (hCG), 
recombinant human follicle stimulating 
hormone (rhFSH), also called gonadotro-
pin treatment.

In *Ayurvedic* texts, the male sexual 
dysfunctions have been described as 
Klaibya. It is of seven types.

1. *Manasik klaibya* (Impotency/Infertility due to Psychological disorder)
2. *Pittaj Klaibya* (Impotency/Infertility due to vitiated Pitta dosha)
3. *Veeryajanya Klaibya* (Impotency/Infertility due to improper Sperm)
4. *Rogjanya Klaibya* (Impotency/Infertility due to diseases)
5. *Shirachedjanya Klaibya* (Impotency/Infertility due to disorders in sper-
matic duct)
6. *Shukrastambhyajanya Klaibya* (Impotency/Infertility due to non conduct of 
  sexual intercourse)
7. *Sahaj Klaibya* (Congenital Impotency/Infertility)

*Vajikarana* (Aphrodisiac), branch 
of Ashtanga *Ayurveda* deals with fertility, 
potency and healthy progeny. In this branch 
rejuvenative and aphrodisiac medicines and psychological behaviour modifier 
catory procedures are prescribed to 
 improve vigour, vitality of individual and 
 quantity and quantity of sperm. In *Ayurve-
da* the Male Infertility can be treated by 
two types of treatments 1) *Shodhan Chikitsa* 
(Cleansing Therapy) 2) *Shaman Chikitsa* 
(Drug Treatment). In shodhan Chikitsa 
Panchakarma therapies like Abhyanga 
(Whole Body Massage with medicated 
oil), Shirodhara (Pouring of Medications 
over head) Nasya (Insertion of medication 
through nostrils) enforces physical and 
mental relaxation. Uttarbasti plays an im-
portant role in obstructive pathologies in 
male infertility.

Classics of *Rasashastra* follow al-
together different approach for manage-
ment of ailments. They suggest the use of 
potent *Rasaushadhis* for management of 
diseases without giving much importance
to *dosh-dushya sammurchana*. These *Rasaushadhi* is because of their potent ingredients and specialized Pharmaceutical procedures acquires exceptional properties of curing diseases. A review study of potent *Rasakalpas* has been carried out from different *Rasagranthas* regarding their pharmaceutical procedures, indications, drug dose, mode of administration, *anupana*, mode of action etc. in the perspective of management of Male Infertility. It is summarized in following table

**Table I : Important Rasakalpas in Male Infertility**

<table>
<thead>
<tr>
<th>Sr No</th>
<th>Name of Rasakalpa</th>
<th>Type</th>
<th>Ingredients</th>
<th>Dose &amp; Anupan</th>
<th>Indications</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Pushpadhanwa Ras&lt;sup&gt;10&lt;/sup&gt;</td>
<td>Kharaaliy</td>
<td>Rasasindura Nagbhasma Lohbhasma Abhrakbhasma Vangabhasma <strong>Bhavana Dravya:</strong> Dhaturapatra Swaras, Bhanga Kwath Yashtimadhu Kwath Shalmali Swaras</td>
<td>120 mg, Honey, Ghee and Milk</td>
<td>Shishnashaithilya after ejaculation, Shukravahini Balkarak, Shaithilyanashak</td>
</tr>
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<td>2.</td>
<td>Purnachandrododaya Rasa&lt;sup&gt;11&lt;/sup&gt;</td>
<td>Kharaaliy</td>
<td>Rasasindura Abhrakbhasma Lohbhasma Shilajeet Vidang Churna Swarnamakshik Bhasma</td>
<td>120-250 mg Honey and Ghee</td>
<td>Rasayan, Vayasthapak Shukrakshay Premature Ejaculation Daurbalya, Napuskatva</td>
</tr>
<tr>
<td>3.</td>
<td>Vangeshwar Rasa&lt;sup&gt;12&lt;/sup&gt; (Brihat Bhaishajya Ratnakar)</td>
<td>Kharaaliy</td>
<td>Shudha Parada-10gm Rajat Bhasma-10gm Vanga Bhasma-10gm Abhrakbhasma-10gm Suvarna Bhasma-3 mashe Moti Bhasma-3 mashe</td>
<td>120-250 mg Honey and Milk</td>
<td>Rasayan, Vayasthapak Shukrakshay Premature Ejaculation Daurbalya, Napuskatva</td>
</tr>
<tr>
<td>4.</td>
<td>Hemasundar Rasa&lt;sup&gt;13&lt;/sup&gt;</td>
<td>Kharaaliy</td>
<td>Rasasindur- 1 Part Suvarna Bhasma-1/4 part</td>
<td>120 to 180 mg Milk, Butter,</td>
<td>Rasayan Vajikaran</td>
</tr>
<tr>
<td>No.</td>
<td>Rasakalpa</td>
<td>Khara-</td>
<td>Curd</td>
<td>Vajeekar</td>
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<tr>
<td>5.</td>
<td>Chandrodaymakardhwaj</td>
<td>Khara-ly</td>
<td>240 mg</td>
<td>Vajeekar Balavardhak Veeryavardhak Agneevarhdhak</td>
<td></td>
</tr>
<tr>
<td>7.</td>
<td>Maheshwar Ras</td>
<td>Khara-ly</td>
<td>125 mg with water</td>
<td>Ksheen Veerya, Balavardhak</td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td>Rasasindura</td>
<td>Kupi-pakva</td>
<td>120 mg</td>
<td>Rasayan, Kamodeepak, Rativilasak, Balakanteeprad, Vajeekaran,</td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td>Sidha Makkardhwaja</td>
<td>Kupi-pakva</td>
<td>120 mg</td>
<td>Napuskatva,Rasayan, Kamodeepak, Rativilasak, Balakanteeprad, Vajeekaran</td>
<td></td>
</tr>
<tr>
<td>6.</td>
<td>Suvarnavanga</td>
<td>Kupi-pakva</td>
<td>120 mg</td>
<td>Napuskatva,Rasayan, Kamodeepak, Rativilasak, Balakanteeprad, Vajeekaran</td>
<td></td>
</tr>
<tr>
<td>7.</td>
<td>Rasaparpati</td>
<td>Parpati</td>
<td>120 -240mg</td>
<td>Rasaya-</td>
<td></td>
</tr>
<tr>
<td>Part</td>
<td>Shudha Gandhak 1 part</td>
<td>Takra Dugdha Jal</td>
<td>Rasayana, Kamashukravardhak, dourbalya, Shakteevardhak</td>
<td></td>
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<tr>
<td>8.</td>
<td>Suvarna Parpati 21</td>
<td>Parpati Shudha Parad - 80 gm Shudha Suvarna – 10 gm Shudha Gandhak - 80 gm</td>
<td>120 to 360 mg Takra Dugdha Jal</td>
<td>Rasayana, Kamashukravardhak, dourbalya, Shakteevardhak</td>
<td></td>
</tr>
<tr>
<td>9.</td>
<td>Hemgarbha Pottali 22</td>
<td>Pottali Rasasindura - 3 part Suvarna Bhasma - 1 part Tamra Bhasma - 1 part Gandhak - 1 part</td>
<td>15 mg - 120 mg Pippali and Honey</td>
<td>Rasayan, Vayasthapak Shukrakshay Premature Ejaculation Daurbalya</td>
<td></td>
</tr>
<tr>
<td>10.</td>
<td>Retorodhan Pottali 23</td>
<td>Pottali Akalka- ra, Jaiphal, Jaipatri, Ela, Kasturi, Keshar, Hingu each 1 part</td>
<td>15 mg - 120 mg</td>
<td>Rasayan, Vayasthapak Shukrakshay Premature Ejaculation Daurbalya</td>
<td></td>
</tr>
<tr>
<td>11.</td>
<td>Vanga Bhasma 24</td>
<td>Bhasma Shudha Vanga Shudha Parada</td>
<td>120-240 mg Butter with Guduchi Satva</td>
<td>Rasayan Increases Vigour for sex, Prevents Nocturnal emission, Shukrakshay Premature Ejaculation Daurbalya</td>
<td></td>
</tr>
<tr>
<td>12.</td>
<td>Trivanga Bhasma 25</td>
<td>Bhasma Nagbhasma, Vanga Bhasma, Yashad Bhasma each in equal part Bhavana - Bhang and Ahifen</td>
<td>120-240 mg Butter and Honey</td>
<td>Veeryavardhak Napuskatva, Rasayan, Kamodeepak, Rativilasak, Balakanteprad, Vajeekaran</td>
<td></td>
</tr>
<tr>
<td>13.</td>
<td>Suvarna Bhasma 26</td>
<td>Bhasma Shudha Suvarna Foils &amp; Shudha Parada in equal amount + Nimbu Swaras Bhavana + Shudha gandhak</td>
<td></td>
<td>Rasayan, Vayasthapak, Varnaprasadak, Phirang, Vajeekaran etc</td>
<td></td>
</tr>
</tbody>
</table>
DISCUSSION

Rasakapas are complex mixture of Parada and other potent dravyas prepared by specialized pharmaceutical procedures described in ancient texts. Parada is well known for the properties like Yogavahi, Sukshmasrotogami, vyavayi etc. It is well known as Rasayana which with above mentioned properties nourishes all the Rasaraktadi saptadhatu of human body and makes it powerful. Shukra dhatu being seventh dhatu and gets its completeness after nourishment of other six dhatus, Parada’s above mentioned properties make it very potent which in turn helps to improve quality and quantity of sperms

From Table II it is quite clear that Rasashadhis prescribed in male infertility in Rasagranthas are multi-centric in curing male infertility. The herbo-mineral ingredients in Rasaushadhis are helpful in treating general debility, Increasing Sperm count, normalizes shukravaha srotas. These formulations requires small drug dose but are quick acting. Rajeev Kumar et al carried out a double blind randomized placebo-controlled trial on fifty infertile men with iOATS (oligoasthenoteratospermia) to check the efficacy of Addyzoa capsule a herbomineral compound containing mineral origin drugs Purnachandrodray Rasa, Muktashukti bhasma, Suvarna Makshik Bhasma, Makardhwaj Rasa, Rasasindura etc and other herbal drugs. Drug was administered at a dose of two capsules twice a day for 3 months. Treatment with Addyzoa resulted in a significant improvement in total and progressive motility in the semen of men with idiopathic OATs after 3 months of therapy. Renata Walczak–Jedrzejowska et al in their In vitro and in vivo studies reveals, many antioxidants possess a beneficial effect on fertility and therefore their use is recommended as supportive therapy for the treatment of infertility in men.

Recommended daily allowance (RDA) of minerals with antioxidant eff RDA ect


Table II Recommended Dietary Allowance of Minerals

<table>
<thead>
<tr>
<th>Sr No</th>
<th>Mineral</th>
<th>RDA</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Zinc</td>
<td>10 mg</td>
</tr>
<tr>
<td>2</td>
<td>Selenium</td>
<td>55 µg</td>
</tr>
<tr>
<td>3</td>
<td>Copper</td>
<td>1 mg</td>
</tr>
<tr>
<td>4</td>
<td>Chrome</td>
<td>40 µg</td>
</tr>
<tr>
<td>5</td>
<td>Magnesium</td>
<td>2 mg</td>
</tr>
<tr>
<td>6</td>
<td>Iron</td>
<td>14 mg</td>
</tr>
</tbody>
</table>

Both of these recent studies are suggestive of efficacy of herbomineral compounds are supportive in treating male infertility.

In Rasakalpas with parada there are other drugs like Bhasmas, Kupipakva Rasayana which because of their specialized pharmaceutical procedures acquires nano particle size. Nano particle sized medicine absorbs quickly and helps in nourishment of all dhatu and eradication of diseases. These Rasaushadhis contains minerals like copper, iron, magnesium, zinc etc which are well known for their antioxidant properties. These properties make person suffering from Male Infertility more potent which in turn improves his
Psychological confidence and enhances vigor and Vitality.

**CONCLUSION**

Rasakalpas are the multifaceted combination of Parada and other Rasaushadhis which are quick acting, palatable, small dose making them drug of choice among vaidyas and Rugnas.

In Rasakalpas Parada and other potent drugs are blended together and subjected to specialized pharmaceutical procedures described in Rasagranthas (e.g. Jaran, Murchhana etc) which make Rasakalpas nano particle sized, Yogavahi, Sukhmasrotogami, vyavayi helping in improving quality of saptadhatu and improves quality parameters of Shukradhatu (Semen).

The ingredients used in Rasakalpas are predominantly Rasyana drugs containing minerals which are well known for their antioxidant properties. They nourishes all the dhatus and increases quantity and quality of Shukra Dhatu (Semen). Rasyana drugs provides Aayu, Kam, Bal, Varna etc. and make human more potent. This improves his Psychological confidence and enhances vigour and Vitality which is essential for treating Male Infertility.

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