



## ROLE OF PUNARNAVADI MANDURA IN HYPOTHYROIDISM- A CRITICAL REVIEW

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## ABSTRACT

Hypothyroidism is a condition in which the thyroid gland is not able to produce enough thyroid hormones. It is one of the most common thyroid disorders in India affecting one in ten adults. The prevalence of hypothyroidism in India is 11%. The main symptoms are tiredness, cold intolerance, vitiligo, aches and pain, heaviness of the body, myxedema, etc. These symptoms can be seen in *Panduroga* also, that is *Durbala*, *Srama*, *Shishira dweshi*, *Pandutva*, *Gatradhoola*, *Sareeragourava*, *Shopha*, etc. *Ayurveda* has a wide range of medicines for the management of such conditions with fewer side effects. *Punarnavadi mandura* is one among that, which is mentioned in *Charaka samhita in Pandu Rogadhikara*. Mainly it works as *Rasayana* in Hypothyroidism, and it will act from the level of *Rasa dhathu*. Here an attempt is made to evaluate the role and effect of *Punarnavadi mandura* in Hypothyroidism.

**Keywords:** *Punarnavadi mandura*, Hypothyroidism, *Deepana*, *Pachana*

## INTRODUCTION

In the present scenario, Hypothyroidism is considered as a common health issue in India, affecting one in

ten adults with an overall prevalence of 11% and the rate is increasing globally.<sup>1</sup> Hypothyroidism is a clin-

ical condition resulting from reduced production of thyroid hormone. The main symptoms of Hypothyroidism are tiredness, cold intolerance, vitiligo, aches and pain, heaviness of the body, myxoedema, etc.<sup>2</sup> Even in classics, above mentioned symptoms, can be seen in *Panduroga*, such as *Durbala*, *Srama*, *Shishiradweshi*, *Pandutwa*, *Gatrashoola*, *Sareeragourava*, *Shopha*, etc.<sup>3</sup> Many treatment modalities and formulations are mentioned in *Pandu*. Among that *Punarnavadi mandura* is one which is explained in *Charaka samhita*, *Pandurogadhikara*.<sup>4</sup> *Punarnava*, *Trivrut*, *Sunti*, *Pippali*, *Maricha*, *Vidanga*, *Devadaru*, *Chitraka*, *Kushta*, *Triphala*, *Haridra*, *Daruharidra*, *Danti*, *Chavya*, *Kutaja*, *Katuki*, *Musta*, *Pippalimoola*,

*Mandura bhasma* are the ingredients. Most of these drugs are *Deepana*, *Pachana*, and *Mandura bhasma*, due to its *Madhura rasa* providing *Balya*, *Prinana*, and *Tarpana* actions which help in the treatment of symptoms associated with Hypothyroidism.

**AIMS AND OBJECTIVES:** To evaluate the role of *Punarnavadi mandura* and its probable mode of action in the management of Hypothyroidism.

**MATERIALS AND METHODS:** Different classical textbooks of Ayurveda like *Charaka samhitha*, *Ashtanga Hridaya*, *Bhaishajya ratnavali*, and the other contemporary textbooks of pathology and medicines were referred for the study.

**Table 1: Types and Symptoms of Pandu:** <sup>5</sup>

<b>Pandu types</b>	<b>Lakshans</b>
<i>Vataja Pandu</i>	<i>Ruksha aruna anga, Krishna pandura varna, Angamardha, Toda, Sopha, Balakshaya, Sosha</i>
<i>Pittaja Pandu</i>	<i>Peeta haritabha, Pipasa, Seethakama, Dourbalya, Bhinnavarcha, Annamabhinandathi</i>
<i>Kaphaja Pandu</i>	<i>Gourava, Tantra, Swetabhasa, Praseka, Lomaharsha, Saada, Swayathu, Bhrama, Aruchi,</i>
<i>Sannipataja pandu</i>	<i>Tridosha lakshana</i>

**Table 2: Ingredients of Punarnavadi mandura and its Rasapanchaka**

Sl.No.	Dravya	Rasa	Guna	Virya	Vipaka	Doshagnata
1	Punarnava <sup>6</sup>	Madhura, Tikta Kashaya	Ruksha	Ushna	Madhura	Vatashleshmahara
2	Trivrut <sup>7</sup>	Madhura, Katu, Tikta, Kashaya	Laghu, Ruksha Tikshna	Ushna	Katu	Kaphapittahara
3	Sunti <sup>8</sup>	Katu	Guru Ruksha Tikshna	Ushna	Madhura	Kaphavatahara
4.	Pippali <sup>9</sup>	Katu	Laghu Tikshna Snigdha	Anushna	Madhura	Kaphavatasamaka
5	Maricha <sup>10</sup>	Katu,Tikta	Laghu Ruksha Tikshna	Ushna	Katu	Kaphavatasamaka
6	Vidanga <sup>11</sup>	Kashaya	Laghu, Ruksha	Sheeta	Katu	Kaphapittahara
7.	Devadaru <sup>12</sup>	Tikta	Laghu, Snigdha	Ushna	Katu	Kaphavatahara
8	Chitraka <sup>13</sup>	Katu	Laghu Ruksha Tikshna	Ushna	Katu	Kaphavatahara
9.	Kushta <sup>14</sup>	Katu, Madhura, Tikta	Laghu	Ushna	Katu	Kaphavatasamaka
10.	Haritaki <sup>15</sup>	Kashaya pradhana lavana varjita shad- rasa	Laghu, Ruksha	Ushna	Madhura	
11	Vibhitaki <sup>16</sup>	Kashaya	Ruksha, Laghu	Ushna	Madhura	Tridoshahara
12	Amalaki <sup>17</sup>	Amlapradhana la- vana varjita shad rasa	Ruksha, Laghu	Sheeta	Madhura	Tridoshahara
13	Haridra <sup>18</sup>	Tikta, Katu	Ruksha Laghu	Ushna	Katu	Kaphavatahara
14	Daruharidra <sup>19</sup>	Tikta ,Kashaya	Laghu Ruksha	Ushna	Katu	Kaphapittashamana
15	Danti <sup>20</sup>	Katu	Tikshna Laghu, Sara	Ushna	Katu	Kaphavatahara
16	Chavya <sup>21</sup>	Katu	Laghu Ruksha	Ushna	Katu	Kaphavatahamaka
17	Kutaja <sup>22</sup>	Tikta, Kashya	Laghu, Ruksha,	Sheeta	Katu	Kaphapittashamaka
18	Katuki <sup>23</sup>	Tikta	Laghu, Ruksha	Sheeta	Katu	Kaphapittashamaka
19.	Pippalimoo- la <sup>24</sup>	Katu, tikta, Kashaya	Laghu, Tikshna,	Ushna	Katu	Kaphavatahamana

			<i>Snigdha</i>			
20	<i>Mustaka</i> <sup>25</sup>	<i>Tikta, Katu, Kashaya</i>	<i>Laghu, Ruksha</i>	<i>Sheeta</i>	<i>Katu</i>	<i>Kaphapittashamana</i>
21	<i>Mandhura Bhasma</i> <sup>26</sup>	<i>Madhura</i>	<i>Guru, Snigdha</i>	<i>sheeta</i>		<i>Pittahara</i>

**Table 3: Karma of ingredients of Punarnavadi mandura**

SL.NO.	<i>Dravya</i>	<i>Karma</i>
1.	<i>Punarnava</i> <sup>6</sup>	<i>Deepana, Sothahara, Pandughna</i>
2.	<i>Trivruti</i> <sup>7</sup>	<i>Sothahara, Rechaka</i>
3.	<i>Sunti</i> <sup>8</sup>	<i>Deepana, Sothahara, Pandugna, Vedhanasthapana, Balya, Vatanulomana</i>
4.	<i>Pippali</i> <sup>9</sup>	<i>Deepana, Rasayana, Pachana, Rechaka</i>
5.	<i>Maricha</i> <sup>10</sup>	<i>Deepana, Lekhana, Ruchya</i>
6.	<i>Vidanga</i> <sup>11</sup>	<i>Sothahara, Raktavikaranut, Grahi</i>
7.	<i>Devadaru</i> <sup>12</sup>	<i>Deepana, Pachana, Sothahara, Vedhanasthapana, Rasayana,</i>
8.	<i>Chitraka</i> <sup>13</sup>	<i>Deepana, Pachana, Sothahara, Rasayana</i>
9.	<i>Kushtha</i> <sup>14</sup>	<i>Deepana, Pachana, Raktashodhaka</i>
10.	<i>Haritaki</i> <sup>15</sup>	<i>Deepana, Pachana, Shoolagna, Balya</i>
11.	<i>Vibhitaki</i> <sup>16</sup>	<i>Deepana, Pachana, Sothahara, Anulomana, Vedhanasthapana</i>
12.	<i>Amalaki</i> <sup>17</sup>	<i>Deepana, Anulomana, Rasayana</i>
13.	<i>Haridra</i> <sup>18</sup>	<i>Deepana, Sothahara, Pandugna, Raktha doshahara</i>
14.	<i>Daruharidra</i> <sup>19</sup>	<i>Deepana, Pachana, Sothahara, Vedhanasthapana, Rasayana, Raktashodhaka</i>
15.	<i>Danti</i> <sup>20</sup>	<i>Deepana, Sothahara, Raktavikarahara Shoolaghna, Rechaka</i>
16.	<i>Chavya</i> <sup>21</sup>	<i>Deepana, Pachana</i>
17.	<i>Kutaja</i> <sup>22</sup>	<i>Deepana, Pachana, Sothahara</i>
18.	<i>Katuki</i> <sup>23</sup>	<i>Deepana, Sothahara, Raktashodhaka, Pittavirechana</i>
19.	<i>Pippalimoola</i> <sup>24</sup>	<i>Deepana, Pachana, Vedhanasthapana, Vatanulomana</i>
20.	<i>Mustaka</i> <sup>25</sup>	<i>Deepana, Pachana, Grahi, Balya</i>
21.	<i>Mandhura Bhasma</i> <sup>26</sup>	<i>Deepana, Soshahara, Sothahara, Vrishya</i>

**METHOD OF PREPARATION:**

**Table 4: Showing ingredients of Punarnavadi mandura with quantity<sup>4</sup>**

Sl.No	<i>Dravya</i>	<i>Quantity</i>
1	<i>Punarnava</i>	<b>1 Pala</b>
2	<i>Trivrut</i>	<b>1 Pala</b>
3	<i>Sunti</i>	<b>1 Pala</b>
4	<i>Pippali</i>	<b>1 Pala</b>
5	<i>Maricha</i>	<b>1 Pala</b>
6	<i>Vidanga</i>	<b>1 Pala</b>
7	<i>Devadaru</i>	<b>1 Pala</b>
8	<i>Chitraka</i>	<b>1 Pala</b>

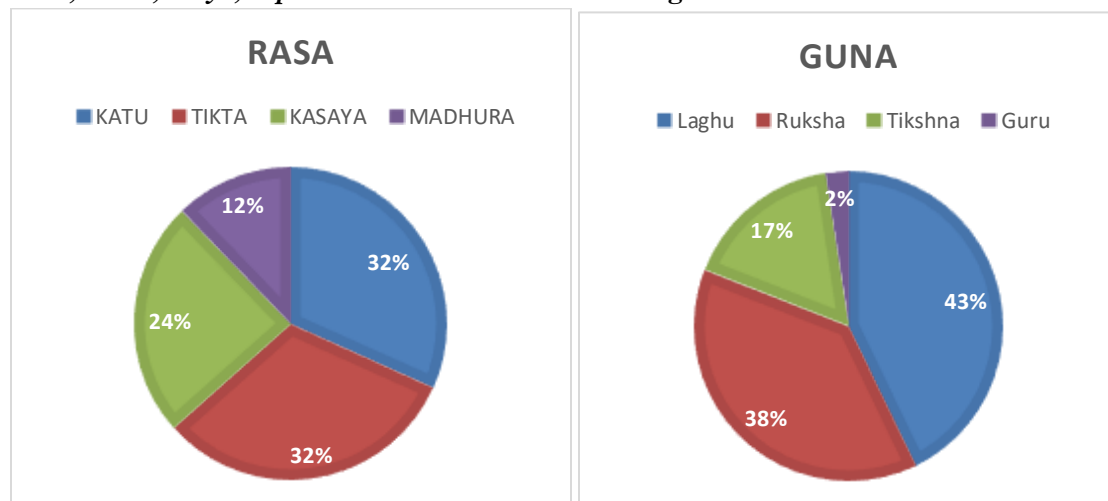
9	<i>Kushta</i>	1 Pala
10	<i>Haritaki</i>	1 Pala
11	<i>Vibhitaki</i>	1 Pala
12	<i>Amalaki</i>	1 Pala
13	<i>Haridra</i>	1 Pala
14	<i>Daruharidra</i>	1 Pala
15	<i>Danti</i>	1 Pala
16	<i>Chavya</i>	1 Pala
17	<i>Kutaja</i>	1 Pala
18	<i>Katuki</i>	1 Pala
19	<i>Pippalimoola</i>	1 Pala
20	<i>Mustaka</i>	1 Pala
21	<i>Mandhura Bhasma</i>	40 Pala

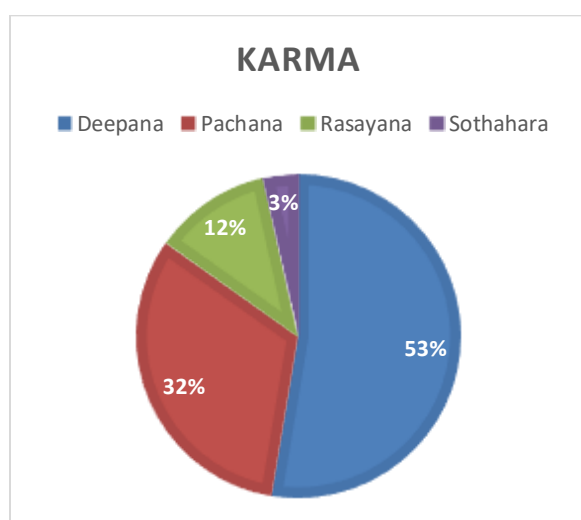
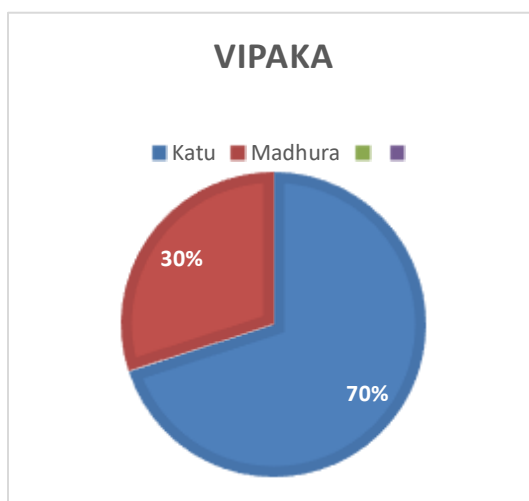
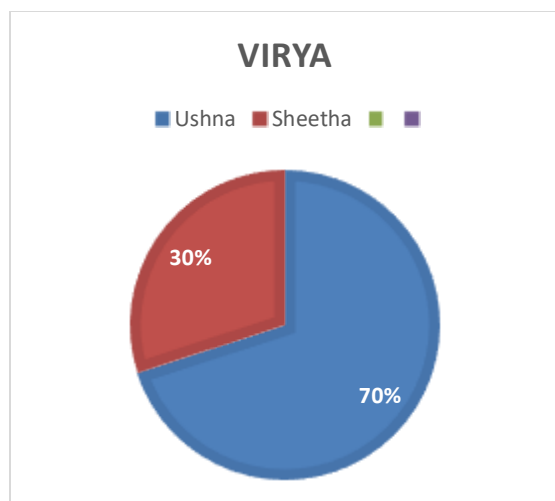
All the above-mentioned drugs should be taken in the specified quantity and cooked with two *Adhaka* of *Gomutra*. When properly cooked and thick, pills of one *Kola* size should be made and they should be given after mixing with a good quantity of butter milk.

Indication: *Pandu, Pliha, Arsha, Vishamajwara, Swayathu, Grahani, Kushta, Krimi*

#### PROBABLE MODE OF ACTION-

*Rasa, Guna, Virya, Vipaka and Karma of Herbal Drugs of Punarnavadi mandura.*





## DISCUSSION

In *Pandu*, there will be *Agni dushti* due to which *Ahara rasa* will not be formed properly which will lead to the formation of *Ama*.<sup>27</sup> *Ama lakshans* are *Balabhramsa, Gowrava, Alasya, Klama, Malasanga, Apakti*, etc.<sup>28</sup> Tiredness, constipation, and heaviness of the body are the main symptoms of Hypothyroidism which can be correlated with the above-mentioned *Ama lakshanas*. So *Ama pachana* and *Agni deepana* is the first and foremost treatment needed in such a condition.

In *Punarnavadi Mandura* Herbal drugs such as *Punarnava, Sunti, Pippali, Maricha, Devadaru, Chitraka, Kushta, Triphala, Haridra, Daruharidra, Danti, Chavya, Kutaja, Katuki, Musta, Pippalimoola* are having *Deepana* action. *Deepana dravyas* in-

crease *Jatharagni*, but they will not be having action in digestion. *Deepana dravyas* are having properties of *Tejomahabhuta, Katu, Amla, Lavana rasa, Ushna virya, Laghu guna, and Tikshna Guna*. *Samana vayu* helps in the function of *Agni* and there by acts as *Deepana*.<sup>29</sup> *Mandura bhasma* is the *Rasa dravya* which is used in more quantity and is having *Madhura rasa, Guru guna, Snigdha guna, and Sheeta virya* qualities but possesses the *Deepana* action. According to the modern concept, stimulation of the vagus nerve leads to the secretion of digestive enzymes. The Vagus nerve will be stimulated by the above-mentioned *Rasas* which induces digestive juices and helps in digestion.<sup>29</sup> *Pachana Dravyas* such as *Pippali, Devadaru, Chitraka, Kushta, Haritaki, Vibhitaki, Daruharidra, Chavya, Kutaja,*

*Pippalimoola, Mustaka* increase the gastric secretions and aids in proper digestion of food. It also stimulates peristalsis of the intestine, increased local blood supply, and increases absorption of nutrients.<sup>30</sup> Thereby reducing the symptoms associated with *Ama* in Hypothyroidism. The vitiated *Vatadosha* displaces vitiated *Raktha, Pitta, and Kapha* into channels of circulation. The *Vayu* is further obstructed by these morbid elements and causes the accumulation of *Raktha, and Pitta Kapha* in between *Twak* and *Mamsa*. The swelling at this region is *Shotha*.<sup>31</sup> *Dravyas* such as *Trivrut, Sunti, Vidanga, Devadaru, Chitraka, Vibhitaki, Haridra, daruharidra, Danti, Kutaja, Katuki and Mandura bhasma* helps to reduce edema present in Hypothyroidism. Coming to the analysis of *Rasa*, here most of the drugs are *Katu* and *Tikta rasa pradhana* which act as *Deepana, and Pachana* and helps in absorption. *Katu* *rasa* causes *Margan vivrnti*, clears and dilates the passage, and alleviates the *Kapha*.<sup>32</sup> *Tikta rasa* act as *Lekhana* and dries the *Medas*.<sup>33</sup> *Kashaya rasa* causes *Kledha medha soshana, and Lekhana* action.<sup>34</sup> Even though in herbal drugs these *Rasas* are predominant, the *Mandura bhasma* which is in double the quantity possesses *Madhura rasa*. After *Deepana pachana* it helps in *Tarpana, Prinana, Balya, Brahmana, Ksheena kshata sandhana*.<sup>35</sup> Thereby there will be an improvement in the total health of the patient.

*Rasayana* drugs act at the level of *rasa* by improving the nutritional values of *Poshaka rasa* and they act at the level of *Agni*, vitalizing the organic metabolism and leading to an improved structural and functional pattern of tissues. It also acts at the level of *Srotas* which helps for better bioavailability of nutrients to the tissues and improves tissue perfusion. It's also having action at the level of *Ojas* too.<sup>36</sup> In *Pandu* there will be depletion of all *Dhatu*s and *Ojas*, Which can be seen in Hypothyroidism also. So *Rasayana* action is needed in such clinical conditions. The drugs such as *Devadaru, Chitraka, Amalaki, and Daruharidra*, which are having *Rasayana* actions help to achieve the same. *Mandura bhasma* is indicated in *Pandu roga, Kamala, Halimaka, Sosha, Sotha* and *Pliha vridhi*.<sup>26</sup> it is a natural source of iron. Its having

*Madhura rasa, Sheetha virya, Guru, Snigdha guna*. After *Agnideepana* and *Amapachana*, it provides *Prinana, Tarpana Balya Brahmana*, etc and it helps to overcome the symptoms of Hypothyroidism and improves the overall health of the patient.

## CONCLUSION

*Punarnavadi mandura* is having action at the level of *Agni* thereby correcting *Ama dosha* which in turn helps in the proper formation of *Ahara rasa*. Properly formed *Ahara rasa* helps in the formation of *Rasa dhatu* and there by all the other *Dhatu*s and *Ojas*. So, there will be a reduction in the symptoms of Hypothyroidism which is mainly caused by *Agni dushya, Ama*, and improper formation of *Dhatu*s, such as myxoedema, constipation, tiredness, cold intolerance, dry skin, etc. It also acts as *Rasayana* and also by the *Gunas* of *Mandura bhasma*, it not only corrects the *Agni* but also helps in *Tarpana, Prinana, Balya, Bhramana, Jeevana*, etc there by helping in improving the overall health of the patient.

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