

## A CLINICAL STUDY TO EVALUATE THE EFFICACY OF TRIPHALADI TAILA IN THE MANAGEMENT OF DARUNAKA W.S.R. TO DANDRUFF AND SEBORRHEIC DERMATITIS

Chetan Singh<sup>1</sup>, Surendra Kumar Sharma<sup>2</sup>, Sisir kumar Mandal<sup>3</sup>

<sup>1</sup>PG. Scholar III<sup>rd</sup> Year; <sup>2</sup>Professor; <sup>3</sup>Assistant Professor;  
P.G. Department of *Roga Nidana Evam Vikriti Vigyana*, NIA, Jaipur, Rajasthan, India

Email: [drchetanism80@gmail.com](mailto:drchetanism80@gmail.com)

### ABSTRACT

Dandruff is a skin disorder that mainly affects the scalp. Dandruff is the most common scalp disorder in adolescence (post-pubescence) and adulthood, but is rare and mild in children. It is characterized by flakes, itching, dryness and hair fall and in *Ayurveda*, it is due to the vitiation of *vata* and *kapha dosha*. This disease has a high prevalence rate and frequent relapses. Dandruff is found to affect 50% of the world population. In *Ayurveda* the nearest correlation of dandruff can be made with “*Darunaka*”. *Darunaka* is the non-inflammatory type of Seborrheic dermatitis. It is a disease concerned to hair root which is the most common cause for hair loss. Keeping all these facts in the background, the present clinical study is designed to evaluate the effect of classical *yoga* described by the *Acharya* in their respective texts for the management of *Darunaka* which is– *Triphaladi taila*. The study was conducted in 30 clinically diagnosed patients having classical sign and symptoms of *Darunaka*. The Group was comprised of 30 patients administered with *Triphaladi taila* (ext. application) for 30 days. The study design was prospective, open label and interventional. From the observations and results it can be concluded that drug shows highly significant results in almost all the classical signs and symptoms of *Darunaka* very effectively.

**Keywords:** *Darunaka*, Dandruff, Seborrheic Dermatitis, *Triphaladi taila*.

### INTRODUCTION

*Ayurveda* is one of the most ancient systems and holistic health science of life, health and care donated to humanity by the perfect Indian heritage. There are nineteen diseases described by *acharya Vagbhatt* in *shiroroga pratishedha adhyaya*, they are 9 *kapala Roga*<sup>1</sup> and 10 *shiroroga*<sup>2</sup>. According to *acharya Vagbhatt*<sup>3</sup> and *Acharya Sarangadhara*<sup>4</sup>. *Darunaka* is a *kapalagataroga* but *Sushruta*<sup>5</sup> and other *Acharya* explained this disease under *kshudra Roga*.

*Vagbhatt* has described this disease in the *shiroroga*, the 23<sup>rd</sup> chapter of *Uttar Tantra*<sup>6</sup>. *Acharya Sushruta* mentioned about this disease in *Nidana Sthana* chapter 13, *kshudraroga*<sup>7</sup>. *Acharya Charaka* has not mentioned the disease directly; however, in the 26<sup>th</sup> chapter of *chikitsasthana*, *Samprapti* of *Darunaka* is given in *sirah kapalagataroga*<sup>8</sup> without naming. *Madhavanidana*<sup>9</sup> has mentioned this disease in chapter 55 of second part named *kshudrarogaprakaran*.

In *Sarangadhara samhita*, the disease is mentioned in the 7<sup>th</sup> chapter of 1<sup>st</sup> khanda. In *Bhava prakasha*, *Darunaka* is described in *Kshudraroga adhikar*<sup>10</sup>. Dandruff is a skin condition that mainly affects the scalp<sup>11</sup>. Dandruff is the most common scalp disorder in adolescence (post-pubescence) and adulthood, but is rare and mild in children<sup>12</sup>. Historically, it was thought that about 50% of humans were affected to some degree, with onset at puberty and peak incidence and severity at about 20 years of age and becoming less frequent after the age of 50.<sup>13</sup> Dandruff and Seborrheic Dermatitis are common disorders affecting the scalp that is often associated with itching<sup>14</sup> and can be an embarrassing condition. These two diseases have a high prevalence rate and frequent relapses. Dandruff is found to affect 50% of the world population. In *Ayurveda* the nearest correlation of dandruff and Seborrheic dermatitis can be made with “*Darunaka*”. *Darunaka* is the non-inflammatory type of Seborrheic dermatitis. It is a disease concerned to hair root which is the most common cause for hair loss.

*Darunaka* is characterized by *Tvak sphutana* (scaling of the scalp) *kandu* (itching), *Rukshata* (dryness and roughness of scalp), *keshachyuti* (diffuse hair falling), *daruna* (difficulty in tolerance), *svapa* (loss of touch sensation) and all these symptoms are due to vitiation of *vata and kapha dosha*.

#### **AIM AND OBJECTIVE:**

To evaluate the efficacy of *Triphaladi taila* in the management of *Darunaka* w.s.r to Dandruff and Seborrheic Dermatitis.

#### **MATERIAL AND METHOD:**

**Selection of the patients:** In this study the patients presenting with *Darunaka* (Dandruff and Seborrheic

Dermatitis) registered from OPD and IPD of NIA Hospital, Satellite and Bombaywala Hospitals and outreach camps organized by NIA was taken. The selection of cases was done on the clinical features and supported by laboratory findings. In this study non-inflammatory type of seborrheic dermatitis patients were taken into considerations. A written information and consent form had been given to the patients. The patients were explained about the purpose, procedures and possible side-effects of the trail. Total 30 patients were registered for the study and had completed the trial.

#### **SELECTION CRITERIA:**

##### **(a) Inclusion criteria:**

1. Male or female between age 16 to 70 years and willing to give their written informed consent.
2. No major systemic disease involved.
3. Patients who have signs and symptoms of *Darunaka*. (Dandruff and Seborrheic Dermatitis)

##### **(b) Exclusion criteria:**

1. Patients having other skin diseases like psoriasis, atopic dermatitis, pregnancy, lactation, immunodeficiency states and hypersensitivity.

#### **Assessment criteria:**

##### **Subjective Parameters**

The assessment will be done on the basis of following parameters according to Proforma.

1. *Tvak sphutana* (Scaling or Flakes)
2. *Kandu* (Itching)
3. *Kesha bhumi rukshata* (Dryness)
4. *Keshachyuti* (Hair fall)
5. *Daruna* (difficulty in tolerance)
6. *Svapa* (loss of touch sensation)

##### **Objective Parameters:**

CBC, ESR, FBS/RBS, TEC.

##### **Trail Drug:**

**Table 1: Triphaladi Taila<sup>15</sup> (Bh.R.Kshudraroga chikitsa 55/126)**

S. No	Name of the constituent	Botanical Name	Part used	Ratio
1.	<i>Amalaki</i>	<i>Embllica Officinalis</i> Gaertn.	Fruit	1 part
2.	<i>Haritaki</i>	<i>Terminalia Chebula</i> Retz.	Fruit	1 part
3.	<i>Bibhitaka</i>	<i>Terminalia Bellerica</i> Roxb.	Fruit	1 part
4.	<i>Bhringaraja</i>	<i>Eclipta alba</i> Hassk.	<i>Panchanga</i>	1 part
5.	<i>Nila kamala</i>	<i>N. stellate</i> willd	<i>Pushpa</i>	1 part
6.	<i>Anantamula</i>	<i>Hemidesmus indicus</i> R.Br.	<i>Mula</i>	1 part
7.	<i>Loha Bhasma</i>	Iron		1 part
8.	<i>Saindhava Lavaṇa</i>	Rock salt		1 part
9.	<i>TilaTaila</i>	<i>Sesamum indicum</i> Linn.		4 parts

- **Dose** – 10-15 ml.
- **Duration** - One month daily.
- **Route of administration**- Local application on head (*shiroabhyanga*).

**RESULTS:**

Results of the treatment will be tabulated and analyzed statistically with relevant tests and level of significance was reported by using Graph Pad Instat

(version 3.10, 32 bit for windows created July 10, 2009). Paired ‘t’ test was used for the parametric data and Wilcoxon matched pair rank test for non-parametric data in individual groups.

**Table 2: Effect of Triphaladi Taila on Subjective parameters: (Wilcoxon matched paired single ranked test)**

Symptoms	N	Mean		Diff.	% of Change	±SD	SE	T	P
		BT	AT						
<i>Tvak sphutana</i>	30	2.900	0.600	2.30	79.31	0.6513	0.118	19.49	<0.0001
<i>Kandu</i>	30	2.367	0.266	2.10	88.71	0.7589	0.1385	15.16	<0.0001
<i>Keshabhumi rukshata</i>	30	2.10	0.33	1.76	83.80	0.7279	0.1329	13.24	<0.0001
<i>Keshachyuti</i>	30	2.73	0.76	1.96	71.79	0.6687	0.1221	16.05	<0.0001
<i>Daruṇa</i>	30	1.66	0.133	1.533	91.96	0.5074	0.092	16.66	<0.0001
<i>Svapa</i>	30	0.800	0.066	0.733	91.62	0.5833	0.1065	6.88	<0.0001

Effect of *Triphaladi Taila* was found highly significant (p<0.0001) on *Tvak sphutana*, *Kandu*, *Kesha bhumi rukshata*, *Keshachyuti*, *Daruṇa* and *Svapa*.

Effect of therapy had reduced the *Tvak sphutana* by

79.31%, *Kandu* by 88.71%, *Keshabhumi rukshata* by 83.80%, *Keshachyuti* by 71.79 %, *Daruṇa* by 91.96 %, *Svapa* by 91.62% which was statistically highly significant (p<0.0001).

**Table 3: Effect of Triphaladi Taila on objective parameters: (paired ‘t’ Test)**

Variable	N	Mean		Diff.	±SD	SE	T	P	S
		BT	AT						
<b>HB</b>	30	13.75	13.75	0	0.4402	0.0803	0	0.9999	NS
<b>TLC</b>	30	7366.7	7330.0	36.667	238.51	43.545	0.8420	0.4067	NS
<b>ESR</b>	30	7.900	8.133	-0.233	1.331	0.2430	0.9603	0.3449	NS
<b>Neutro</b>	30	56.133	55.900	0.2333	1.194	0.2181	1.070	0.2934	NS
<b>Lympho</b>	30	34.833	34.167	0.6667	2.264	0.4134	1.613	0.1176	NS
<b>Eosino</b>	30	3.700	3.267	0.433	1.478	0.2699	1.602	0.1192	NS

<b>Mono</b>	30	5.300	5.400	-0.100	1.863	0.3402	0.2939	0.7709	NS
<b>Baso</b>	30	0	0	0	0	0	0	0	-
<b>TRBC</b>	30	4.686	4.611	0.0750	0.2068	0.0377	1.987	0.0565	NS
<b>TPLC</b>	30	2.365	2.398	-0.032	0.1703	0.0310	1.051	0.3021	NS
<b>TEC</b>	30	230.77	230.20	0.5667	2.515	0.4591	1.234	0.2270	NS
<b>PCV</b>	30	42.330	42.407	-0.076	0.1251	0.2284	3.357	0.0022	S
<b>MCV</b>	30	89.653	89.570	0.0833	0.2379	0.0434	1.918	0.0650	NS
<b>MCH</b>	30	89.653	89.883	-0.230	0.7544	0.1377	1.670	0.1057	NS
<b>MCHC</b>	30	32.443	32.653	-0.210	1.682	0.3070	0.6840	0.4994	NS
<b>RBS</b>	30	94.633	94.233	0.4000	3.201	0.5845	0.6844	0.4992	NS

In this study, it was observed that almost all the objective parameters showed statistically non significant results i.e. ( $p \geq 0.05$ ) except PCV which showed significant result.

**Table 4:** Showing the overall clinical improvement in all the symptoms in *Triphaladi taila* Group

Sign and Symptoms	Triphaladi taila Group		
	%	P-value	Impression
<i>Tvak Sphutana</i>	79.31	<0.0001	Marked Improved
<i>Kandu</i>	88.71	<0.0001	Complete Remission
<i>Rukshata</i>	83.80	<0.0001	Complete Remission
<i>Keshachyuti</i>	71.79	<0.0001	Marked Improved
<i>Daruna</i>	91.96	<0.0001	Complete Remission
<i>Svapa</i>	91.62	<0.0001	Complete Remission

Complete Remission: 81-100% relief, Marked Improvement: 61-80% relief, Moderate Improvement: 41-60% relief, Mild Improvement: 21-40% relief, Unchanged: < 20%

## DISCUSSION

**Triphaladi Taila:** The ingredients of this Taila are *Amlaki*, *Bibhitaka*, *Haritaki*, *Bhřingaraja*, *Sariva*, *Nilotpala*, *Saindhava lavaņa*, *Lauha bhasma* and *Tila taila*. The properties of *Amlaki* are *guru rasa*, *sheeta virya*, *madhura vipaka*, *tridoshashamaka*. *bibhitaka* having *kashaya rasa*, *ushņa virya*, *madhura vipaka*, *tridořashamaka*. The properties of *Haritaki* are *laghu rasa*, *ushņa virya*, *madhura vipaka*, *tridořashamaka* which are based on its *kusřthaghna* property. The *nilotpala* is having *kashaya*, *madhura*, *tikta rasa*, *laghu*, *snigdha*, *picchila guna*, *madhura vipaka* and *kapha pittashamaka*.

The properties of *Bhřingaraja* are *katu tikta Rasa*, *ushņa virya*, *ruksha guna*, *katu vipaka dravya* and *kapha-vatashamaka*. *Sariva* having *tikta*, *madhura rasa*, *guru*, *snigdha guna* and *tridořashamaka*. The

properties of *saindhava lavaņa* are *madhura rasa*, *snigdha guna*, *madhura vipaka* and *tridoshghna*. *Lauha* having *tikta Rasa*, *ushņa virya*, *snigdha guna* and *tridoshahara*. *Tila taila* have *madhura rasa*, *ushņa virya*, *guru guna* and *madhura vipaka*. The *taila* prepared had *laghu* and *snigdha* properties with *madhura*, *kashaya*, *tikta* and *katu Rasa* with *madhura vipaka* and *ushņa virya* which was intended to have a *tridoshashamaka* effect. The *laghu* and *snigdha* properties would act on the vitiation of the *kapha* and *vata dosha* whereas *sheeta virya* would act on *pitta dosha*. *Ushņa virya* and *snigdha* property would act on the vitiation of *kapha* and *madhura vipaka* would act on *vata dosha*. The *ushņa virya* and *snigdhatva* would aid in liquefying the dried *kapha* in the pores of the scalp. Most of the contents of *triphalaadi taila* are mentioned as *kusřthaghna*, *kandughna*, *krimighna*, *keshaya*, *tvachya* by the

various *Ayurvedic* classics. Pharmacology of *Ayurveda* is based on the theory of *rasa*, *guna*, *virya*, *vipaka* and *prabhava*, which were the simplest parameters in those days to ascertain the action of the drug. *samprapti vighatana* is said to be the treatment, therefore the action of a drug means to dismantle the *samprapti ghataka* of the disease.

#### PROBABLE MODE OF ACTION OF DRUGS-

- The mode of action of *taila* as *shiroabhyanga* increases the blood circulation in the scalp and hence impure blood is exchanged by fresh blood and thus due to the different properties of *taila* like *snigdha guna*, *katu*, *tikta rasa*, *ushna virya* removes vitiated *doṣha* from the *srotas* and helps in curing the disease.
- *Darunaka* occurs mainly due to vitiation of *vata* & *kapha doṣha*<sup>16</sup>. There may be assistance of vitiated *rakta* & *pitta*.
- *Kandu* is one of the symptoms in *Darunaka*. This is due to the factors like accumulation of *mala* on the scalp. This *taila* have *katu*, *tikta rasa*, *katu vipaka* & *ushna virya*<sup>17</sup>. *Tila Taila* also has *tikta rasa* and *ushna virya*<sup>18</sup>.
- *Katu*<sup>19</sup> *rasa* which ultimately removes *doṣha*, *abhishyanda*, *sweda*, *kleda* & *vridhha mala* from body. This removes *swedovaha*, *rasavaha strotasavrodha*. As *ama doṣa*, *kleda* is removed *Kanḍu* & *krimi* disappears too. Hence due to *kandughna*, *krimighna* properties; it gives relief in *Darunaka* by relieving *kanḍu* & killing *krimi*. Overall *katu rasa* helps in relief, by pacification of vitiated *kapha*.
- *Tikta Rasa*<sup>20</sup> acts in a similar way as it is a *krimighna*, *vishapaha*, pacifies vitiated *kapha* & *laghu* in property. Hence *Katu*, *tikta rasa*, *ushna virya* and *kaphahara* property of *taila* and *Tikta Rasa*, *ushna virya* of *Tila Taila* help in pacifying *Kapha* and reduces *kandu* symptom in *Darunaka*.
- *Rukshata* in *Darunaka* is due to *abhyangadvesha* and other *Vata* vitiating *nidana*

which causes roughness of scalp. *Rukshata* is pacifying by *Snigdha Guna* of the oil.

- *Tvak sphutana* in *Darunaka* is the result of the vitiated *vata doṣha*. *Ushna virya* of the drug plays a role in pacifying vitiated *vata doṣha*. *Tikta Rasa* provides stability to *tvak* & tissues, which might help in reducing *tvak sphutana* occurring in *Darunaka*. As *tikta* is *ruksha* in property it dries *pitta* & pacifies it. Hence associated *daha*, *raga* settles down. Hence *triphalaadi taila* reduce *tvak sphutana* by its *snigdha guna*, *tikta rasa*, *ushna virya* and *vatahara* property.
- *Keshachyuti* (Hair fall) is another symptom of *Darunaka*. The hair fall in *Darunaka* may be due to lack of *snigdha* caused by vitiated *vata*. The hair becomes dull and rough; owing to their abnormal dryness they become short, thin and fall out easily. *Triphaladi taila* reduces hair fall by their *snigdha guna*, *tikta rasa* and *vata kaphahara* property. *Tikta rasa* dries vitiated *pitta doṣa* with *ruksha* property & pacifies *pitta doṣha*. *Ushna virya* of the drug is responsible for pacification of vitiated *vata doṣha*, which reduces hairfall.
- *Daruna* (difficulty in tolerance) is another symptom of *Darunaka*. This is due to lack of *snigdha guna* caused by vitiated *vata*. Hence *Katu rasa*, *snigdha guna*, *ushna virya* of *taila* help in pacifying *vata* and *kapha doṣha*.
- *Svapa* is also due to vitiated *vata* and *kapha doṣha*. *Triphaladi taila* reduces *svapa* by their *snigdha guna*, *tikta rasa* and *vata kaphahara* property.

#### CONCLUSION

The study shows that *Triphaladi taila* is effective in the management of *Darunaka*. The trail drug i.e. *Triphalādi taila* showed statistically highly significant results in various sign and symptoms of *dārunaka* that include *Tvak sphuṭana* (Scaling or Flakes), *Kanḍu* (Itching), *Kesha bhumi rukshata* (Dryness of scalp), *Keshachyuti* (Hair fall), *Daruna*

(difficulty in tolerance) and *Svapa* (loss of touch sensation). This improvement in symptoms is brought about by *samprapti vighatana* of the disease. Therapy was well tolerated by all the patients and no toxic or unwanted effects were noticed in any patients. It can be concluded that the medicine i.e *Triphaladi taila* in current study show improvement in symptoms of *Darunaka*.

## REFERENCES

1. Vagbhat, Ashtanga Hridaya with the commentaries Sarvangasundara of Arundatta and Ayurveda Rasayana of Hemadri, edited by Pandit HariSadasiva Sastri Paradakara Bhisagacarya,Chaukhamba Sanskrit sansthan, Varanasi, Reprint-2014. Uttarasthana 23/20, Page no.859.
2. Vagbhat, Ashtanga Hridaya with the commentaries Sarvangasundara of Arundatta and Ayurveda Rasayana of Hemadri, edited by Pandit HariSadasiva Sastri Paradakara Bhisagacarya, Chaukhamba Sanskrit sansthan, Varanasi, Reprint-2014. Uttarasthana 23/19, Page no.859.
3. Vagbhat, Ashtanga Hridaya with the commentaries Sarvangasundara of Arundatta and Ayurveda Rasayana of Hemadri, edited by Pandit HariSadasiva Sastri Paradakara Bhisagacarya, Chaukhamba Sanskrit sansthan, Varanasi, Reprint-2014. Uttarasthana 23/20, Page no.859.
4. Sharangadharacharya, Sharangadhar Samhita-Commentaries of Adhamalla's Dipika and Kasirama's Gudhartha Dipika, Chaukhamba Orientalia, Varanasi, Edition, 2006. Purvakhanda 7/151-152 ,page no.116.
5. Sushruta, Sushruta Samhita, with Nibandhasangraha Commentary Of Sri Dalhanacarya Ed. Vd. Yadavaji Trikamji Acharya & Narayana ram Acharya "Kavyatirtha", Chaukhamba Surbharati Prakashan, Varanasi, Edi- (2003). Nidanasthana.13/34,page no.322.
6. Vagbhat,AshtangaHridaya with the commentaries Sarvangasundara of Arundatta and Ayurveda Rasayana of Hemadri, edited by Pandit HariSadasiva SastriParadakara Bhisagacarya,Chaukhamba Sanskrit sansthan, Varanasi, Reprint-2014. Uttarasthana. 23/23, Page no.859.
7. Sushruta, Sushruta Samhita, with Nibandhasangraha Commentary Of Sri Dalhanacarya Ed. Vd. Yadavaji Trikamji Acharya & Narayana ram Acharya "Kavyatirtha", Chaukhamba Surbharati Prakashan, Varanasi, Edi- (2003). Nidanasthana.13/35,page no.322.
8. Agnivesh, Charaka Samhita, Ed. Vd. Yadavaji Trikamji Acharya, Chaukhamba Sanskrit Sansthan, Varanasi, Reprint, 2005. Chikitsasthana.26/118,page no.888-889.
9. Madhava Nidanam "Madhukosha" Tika, Sanskrit commentary by vijayaraksita and srikanthadatta, Vidyotini hindi commentary by sri sudarsana sastri, Ed- Yadunandana Upadhyaya, Chaukhamba prakashan, Varanasi, Reprint, 2014. Kshudraroga chapter 55/30page no.241-242.
10. Bhavamisra, Bhavaprakasha of bhavamisra, translated by K.R. Srikantha Murthy Vol.2,madhaya khanda part-4, 3<sup>rd</sup> edition-2005,Chaukhamba Krishnadas Academy,Varanasi. ksudra roga adhikara 61/15,page no.654.
11. Borda,luis(2015).Seborrheic dermatitis and dandruff.A comprehensive review.Journal of clinical and investigative Dermatology.3(2).doi-10.13188/2373-1044.1000019.
12. Manual of Dermatologic therapeutics –Kenneth A.Arndt.Seborrheic dermatitis and dandruff,7<sup>th</sup> edition,2007 by Lippincott Williams & wilkins, chapter-29-page no.180.
13. Dandruff and Seborrheic dermatitis.A Head Scratcher by james R. Schwartz, Yvonne M.DeAngels and Thomas L.Dawson, Jr.chapter 12.page no.11. (www.Pg Science .com).
14. . Dandruff and Seborrheic dermatitis.A Head Scratcher by james R. Schwartz, Yvonne M. DeAngels and Thomas L.Dawson, Jr.chapter-12.page no.11.(www.Pg Science .com).
15. Govind Das, Bhaisajya Ratnavali of shri Govind Das, Vidyotini hindi commentary by shri kaviraja Ambikadatta Shastri, reprint-2013,Chaukhambha Prakashan, Varanasi. ksudra rogachapter-60/126,page no.957.
16. Ahmad et al., 2010
17. Ghafoorunissa, 1994; Hibasami et al., 2000; Miyahara et al., 2001.
18. <http://www.stuartxchange.com/Linga.html>

19. Sushruta, Sushruta Samhita, with Nibandhasangraha Commentary Of Sri Dalhanacarya Ed. Vd. Yadavaji Trikamji Acharya & Narayana ram Acharya “Kavyatirtha”, Chaukhamba Surbharati Prakashan, Varanasi, Edi- (2003). Nidanasthana.13/34,page no.322.
  20. Raj Nighantu Shatahvadi varga 62-65
- 

**Source of Support: Nil**

**Conflict Of Interest: None Declared**

How to cite this URL: Chetan Singh et al: A Clinical Study To Evaluate The Efficacy Of Triphaladi Taila In The Management Of Darunaka W.S.R. To Dandruff And Seborrheic Dermatitis. International Ayurvedic Medical Journal {online} 2018 {cited September, 2018} Available from:

[http://www.iamj.in/posts/images/upload/1942\\_1948.pdf](http://www.iamj.in/posts/images/upload/1942_1948.pdf)