



CRITICLE REVIEW ON DARUNAKA WSR TO TWAK SHAREERA

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ABSTRACT

Darunaka is caused by vitiation of either Kapha and vata dosha and it is characterized by Kandu, Kesha bhumi rukshata (roughness), keshachyuti (hair fall) and twaksphutana (scaly flakes) in head region. Based on signs and symptoms it can be correlated to dandruff characterized by scaly flakes, roughness, itching, hair fall. Treatment includes External shampoo applications, Creams, oils etc., it is a persistent and relapsing scalp disorder that affects approximately 50% of the general adult population worldwide. Ayurveda explains various treatment modalities of darunaka which includes Various lepas, Taila application etc., though it seems to be simple but the in dept knowledge is required regarding nidhana panchaka, chikitsa, here is an attempt made to achieve that.

KEY WORDS- Darunaka, Nidhana panchaka, chikitsa, Dandruff

INTRODUCTION

Shalakya tantra is one among Ashtanga's of Ayurveda and which deals with the diseases of head and neck (Shravana, Nayana, Vadana, Ghrana). Head is considered as uttamanga(AH.SU.1/5). In ayurveda head is said to be root of prana(AH.SU.12/4) and the sadya pranahara marmas are also present in the head region(SU.SHA.6/9), hence it should be protected(AH.U.24/59) and treated as early as possible. Increasing urbanization and industrialization have greater danger due to air pollution, contamination of water, liberation of toxic, allergic and poisonous things that causes disorders of shiras.

Darunaka is defined as mastakajata kshudra roga visheshaha¹, categorized under kshudra rogas by sushrutacharya(SU.NI.13/3) and Kapala gata rogas by vagbhatacharya(AH.U.23/23). Darunaka, caused due to vitiation of Vata and Kapha dosha along with pitta and rakta dosha which is characterized by kandu (itching), Kesha bhumi rukshata (roughness), keshachyuti (hair fall) and twak sphutana (scaly flakes) in head region (SU.NI.13/35). The chikitsa includes snehana, swedana, abhyanga, siravyadha, avapeedana nasya, shirobasti, prakshalana(SU.CHI.20/30) and lepa(AH.U.24/26,27).

Darunaka can be correlated to Seborrhea Dermatitis, it consists of a dry form (simple dandruff), with small dry to thick powdery scales and little to no erythema, and an oily form, with greasy or oily scales and crusts on an erythematous base associated with itching, dryness mainly on scalp which is commonly called as Dandruff², it is a persistent and relapsing scalp disorder that affects approximately 50% of the general adult population worldwide³.

Its having more of cosmetic significance and it affects almost everyone at least once in their life time, most probably from the puberty stage to adulthood. Shampooing and Coal tar preparations are the main line of treatment. Widely there is use of 2% Ketoconazole and 2.5% Selenium Sulfide, Zinc pyrithion in shampoo base. Long term usage of shampoos can cause skin irritation, dry skin, allergic reaction, rashes etc. and the cost is also high.

REVIEW OF LITERATURE

The review of the literature is as follows

1. Shira Kapala twak shareera
2. Darunaka vyadhi

1. SHIRA KAPALA TWAK

Nirukti - The word 'Twak'⁴ or skin is derived from the root Twacha.

त्वचति संवृणोति मेदशोणित्वादिकमिति।⁵

Meaning that Twak is the covering of the body which covers the fat, blood tissue; muscle tissue etc.



Historical review

Charma and Asrgdhara are the synonyms of Twak. The word 'Twak' is mentioned for the first time in the Vedas. The Rigveda talks about certain diseases manifesting on skin giving them the name of Twak rogas such as Kushta, Shwitra etc.

Some references are found in the Ayurvedic treatises regarding the formation and development of Twak from the stage of fetus itself. According to Sushruta twak is formed at the time of garbha similar to the cream when the milk is boiled and allowed to cool by itself. The development of skin actually begins simultaneously with the formation of the zygote. Vagbhata states that the Twak is completely formed by the sixth month(AH.SHA.1/57) of embryonic life.

Sushruta has mentioned twacha is a seat of vaata(SU.SHA.1/57) and also Sparshanendriya (sense of touch) and its quality Sparsha (touch) in relation to twacha(SU.SH.1/19).

As per Vagbhata twak is formed during the time of Raktadhatu parinama. The seven layers of Twak are formed, after the Dhatu parinama, when Rakta converts into Mamsadhatu(AH.SHA.3/8).

In Ayurveda, Rakta (blood tissue) Mamsa (muscle tissue), Majja (bone- marrow), guda (anus), etc., originate from the mother and hence they are known as matruja bhavas (maternal elements) Twak also considered as Matruja bhava(CHA.SHA.3/6).

Almost all the ancient scholars consider Twak as an upadhatu of Mamsa. An upadhatu is identical with a dhatu which is not subject to any transformation and it supports the body. Updhatus are the by - products of dhatu parinama. Twak is an upadhatu or associate tissue of Mamsa dhatu (Muscle tissue)(CHA.CHI.15/18,19).

Twak shareera

According to our ancient scholars, there are two opinions regarding the number of layers of the skin. Charaka and ashtanga sangraha kara told that it has six layers(CHA.SHA.7/4),(AS.SHA5/24).

1.Udakadhara: This is the external layer bearing lymph.

2.Asrgdhara: It is the second layer and bearing blood capillaries.

3.Thritiya: Sidma and Kilasa are the diseases occurring in this layer.

4.Chaturti: The fourth layer is the seat for the manifestation of dadru and Kushta.

5.Panchami: The fifth layer is the seat for the manifestation of alaji and vidradhi.

6.Shashti: The sixth layer is that by the excision of which the vision becomes blurred and the individual feels darkness.

According to Vagbhata and Sushruta, seven layers are explained in the skin. These layers are described from the exterior to the interior, i.e., 7th layer, which is the innermost (SU.SHA.4/4) explained in table1.

In Pratyakshashareera of Gananatha Sena detailed description about Twak ,he said that it protects and covers the entire body and the seat of Sparshanendriya. Sweat glands with their ducts, hairs, and hair follicles are embedded in the Twak. It is divided in to external and internal layers. The external layer is very thin and responsible for color and luster. Blisters are formed in this layer when it contacts with fire. The internal layer is thick which protects the body. Ducts of sweat glands, sebaceous glands and sensory nerve endings are situated in this layer.

Functions of Twak

1.Protective: Twak protects the body from loss of body fluids. Being an upadhatu it supports the body.

2.Sensory: Twak is the seat of Sparshanendriya.

3.Absorption: Twak is the seat of Bhrajakapitta.

According to Sushruta, pitta which is located in the skin, is called as Bhrajakagni and it enables the digestion of substances used for Abhyanga, Pariseka, Lepana etc.

According to Dalhana this Bhrajakapitta is situated in the Bahyatwak and is responsible for the digestion of dravyas applied to the skin(SU.SU.21/10)

**Table No. 1 - Showing Layers of skin as mentioned in ayurveda.**

Sl. No	Layers	Thickness	Common Diseases Occurring
1.	Avabhasini	1/8 th of vrihi	Sidma, Padma, Kantaka
2.	Lohita	1/6 th of vrihi	Tilakalaka, Nycha, Vyanga
3.	Shweta	1/12 th vrihi	Charmadala, Ajagallika, Masaka
4.	Tamra	1/8 th of vrihi	Kilasa, Kushta
5.	Vedini	1/5 th of vrihi	Kushta, Visarpa
6.	Rohini	1 vrihi	Granthi, Apachi, Arbuda
7.	Mamsadhara	2 vrihi	Bhagandara, Vidradhi, Arshas

2. DARUNAKA VYADHI**Darunaka nirukti:**

The word Darunaka is derived from the verb, Darayati⁶ = 'Splitting' or tearing or difficult to tolerate. Dhalana says Daruna means Kathina (SU.NI.13/35), difficult to bear or tolerate. Darunaka is a Kapala roga (Disease of the scalp). Kapala is the region which covers the skull. It is not counted in shiroroga but explained as Kapalaroga by Vagbhata and Sharangadhara⁷ and as Kshudraroga by Sushruta, Bhavaprakasha⁸, Madhavanidana⁹, Yogaratnakara¹⁰, Bhaishajya Ratnavali¹¹, Chakradatta¹². All the Acharyas have the same opinion about the seat of this disease, which is Kapala.

1. NIDHANA

Sl.no	Table No. 2 - Showing Nidanas of Darunaka	Ch ¹³	Vag ¹⁴	
Aharajanidana				
01	Amlaaharaatisevana (Excessive intake of sour food)	+	-	
02	Atisheetambusevana (Excessive intake or use of cold water)	+	+	
03	Dushtama (Indigestion)	+	+	
04	Guru ahara (Intake of heavy food)	+	-	
05	Haritha aharaatisevana (Excess intake of green leafy vegetable)	+	-	
06	Himaahara (Intake of cold food)	+	-	
Viharajanidana				
07	Atapaathisevana (Exposure to hot weather)	+	-	
08	Atiswapna (Excessive sleeping)	-	+	
09	Diva Swapna (sleeping during day time)	+	-	
10	Jagarana (Night vigil)	+	-	
11	Praagvata- (Exposure to east wind)	+	+	
12	Rajahasavana (Exposure to dust)	+	-	
Related to Vegas				
13	Athi maithuna (Excessive sexual indulgence)	+	-	
14	Bhaspanigraha (Suppression of tears)	+	+	
15	Rodana (Excessive weeping)	+	+	
16	Vegadharana (Suppression of urges)	+	+	
Defective hygiene				
17	Abhyangadvesa (Absence of Oiling)	-	+	+
18	Mrjadvesa (Improper cleaning)	-	+	+
Psychological factor				
19	Manastapa (Mental agony)	+	+	+



2.SAMPRAPTI

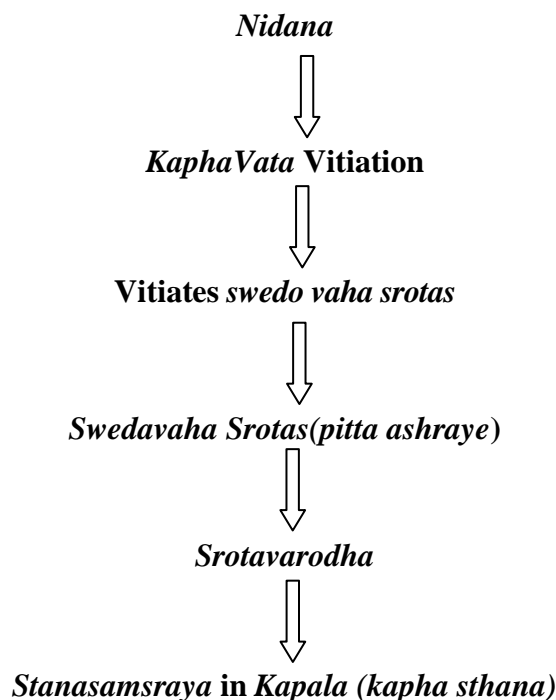
The formation of any disease takes place only when there is a combination of vitiated Dosha with Dushya in srotas. This Dosha Dushya Sammurchana is explained under Samprapti.

As per etiology, mainly Kapha and Vata get vitiated. The association of Pitta and Rakta is mentioned by Videhacharya(SU.NI.13/35 TEEKA). Twak is formed from Raktadhatu during the time of Dhatu parinama. According to Ashrya Ashrayi bhava of Dosha and Dushya, the Pitta dosha is related with Dushya Rakta(AH.SU.11/26). The Bhrajakapitta is located in the skin. So, when the pitta is vitiated in Darunaka, Rakta is also vitiated. Here the Sannikrishta nidana is the vitiation of Kapha and Vaata.

The vitiated Doshas circulate through the blood vessels and reach the scalp. The vitiation and circulation of Doshas contribute in the progression of disease through Chaya, Prakopa and Prasara stages of the diseases, later in Sthana samshraya or stage of manifestation, Dosha interacts with Dushya(SU.SU.21/37). The Doshas Kapha, Vata and Pitta interact with the Dushyas rasa, Rakta at Kapala in the disease Darunaka.As a result, the vitiated Kapha and Vata produce Kandu, Keshachyuti, Swapa, Rookshata and Twak sphutana, and manifest the disease Darunaka

The swedo vaha moola is loma kupa (root of hairs)(CHA.VI.5/8). The main srotas vitiated here is Swedovahi srotas. The Swedavahi srothodushti karana will be ati vyayama,santapa,sheeta ushna krama sevana,krodha ,shoka, bhaya and this will be almost related to shiroroga nidhana.(CHA.VI.5/22) lakshanas like itching, dryness of the skin, abnormalities of touch sensation etc. will be developed. These symptoms are seen in Vyakta stage and the disease Darunaka is manifested. The main Doshas vitiated in Darunaka is Kapha and Vata. These vitiated Doshas vitiate Rakta dhatu. In all types of diseases related to head, vitiation of Rakta is an invariable cause. These in turn vitiate Rasa and Swedovaha srotas.The vitiated Kapha gets accumulates in Srotas by Vataprakopa and Srotavarodha occurs. Sthanasamsraya of this disease takes place in the Kapala and thus Darunaka get manifested.

Flow chart– 1: Showing the Samprapti of Darunak



Causes Darunaka

SAMPRAPTI GHATAKA

Dosha	: Kapha vata, pitta rakta
Dushya	: Twak,Rakta,
Srotas	: Swedavaha, Rasavaha,Raktavaha
Adhistana	: Kapala
Vyakthastana	: Kapala

**3.PURVA RUPA**

Purva rupa denotes the symptoms that manifest incompletely before the Vyaktaavastha. No reference is available regarding purva rupa of Darunaka in the classics

4.RUPA

1.दारुणा कण्डुरा रूक्षा केशभूमिः प्रपाट्यते |

कफवातप्रकोपेण विद्याददारुणकं तु तम् ||३५|| (SU.NI.13/35)

2.कण्डूकेशच्युतिस्वापरौक्ष्यकृत् स्फुटनं त्वचः||२३||

सुसूक्ष्मं कफवाताभ्यां विद्याददारुणकं तु तत् (AH.U.23/23)

Kandu (Itching), *Keshachyuti* (falling of hair), *Swapa* (abnormalities of touch sensation), *Rookshata* (roughness or dryness of the skin) and *Twak Sphutana* (breaking or cracking of the skin) are the cardinal symptoms of the disease *Darunaka*. Different Acharyas opinion is shown in table.

Table No. 3 - Showing Lakshanas of Darunaka in different Ayurvedic classics

Lakshanas	AH.U.23	AS.U.27	SU.NI.13	Y. R ¹⁰	M.N ⁹	B. P ⁸
<i>Kandu</i>	+	+	+	+	+	+
<i>Kesha chyuti</i>	+	+	+	+	+	+
<i>Swapa</i>	+	+	-	-	-	-
<i>Rukshata</i>	+	+	+	+	+	+
<i>Tvaksphutana</i>	+	+	-	-	-	-
<i>Daruna</i>	-	-	+	+	+	+
<i>Daha</i>	-	-	-	-	-	-
<i>Raga</i>	-	-	-	-	-	-
<i>Gaurava</i>	-	-	-	-	-	-
<i>Toda</i>	-	-	-	-	-	-

Kandu is a symptom which is closely related to *Kaphadosha* and it has an important role in the pathogenesis of *Darunaka*. *Kandu* is one of the *karmas* of diseased *Kapha dosha*. This is due to the factors like accumulation of malas on the scalp and the excessive secretion of sweat etc.

Kesha chyuti is caused by vitiated *Pitta* in association with *Vata*. The hair falling in *Darunaka* may occur in Lack of *Snigdghata* due to vitiated *Vata*, the hair becomes dull and rough. Owing to their abnormal dryness they become friable, short and thin and easily fallout.

Swapa or abnormality of touch sensation means temporary or partial loss of sensation which is resulted due to vitiation of abnormal *Vata*.

Rookshata is a *Vata* predominant disorder. *Abhyanga dvesa* and other *Vatavitiating nidanas* can lead to roughness of scalp. *Sushruta* had quoted *Darunaka* as *Kathina*, *Karkasha*. This may be due to the symptom roughness produced by this disease.

Twak sphutana is breaking or splitting of scalp is one of the symptoms of *Darunaka*. It occurs owing to scratching and abnormal keratinization of epidermis. It is the result of the vitiated *Vatadosha*.

5.UPASHAYA AND ANUPASHAYA

No particular description is available in the classics about the *Upashaya* and *Anupashaya*. As per the *Samprapti Vata-kapha harachikitsa* is *Upashaya*.



SADHYASADHYATA

In Vagbhata nine kapalagata rogas are mentioned. Darunaka is one of theKapalagata rogas. It is sadhya

VYAVACHHEDAKA NIDANA

Darunaka can be differentiated among Kapala vyadhis especially from Indralupta.

Table No. 4 - Showing the Vyavachhedaka Nidana of Darunaka and Indraluptha

Sl.no	Darunaka	Indralupta ¹⁵
1.	The region of the hair loss has no specific shape; it spreads all over head.	The region of the hair loss has specific shape.
2..	Kesha patana is less and gradual.	Kesha patana is more and rapid.
3.	Kesha patana occurs only on scalp.	Kesha patana from head bearded area.
4.	Kandu is more.	Kandu is less.
5.	Twak sputana is main.	Twak sputana is absent

PREVENTION

Maintenance of personal hygiene is the most important of this disease.

Recurrence rate increases if proper hygiene is neglected.

Acharya Sushruta had given importance for maintaining personal hygiene in hisnidanastana.

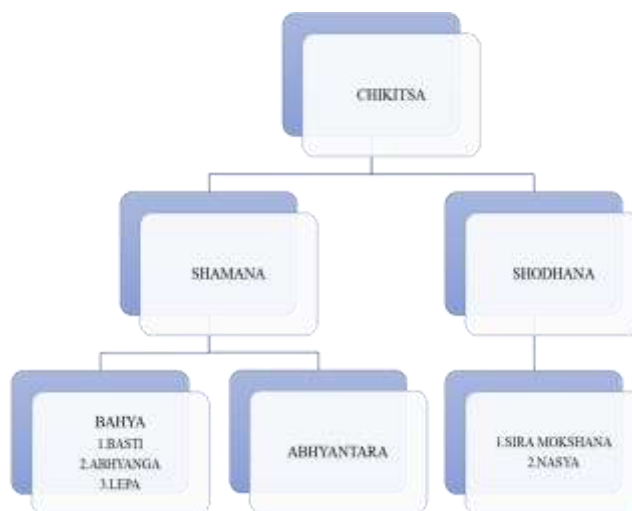
Acharya Charaka(CHA.SU.5/85-88) had stated the importance of regular usage of oil and washing the scalp can prevent Darunaka to a great extent.

CHIKITSA VIVECHANA

In the Ayurvedic literature references regarding the dietary measures, medicaments and various treatment modalities for Darunaka are explained by different Acharyas.

The treatment principles mentioned are Siravyadha (Raktamokshana), Shiro abhyanga, Nasya, Shirolepana, Shiropakshalana and Shirobasti. In this study Shiro abhyanga was taken for evaluation.

Flow chart. 2 – Showing treatment principles



1.Shamanoushadhi

a.Shiro abhyanga

1.Malatyadi taila:¹⁶ Taila is to be prepared with malati, Mandura, Bringaraja,Utphala, Sariva, Triphala and applied on scalp.

2.Bhringaraja taila:¹⁷ Taila is to be prepared with Bhringaraja, Lohakitta,Triphala, and Sariva and applied on the scalp.

3.Prapoundareeka taila:¹⁸taila is to be prepared with triphala, pundareeka

4.Gunja taila ¹⁹-Taila prepared using gunja

**b. Shiro lepana²⁰.**

1. Past of Priyal seeds, Yasti, Kushta, Masha, Sarshapa and honey and applied on the scalp.

2. Past of Mango seeds, unripen Haritaki and milk, and applied on the scalp.

3. Khakhasabeejadilepa.²¹

4. Kodrava palaala siddha mashi lepa²²

c. Shiropakshalana: (SU.CHI.20/30) Ksharambuprakshalana

2. SHODHANA

Siramokshana (SU.CHI.20/29) After sneha and sweda karmas of moordha, Raktamokshana by Siravyadha in lalata²³ region.

Nasya: Nasya with Prapoundarika taila.

PATHYA AND APATHYA

Pathya apathyas explained for shiroroga can be applied even for darunaka which are listed below

Table No. 5 - Showing Pathyapathya for Shiroroga / Darunaka

PATHYA ²⁴					
Aharaja		Upacharaja		AushadhiVarga	
01.	Shastikashali	01.	Swedana	01.	Purana gritha
02.	Ksheera	02.	Nasya	02.	Patola
03.	DhanvaMamsa	03.	Dhumapana	03.	Shigru
04.	Amra	04.	Virechana	04.	Draksha
05.	Amalaki	05.	Lepa	05.	Vastuka
06.	Dadhima	06.	Seka	06.	Karavellaka
07.	Matulunga	07.	Langana	07.	Haritaki
08.	Taila	08.	Shirobasti	08.	Kushta
09.	Takra	09.	Raktamokshana	09.	Bhrungaraja
10.	Kanjika	10.	Agnikarma	10.	Kumari
11.	Narikelam	11.	Upanaha	11.	Musta
12.	Yusha			12.	Ushira
	Viharaja			13.	Gandasara (chandana)
01.	Chandrika (moonlight)			14.	Karpura
APATHYA ²⁵					
Aharaja		Viharaja		Viharaja	
01.	Ksheera	01.	Kshavatu	04.	Vibudhajalamajjana
02.	Jala	02.	Jrumba	05.	Danthakasta
03.	Virudha anna	03.	Bhaspa nigraha, nidra,	06.	Divaswapana

CONCLUSION

Darunaka is a kapalagata and kshudra roga caused by vaata and kapha along with pitta and rakta. It is characterized by kandu, keshachyuti, twak sphutana, keshha Bhoomi rookshata in scalp region. The features of darunaka can be correlated with seborrheic dermatitis (dandruff) it is a form of fungal infection because itching, scaly flakes, and hair fall are the main symptoms in both.

Hence understanding of darunaka by basic principles of ayurveda is most important in treating it effectively. This article will be helpful in knowing basic principles of darunaka like nidhana panchaka in deeper aspects with valid references.

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