



# I J A P C

INTERNATIONAL JOURNAL OF AYURVEDA AND  
PHARMACEUTICAL CHEMISTRY

[www.ijapc.com](http://www.ijapc.com)

E ISSN - 2350-0204

**VOLUME 9**

**ISSUE 1**

**10TH JULY**

**2018**

Greentree Group Publishers

### Therapeutic Effect of *Visha-Upvisha* and its Formulation to Cure the *Khalitya*

Sanchit Jain<sup>1\*</sup>, Anita Sharma<sup>2</sup> and Sheetal Yadav<sup>3</sup>

<sup>1-3</sup>P.G. Deptt. of Agadtanta, National Institute of Ayurveda Jaipur, Rajasthan, India

#### ABSTRACT

In modern era early hair fall has been caused because of various factors like busy schedule (improper *Dinacharya* and *Ritucharya*), pollution, unhealthy diet, hormonal imbalance, stress, faulty hair care, infectious diseases, nervous disorders, toxic substances, injury, and severe radiation. Ayurveda Science has also mentioned the hair loss under the heading of *Khalitya*. According to Ayurveda texts, all the *Ahar* and *Vihar* (diet and lifestyle) which is going to aggravate the *Vata* and *Pitta* (primary) becomes the *nidan* of *Khalitya*. *Acharya Charaka* mentioned that *Tejas* by involving *Vatadi Dosha* when scorches up the scalp, it results in *Khalitya*. According to *Chakrapani* word *Tejas* here denotes *Dehoshma* as well as *Pitta Dosha*<sup>1</sup>. As per other Ayurveda texts, the basic principles of pathogenesis of *Khalitya* include *dushti* of elevated *pitta* along *vata dosha* and *rakta kapha dushti*. The medical term for baldness is alopecia; any type of hair fall is called alopecia. The main victims who are facing the *Khalitya* (hair-fall) are youngsters. As per quotation in *Charak Samhita*, the poison which by nature is destructive of life, if taken in the proper manner, acts as an elixir<sup>2</sup>. So the aim of this study is to elaborate & explore the effect of some *Visha* and *Upvisha dravya* like *Vatsnabh*, *Langli*, *Gunja*, *Snuhi*, *Arka*, *Dhatura* and *Chitrak* etc in the treatment of *Khalitya*. These drugs and its formulation are indicated in *Khalitya* as local application on scalp. These contents have *Laghu*, *Rukhsha*, *Tiksna*, *Katu*, *Ushna*, *Kushthaghna* and *Krimighana* properties can help the breakdown of the pathogenesis of *Khalitya*. Several types of oils and *Lepa* of *vish* and *upvisha* for *Abhyang* (Massage) greatly improve the blood circulation, thus increasing the nutrition of the hair roots & scalp. Thus the *Vish* or *Upvisha* or its formulation is one of the best choices in *Ayurveda* to prevent and cure *Khalitya*.

#### KEYWORDS

*Khalitya*, *Visha-Upvisha* and its formulations etc



**Greentree Group Publishers**

Received 20/06/18 Accepted 03/07/18 Published 10/07/18

## INTRODUCTION

Hair-fall is a universal problem, having affected both sexes of all races. Hair plays an important role in making body externally beautiful. Healthy and good looking long hair makes a person mentally enthusiastic and healthy. The estimated prevalence of alopecia areata is approximately 1 in 1000 people, with a lifetime risk of approximately 2%. For most patients the onset is before the age of 30; however, the disorder may occur at any age. Men and women are equally affected<sup>3</sup>. The magnification of industrialization and urbanization has posed the greater danger due to pollution, contamination of water, air and due to other intrinsic factors. These along with indiscriminate dietary habits like excessive intake of salts, sweets, alkalis, starchy, fried foods, spicy irritant foods such as chilly, mustard, garlic etc. along with alcoholic drinks leads to hair fall. In *Ayurvedic* medical science, gradual falling of hair is termed as *Khalitya*. Multifarious types of oils (chemical oils), shampoos, soaps and pharmaceutical propaganda for promoting hair growth actually make the condition worse. In the present era, there is a no satisfactory answer to this problem. The main aim of this article is to explore the clinical efficacy of various *Visha- Upvisha* and its

formulations describe in *Ayurveda* text to cure the *Khalitya*. As the drug is mentioned in *Visha-Upavisha Varga* and has toxic a profile, so Maharishis have advocated *Sodhansanskara* (purification) before its therapeutic application which reduces the toxicity of these plants and also enhance the potency and efficacy of the drugs, so that it can be used safely.

## AIMS AND OBJECTIVES

1. To re-evaluate the *Khalitya* in various classical *Ayurvedic* literature.
2. To elaborate and discuss the role of *Visha- Upvisha* and its formulations in *Khalitya*.

## MATERIALS AND METHODS

This article is based on a review of *Ayurvedic* texts and research papers. Materials related to *Khalitya* have been collected. *Ayurvedic* texts mainly used in this study are *Brihatriyi*, *Laghutriyi* and other *Ayurvedic* books. We have also referred journals and search various websites to collect information on the relevant topics.

## CONCEPTUAL STUDY

### DEFINITION

In *Charak Samhita*, the disease *Khalitya* also has been included in *Urdhvajatrugat Roga*<sup>4</sup>. *Acharya Vagbhata* has also

described *Khalitya* in *Shirogata rogas* under the caption of *Urdhavajatrugata Rogas*<sup>5</sup>. In *Sushruta Samhita*, *Acharya Sushruta* elucidates *Khalitya* as a synonym of *Indralupta* and has described it under *Kshudra Roga* along with its pathogenesis in the *Nidanasthana*<sup>6</sup>.

*Acharya Charaka* mentions that *Tejas* by involving *Vatadi Dosha* when scorches up the scalp, results in *Khalitya*. According to *Chakrapani* word *Tejas* here denotes *Deha Ushma* as well as *Pitta Dosha*<sup>7</sup>.

In *Sushruta Samhita*, this disease is described as “*Khalitya*” or “*Indralupta*” or “*Rujya*”. According to *Acharya Sushruta*, *Pitta* along with *Vata* by involving the roots of hair (*rom-koopaa*) causes fall of hairs and thereafter *Shleshma* along with *Rakta* obstructs the channel of the *rom-koopaa* leading to the stoppage of regeneration of the hair<sup>8</sup>.

*Acharya Vagbhatta* differentiated *Indralupta* and *Khalitya* by saying that in *Khalitya*, loss of hair occurs gradually that in *Indralupta*, pathology is common in both<sup>9</sup>.

### **NIDANA (Causative Factors)**

The first and foremost line of treatment in almost all diseases is *Nidana Parivarjana*. Hence, *Nidana* plays a role of utmost importance in the perspective of the treatment. Each and every disease is having its own *nidana*. Etiology of

*Khalitya* is mentioned in different diseases and an indirect way at various places. The specific etiological factors mentioned in various places by *Acharyas* is described are as follows in table 1.

**Table 1** The specific etiological factors of *Khalitya*:

<b>The specific etiological factors of khalitya mentioned in Ayurveda</b>	
1. <i>Lavanrasaatisevan</i> <sup>10,11</sup>	4. <i>Ushar Bhoomi</i> <sup>12</sup>
2. <i>Ksharaatisevan</i> <sup>13</sup>	5. <i>Dusta-Pratisyaya</i> (Pernicious Rhinitis) <sup>14</sup>
3. <i>Pitta dosha dominance</i> <sup>15</sup>	6. Taking of excess <i>Lavan</i> during pregnancy <sup>16</sup>

### **1. LAVANRASA ATISEVAN:**

Too much use of *Lavan Rasa* results in *Kaphavriddhi*. It leads to *Agnimandya* and obstruction of *Srotas*. This in turn leads to *Pittavriddhi*. Thus due to *Kaphapitta vriddhi*, there is obstruction of *Romakupas* due to which proper *Keshotpatti* does not take place and due to obstruction of *Srotasa*, these are malnutrition of *Kesh*, resulting in *Khalitya*.

### **2. KSHARA SEVAN:**

Excessive use of *Kshara* leads to *Pitta prakopa* due to its *Usna* and *Tikshna Guna*. The *Sthansamshraya* of this *Pitta* takes place in the scalp i.e. *Shirogata Keshabhoomi*. This leads to obstruction of *Srotasa* thus resulting in *Prakopa* of *Vata*, *Pitta* and *Kapha* resulting in *Khalitya*.

### **3. PITTA DOSHA DOMINANCE:**

As per *Acharyas Charaka* and *Acharya Sushruta*, *Pitta dosha* is responsible for *Khalitya*. *Acharyas* have described common and specific etiological factors for *Khalitya*. A comparative study of these factors reveals that importance is given to *Acharanas* and psychological factors along with the *Ahara* and *Viharaja nidana*.

#### 4. USHAR BHOOMI:

Food and water found in this type of soil contain large amounts of *Lavana* and *Kshara*. Hence, people staying in this region are more prone to *Khalitya*.

#### 5. DUSTA-PRATISYAYA

##### (PERNICIOUS RHINITIS):

If all *Pratisyaya* get excessively aggravated due to the negligence of appropriate treatment or due to the intake of unwholesome food, then this leads to *Dusta-Pratisyaya*. As a result of this, the disease of the head like *Khalitya* is caused.

#### 6. Taking of excess *Lavan* during pregnancy<sup>17</sup>

As per *Acharya Vagbhata*, taking of excess *Lavan rasa* during pregnancy would be result in congenital hair loss (*Khalitya*).

#### PURVARUPA

Clinically, this is important for early diagnosis, treatment and prognosis. No specific *Purvarupa* has been mentioned for *Khalitya* in the classical texts, but we can interpret the *Purva Rupa* of *Khalitya* the

initial occurrence of hair fall where the hair fall just started and the number of hair fall is moderate.

#### RUPA

The features / *Rupa* will indicate the manifestation of the disease. These are the signs and symptoms of the disease. *Rupa* (sign & symptoms) of *Khalitya* is concerned very little explanation is found in *Ayurveda* classics. Thus the cardinal symptom of *Khalitya* is a gradual loss of hair. *Ashtang Samgrahakara* has classified *Khalitya* in four types & its symptoms which are as follow in table 2:

**Table 2** Types of *Khalitya* as per *Acharya Vagbhata*<sup>18</sup>

Types of <i>Khalitya</i>	<i>Rupa</i> (sign & symptoms)
1. <i>Vataja Khalitya</i>	<i>Keshbhoomi</i> seems as <i>Agnidagdha</i> .
2. <i>Pittaja Khalitya</i>	The scalp seems as surrounded by the <i>Siras</i> (veins). Sweat may be found all over the scalp.
3. <i>Kaphaja Khalitya</i>	The color of the scalp is more or less same as the color of skin but here it appears as <i>Ghana</i> and <i>Snigdha</i> .
4. <i>Tridoshaja Khalitya</i>	Features of all the three <i>Doshas</i> are observed. The scalp appears as burnt and it seems nail like appearance.

*Acharya Harita* has mentioned this disease by the name of *Keshaghna* and denoted one additional type of *Khalitya* that is *Raktaj Khalitya*. According to *Acharya Harita* the signs and symptoms of *Khalitya* described as follows in table 3

**Table 3** Types of *Khalitya* as per *Acharya Harita*<sup>19</sup>:

Types of <i>Khalitya</i>	<i>Rupa</i> (sign & symptoms)
1. <i>Vataja Khalitya</i>	<i>Ruksha</i> and <i>Pandura</i> scalp
2. <i>Pittaja Khalitya</i>	Red and burnt scalp
3. <i>Kaphaja Khalitya</i>	<i>Snigdha</i> scalp
4. <i>Raktaj Khalitya</i>	<i>Sapaka</i> ( Pus )
5. <i>Sannipataja Khalitya</i>	All characters of 3 <i>dosha</i>

## SAMPRAPTI

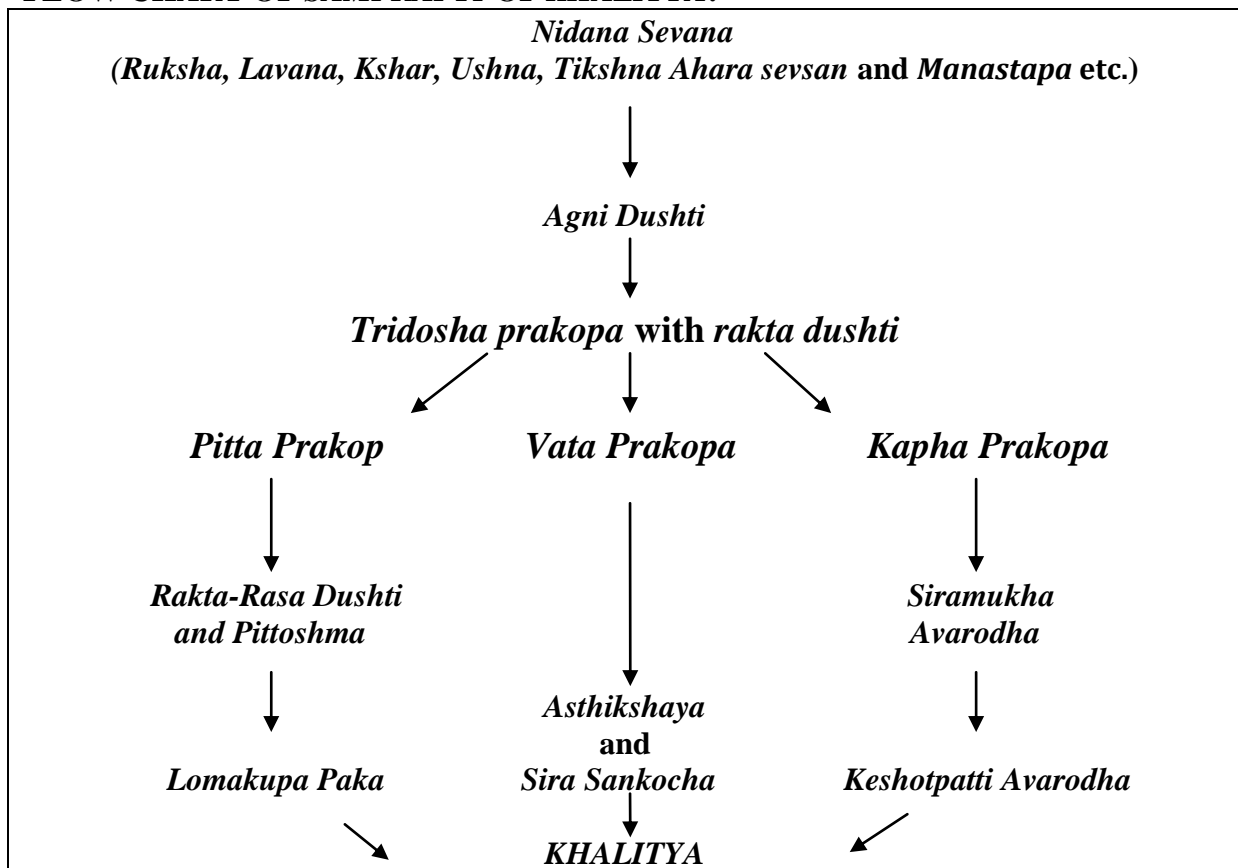
The whole process initiating from intake of *Nidana* to the complete manifestation of the disease is known as *Samprapti*. *Samprapti* can be defined as, the continuous changes accompanying a disease process in the body from *dosha dushti* till the manifestation of *lakshanas*. The description of *Samprapti* of *Khalitya* according to the various texts of *Ayurveda* may be summarized as under:

*Acharya Charaka* stated that *Tejas* combining with *Vatadi doshas* reaches the *Shira Kapala* and burns out the hair follicle and produces *Khalitya* in a person<sup>20</sup>. Thus, *Acharya Charaka* has

evolved the involvement of all the two *Doshas* viz. *Vata, Pitta* in the occurrence of *Khalitya*. *Kapha Dosha* is not considered in this *Samprapti*.

*Acharya Sushruta* says that “The *Pitta*, vitiated by its own factors penetrates into the *Romakoopa* and there it unites with the *Vata* to shatter the hair”. Then the *Shleshma* along with the *Shonita* obstructs the *Romakoopa* which leads to the stoppage of regeneration of hair<sup>21</sup>. Thus, *Acharya Sushruta* has considered the involvement of all the three *Doshas* viz. *Vata, Pitta* and *Kapha* along with *Shonita* in the occurrence of *Khalitya*.

### FLOW CHART OF SAMPRAPTI OF KHALITYA:



## SAMPRAPTI GHATAKA :

### 1. Dosha :

Pitta - Pachaka, Bhrajaka

Vata - Saman, Vyan

Kapha - Tarpaka

### 2. Dushya: Dhatu - Asthi, Rasa, Rakta

Mala - Sweda, Kesh

### 3. Srotasa: Asthivaha, Rasavaha, Raktavaha, Swedavaha, Manovaha.

### 4. Srotodusti: Sanga

### 5. Agni: Jatharagni, Rasagni

### 6. Rogamarga: Bahya

### 7 Adhithana:Keshabhoomi

## MANAGEMENT

There are many *Visha-Upvisha dravya* and its formulations to treat *Khalitya* describes in *Ayurveda* texts which are as follow in table 4 and 5:

**Table 4** Classical oil formulations of *Visha-Upvish* for external application in *Khalitya*:

Sr. no.	Name of Visha & Upvisha	Type of poisons	Classical oil formulations for external application
1.	Vatsnabh	Visha	Snuhayadi Tailam <sup>22</sup> ,
2.	Langli	Upvisha	Snuhayadi Tailam,
3.	Gunja	Upvisha	Gunjadi Tailam <sup>23</sup> , Snuhayadi Tailam, Bhringraj Tailam <sup>24</sup>
4.	Snuhi	Upvisha	Snuhayadi Tailam
5.	Arka	Upvisha	Snuhayadi Tailam
6.	Karveer	Upvisha	Karanjadi Taila <sup>25</sup> , Malyadi Tailam <sup>26</sup> , Kutannatadi Tailam <sup>27</sup> , Jatyadi Tailam <sup>28</sup>
7.	Bhallataka	Upvisha	Bhallatakadi Tailam <sup>29</sup> ,
8.	Chitraka	Sthavar Visha	Malyadi Tailam, Kutannatadi Tailam, Jatyadi Tailam, Chitrakadhya Tailam <sup>30</sup> , Karanjadi Tailam

**Table 5** Classical *Lepa* formulations of *Visha-Upvish* for external application in *Khalitya*:

Sr. no.	Name of Visha & Upvisha	Types of Poisons	Classical Lepa formulations for external application
1.	Vatsnabh	Visha	Gunjadi Lepa <sup>31</sup> ,
2.	Langli	Upvisha	Langali mula Lepa <sup>32</sup>
3.	Gunja	Upvisha	Gunjadi Lepa, Gunjamoool Lepa <sup>33</sup> , Gunjaphal Lepa <sup>34</sup> , Gunjamooolphal Lepa <sup>35</sup>
4.	Dhatura	Upvisha	Dhaturadi Lepa <sup>36</sup> , Dhaturapatra Rasa Lepa <sup>37</sup>
5.	Bhallataka	Upvisha	Bhallatakadi Lepa <sup>38</sup> , Tiladi Lepa <sup>39</sup> ,
6.	Arka	Upvisha	Tiladi Lepa
7.	Arsenic	Sthavar Dhatu Visha	Marichyadi Lepa <sup>40</sup> , Kasisadi Lepa <sup>41</sup>
8.	Snake Poison	Jangam Visha	Sarpa Kshara Lepa <sup>42</sup>

## DISCUSSION

There are so many other factors *Matra*, *Kala*, *Kriya*, *Bhumi*, *Deha*, *Dosha*,

*Gunantra* which can modify the effect of poison. But doses, combination and *Yuktiyuktatva* are key factors which may

modify the effect of *Visha* equal to *Amrita* and the effect of *Bhesaj* may term equal to *Teekshna Visha*, therefore the combination of various *Dravya* and *Yukti* becomes most important as stated by *Agnivesh*<sup>43</sup>. So, poisonous drugs prove more efficacious than normal prescription drugs due to their inherent properties.

*Khalitya* is a disease of *Pitta dosha* involving with *Vata* thereafter *Shleshma* along with *Shonita* obstructs the channel of the *Rom-koopaa* leading to the stoppage of regeneration of the hair<sup>44</sup>. Thus this stage needs *Uddipan* and *Lekhana karma* to combat the local action of *Kaphadosha*. According to the modern concept of regeneration and growth of hair with reference to this disease, one of the modes of local treatment suggests the need of activation of the hair follicles through prompting of mild irritant drugs. *Vatsnabh*, *Langli*, *Gunja*, *Snuhi*, *Arka*, *Dhatura*, *Karveer*, *Bhallataka* and *Chitrak* etc is a local irritant. As irritants, accelerate the intracellular activities that might have relation with stimulation of regrowth of hair. Due to their *Ruksha*, *Tikshana*, *Laghu*, *Ushna* and *Sookshma Srotoganni* property clears the obstructions of hair roots leading the *Roma-Koopaa* *Vishodhana*. These *Visha-Upvisha* and its formulations like oil and *Lepa* for *Abhyanga* (massage) greatly improve the

blood circulation and promotes the absorption of the drug, thus increasing the nutrition of the hair roots and scalp.

These drugs having *Laghu*, *Ruksha* and *Sukhma guna*, *Tikta* and *Katu Rasa*, *Katu Vipaka* and *Ushna Virya* which is intended to have a *Tridoshashamak* effect. *Vishaghna*, *Kandughna* and *Jantughna* properties of these drugs remove the local infection and help in checking the hair fall and thus help in the cessation of the further process of *Khalitya*.

## CONCLUSION

From all this, it can conclude that in *Ayurveda* various *Visha- Upvisha dravya* which is indicated in *Khalitya* (Hair-Fall) has a strong possibility to break down the pathogenesis. Various researchers also proved the effectiveness of *Visha- Upvisha dravya* and its formulations to treat *Khalitya*. So formulations prepared by these poisonous plants are more efficacious and fast acting.



## REFERENCES

1. Kashinatha shastri and Dr. Gorakhanatha chaturvedi ed. Charaka samhita-I Chikitsasthan, 26/132, chaukhambha Bharati Academy, Varanasi, reprint-2012,
2. Kashinatha shastri and Dr. Gorakhanatha chaturvedi ed. Charaka samhita-I Chikitsasthan, 24/60, chaukhambha Bharati Academy, Varanasi, reprint-2012,
3. Downloaded on dated 11-05-2018 from  
<https://www.uptodate.com/contents/clinical-manifestations-and-diagnosis-of-alopecia-areata>, Clinical manifestations and diagnosis of alopecia areata,
4. Kashinatha shastri and Dr. Gorakhanatha chaturvedi ed. Charaka samhita-II Chikitsasthan, 26/133, chaukhambha Bharati Academy, Varanasi, reprint-2012, p;744.
5. Kaviraja Atrideva Gupt, Astanga Hridaya-Uttartantra, 23/24-25, Chaukhamba publication, Varanasi, reprint-2012, p;728.
6. Ambikadatta Shastri, SushrutaSamhita, Nidana sthan-13, Chaukhamba Sanskrit Sansthan, Varanasi, reprint-2012,
7. Kashinatha shastri and Dr. Gorakhanatha chaturvedi ed. Charaka samhita-I Chikitsasthan, 26/132, chaukhambha Bharati Academy, Varanasi, reprint-2012,
8. Ambikadatta Shastri, Sushruta Samhita, Nidana sthan-13/32-33, Chaukhamba Sanskrit Sansthan, Varanasi, reprint-2012,
9. Ambikadatta Shastri, Sushruta Samhita, Nidana sthan-13/32-33, Chaukhamba Sanskrit Sansthan, Varanasi, reprint-2012, Kaviraja Atrideva Gupt, Astanga Samgraha-, Uttar-Tantra-27/19, Chaukhamba KrishnadAcademy, Varanasi, reprint-2011,
10. Kashinatha shastri and Dr. Gorakhanatha chaturvedi ed. Charaka samhita-I Sutra sthan 26/43.3 and Vimana sthan, 1/18, chaukhambha Bharati Academy, Varanasi, reprint-2012,
11. Dr. Brahmanand Tripathi, Astanga Hridaya,,Sutra- sthan 10/12-13, Chaukhamba Sanskrit Pratishtan, Varanasi, reprint-2011,
12. Kashinatha shastri and Dr. Gorakhanatha chaturvedi ed. Charaka samhita-I Vimana sthan, 1/18, chaukhambha Bharati Academy, Varanasi, reprint-2012,
13. Kashinatha shastri and Dr. Gorakhanatha chaturvedi ed. Charaka samhita-I Vimana sthan, 1/17, chaukhambha Bharati Academy, Varanasi, reprint-2012,
14. Kashinatha shastri and Dr. Gorakhanatha chaturvedi ed. Charaka samhita Chikitsasthan, 26/109, chaukhambha Bharati Academy, Varanasi, reprint-2012,

15. Kashinatha shastri and Dr. Gorakhanatha chaturvedi ed. Charaka samhita-I Vimana sthan, 8/97, chaukhambha Bharati Academy, Varanasi, reprint-2012,
16. Kaviraja Atrideva Gupt, Astanga Samgraha-I, Sharir sthana, 2/61, Chaukhamba Krishnadas Academy, Varanasi, reprint-2005, p;280-281.
17. Kaviraja Atrideva Gupt, Astanga Samgraha-I, Sharir sthana, 2/61, Chaukhamba Krishnadas Academy, Varanasi, reprint-2005, p;280-281.
18. Kaviraja Atrideva Gupt, Astanga Samgraha-, Uttar-Tantra-27/20 Chaukhamba KrishnadAcademy,Varanasi, reprint-2011,
19. Harita Samhita, Tritiya sthanam, 43/1-256Kashinatha shastri and Dr. Gorakhanatha chaturvedi ed. Charaka samhita-I Vimana sthan, 1/18, chaukhambha Bharati Academy, Varanasi, reprint-2012,
20. Kashinatha shastri and Dr. Gorakhanatha chaturvedi ed. Charaka samhita Chikitsasthan, 26/132, chaukhambha Bharati Academy, Varanasi, reprint-2012,
21. Ambikadatta Shastri, SushrutaSamhita, Nidana sthan-13/32-33, Chaukhamba Sanskrit Sansthan, Varanasi, reprint-2012,
22. Dr.Indradeva Tripathi, Chakradutta Hindi Translation, Kshudraroga Chikitsa, 55/104-106, Chaukhambha Sanskrita Bhavan, Varanasi, reprint-2014, p;321.
23. Pandit Harihar Parsad Tirpathi, Vangsen Samhita, Kshudraroga-adhikara , 32/130, Chaukhamba Sanskrit Series office, Varanasi, reprint-2009, p;395.
24. Dr.Premvati Tewari, Vrndamadhava or Siddha Yoga, Kshudraroga-adhikara, 57/104, Chaukhambha Visvabharati, Varanasi, reprint-2007, p;530.
25. Dr.Brahmanand Tripathi, Sharangadhara Samhita, Madhyam Khand 9/156, Chaukhambha Surbharati Publication, Varanasi, reprint-2010, p;240.
26. Dr.Indradeva Tripathi, Chakradutta Hindi Translation, Kshudraroga Chikitsa, 55/94, Chaukhambha Sanskrita Bhavan, Varanasi, reprint-2014, p;319.
27. Dr.Indradeva Tripathi, Chakradutta Hindi Translation, Kshudraroga Chikitsa, 55/96, Chaukhambha Sanskrita Bhavan, Varanasi, reprint-2014,p;320.
28. Dr. Indradeva Tripathi & Dr. Daya Shankar Tripathi, Yogaratnakara, Kshudraroga Nidanam Chikitsa Prakarnam, Krishnadas Academy, Varanasi, reprint-1998, verse-101, p;700.
29. Prof.Siddhi Nandan Mishra, Rasaratna Samuchchayah, Shiroroga Chikitsa, 24/85-86, Chaukhambha Orientalia, Varanasi, reprint-2011, p;573.
30. Dr.Premvati Tewari, Vrndamadhava or Siddha Yoga, Kshudraroga-adhikara, 57/103, Chaukhambha Visvabharati, Varanasi, reprint-2007, p;530.

31. Pandit Harihar Parsad Tirpathi, Vangsen Samhita, Kshudraroga Chikitsa, 32/141, Chaukhamba Sanskrit Series office, Varanasi, reprint-2009, p;396.
32. Kaviraja Atrideva Gupt, Astanga Samgraha- II, Uttartantra 28/35, Chaukhamba Krishnadas Academy, Varanasi, reprint-2011, p;292.
33. Dr.Premvati Tewari, Vrndamadhava or Siddha Yoga, Kshudraroga-adhikara, 57/109, Chaukhambha Visvabharati, Varanasi, reprint-2007, p;531.
34. Dr.Indradeva Tripathi, Chakradutta, Hindi Translation, Kshudraroga Chikitsa, 55/97, Chaukhambha Sanskrita Bhavan, Varanasi, reprint-2014, p;320.
35. Dr.Indradeva Tripathi, Chakradutta Hindi Translation, Kshudraroga Chikitsa, 55/99, Chaukhambha Sanskrita Bhavan, Varanasi, reprint-2014,
36. Pandit Harihar Parsad Tirpathi, Harita Samhita, Tertiya sthanam, 43/9-10, Chaukhamba Krishnadas Academy, Varanasi, reprint-2009, p;433.
37. Dr. Brahmanand Tripathi, Astanga Hridaya, Uttartantra, 24/30, Chaukhamba Sanskrit Pratishthan, Varanasi, reprint-2011, p;1060.
38. Dr.Indradeva Tripathi, Chakradutta, Hindi Translation, Kshudraroga Chikitsa, 55/99, Chaukhambha Sanskrita Bhavan, Varanasi, reprint-2014, p;320.
39. Pandit Harihar Parsad Tirpathi, Harita Samhita, Tertiya sthanam, 43/12-13, Chaukhamba Krishnadas Academy, Varanasi, reprint-2009, p;433.
40. Pandit Harihar Parsad Tirpathi, Vangsen Samhita, Kshudraroga Chikitsa, 32/136, Chaukhamba Sanskrit Series office, Varanasi, reprint-2009, p;395.
41. Dr. Brahmanand Tripathi, Astanga Hridaya, Uttartantra, 24/28, Chaukhamba Sanskrit Pratishthan, Varanasi, reprint-2011, p;1060.
42. Pandit Harihar Parsad Tirpathi, Harita Samhita, Tertiya sthanam, 43/12-13, Chaukhamba Krishnadas Academy, Varanasi, reprint-2009, p;433.
43. Kashinatha shastri and Dr. Gorakhanatha chaturvedi ed. Charaka samhita-I Sutra sthan, 1/127, chaukhambha Bharati Academy, Varanasi, reprint-2012,p;49
44. Ambikadatta Shastri, Sushruta Samhita, Nidana sthan-13/32-33, Chaukhamba Sanskrit Sansthan, Varanasi, reprint-2012,p;368