

Effectiveness of local application of Karanja beeja tail on Darunaka with special reference to *pityriasis capitis*: A case study

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Abstract

Background: Darunaka is a very common disease with great prevalence rate. In today's era it is very difficult to take proper care of hair, lack of hygiene, cleanliness causes various hair disorders and Darunaka is one of them. Darunak is described under Kshudra rogas as per Acharya Sushruta, Madhavnidan. Acharya Sharangdhar described it under Kapalroga. The cardinal symptoms of Darunak are Twaksphutan (scaling of scalp) and Kandu (itching on scalp). Darunak can be correlated with Seborrhoea confined to the scalp and dry variety of pityriasis capitis of modern medicine due to similarity of symptoms. In this case study patient came to our institute suffering from Darunaka, with symptoms of kandu & twaksputan. Patient was treated with local application of karanja beeja tail (*Pongamia pinnata* Linn.) over the period of 21 days. Patient's condition was assessed for signs and symptoms of darunaka which were cured after the treatment.

Aim: Aim of this study to evaluate role of local application of karanja beeja tail on Darunaka (Ekal Dravya).

Material & methods: In this case study patient treated with local application of karanj beeja tail on scalp region over the period of 21 days and results were observed.

Results: Remarkable changes were found in cardinal sign and symptoms in this patient of Darunaka by Ayurvedic ekal dravya management of local application of karanj beeja oil.

Keywords: Darunaka, kshudra rogas, pityriasis capitis, karanj beeja tail, Sthanik Chikitsa.

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1. Introduction

Darunaka is a very common disease with great prevalence rate. Throughout history, hair has played a significant role in our society – it is associated with youthfulness and beauty in women and virility and masculinity in men; Hair is the mirror of beauty. In today's era it is very difficult to take proper care of hair. Indiscriminate use of beauty products, hair dyes, colour, shampoo, lack of hygiene, cleanliness causes various hair disorders. [1]

Darunak is described under Kshudra rogas as per

Acharya Sushruta, Madhavnidan.[2] Acharya Sharangdhar described it under Kapalroga.[3] Darunak is Kapha Vata pradhan vyadhi. The cardinal symptoms of Darunak are Twaksphutan (scaling of scalp) and Kandu (itching on scalp).[4,5]

Darunak can be correlated with Seborrhoea confined to the scalp and dry variety of pityriasis capitis of modern medicine due to similarity of symptoms. It affects approximately 50% of the general adult population worldwide. It is also more prevalent in males than

females. [6,7] Though it is not a life threatening disease, it may become a cosmetic problem during second and third decades of life. The scalp forms skin cells on a continuous basis, therefore the shedding of dead skin cells is also a natural process. In case of dandruff, the skin cells shed at a faster rate than usual. When the hair is combed or brushed, or if the scalp is scratched, the scales from the scalp fall like snowflakes and settle on the eyebrows, shoulders and clothes. These scales sometimes appear as crusts on the scalp. Often there is itching as well and the scalp may become red from scratching. [8,9]

In Ayurveda literature there is no any clear-cut reference regarding the causative factors of Darunaka. All the Nidanas described by various Acharyas for Shiroroga are considered as hetu in Darunak. Samprapti of Darunak involves vitiation of Kapha and Vata Dosha, Rasa, Rakta dhatus and Swedavahastrotas dushti which is managed by Shodhan, Shaman and Bahirparimarjan (topical) Chikitsa. In Ayurveda, various herbal formulations are described as effective remedy for it, karanja beej tail is one among them use for local application. Local application works faster due to physiological effect of heat on the skin. As per the need of fast life of today's society, as Bahirparimarjanan form this tail was selected which is easily done and act as Sthanik Chikitsa for fast relief.

2. Case Report

A 25 yr old girl was consulted to outpatient department (OPD) of Bhausaheb Mulak Ayurved Mahavidyalaya Nandanwan, Nagpur with the complaint of Itching (Kandu) & scaling (twaka sputan) of scalp region

since 1 month. Having Personal History like mixed type of ahar, using bore water for hair wash, frequently changing shampoo, time duration of hair wash is once a week with faulty food habits. On examination, patient presented with scaling over the scalp region with Itching.

2.1 Clinical Findings

This case was consulted on 30 / 03/ 2021 in OPD of Bhausaheb mulak ayurved mahavidyalaya nandanwan, Nagpur for the Ayurvedic treatment. On physical examination patient was found anxious, with loss of appetite and mild constipated with normal colored tongue. When asked about bladder and bowel, Micturition and bowel movement were normal. Patient having height- 163 cm & weight- 48 kg. Patient was Vata and Pitta Prakriti with Madhyam Samhanana, Sara was madhyam, Sama Pramana, Satmya was madhyam, Madhayam Satva (in relation to mental strength), Vyayamshakti was madhyam, Aharshakti and Jaranshakti were also heen. All laboratory and biochemical investigations were normal. Patient complaints of Itching and scaling at the site since 1 month. Itching was so prominent that patient was unable to sleep.

2.2 Selection of material

The raw materials required for drug were procured from authentic source and were verified by experts of department of *Dravyaguna-vigyan*.

2.3 Preparation of Tail

Authenticated and verified karanja beej were collected from legumes of karanj plant of our herbal garden and periphery and then oil was prepared from authenticated source.

2.4 Method of preparations of drug:



Figure 1: Method of preparations of drug

Assessment Criteria: Subjective Parameters

Operational definition:

Darunak is described under *Kshudrarogas* as per *Acharya Sushruta, Madhavidan. Acharya Sharangdhar* described it under *Kapalroga*. *Darunakis Kapha Vatapradhanavyadhi*. The cardinal symptoms of *Darunakare Twakspshutan* (scaling of scalp) and *Kandu* (itching on scalp). *Darunak* can be correlated with Seborrhoea confined to the scalp and dry variety of pityriasis capitis of modern medicine due to similarity of symptoms.

Methods of Measurements: Subjective Parameters

a) Subjective criteria:

1. *Twakasphutan* (Scaling of Scalp)
2. *Kandu* (Itching on scalp)

b) Objective criteria: NA

c) Assessment criteria:

1. *Twakasphutan* (Scaling of Scalp):

Table 1: Scaling of Scalp

Grade	Features
0	No Scaling
1	Scaling seen only at the time of combing.
2	Scaling absent during combing of hair, but seen over the scalp only after thorough examination of hair.
3	Scaling seen at the time of combing and also at other time.

2. *Kandu* (Itching on scalp):

Table 2: Itching on scalp

Grade	Features
0	No Itching
1	Occasional Itching (1 to 2 times a day)
2	Frequent Itching
3	Continuous Itching

3. Observations & results

In this study, this 25 year female patient of 'Darunak' was taken for the study of local application of karanj beej tail with follow up of 21 days. Patient was diagnosed with the help of criteria of diagnosis. Specially designed Case Report Form was used to record all information and medical history of Patient. Patient was selected based on inclusion and exclusion criteria. Patients was examined prior to the start of treatment with respect to the Proforma. All these values were termed as Before Treatment values (B.T.) After complete examination treatment was started while patient was assigned intervention. Patient of Study was administered Karanj-beej Tail local application for two times daily in the morning and evening for the period of 21 days. Follow up taken on every 7th, 14th and 21st days, after completion of therapy all

values of these investigations and examinations were recorded, it was termed as after treatment (AT).

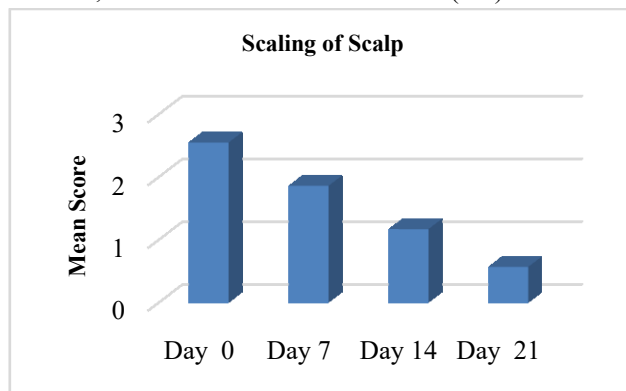


Figure 2: Score of Scaling of Scalp

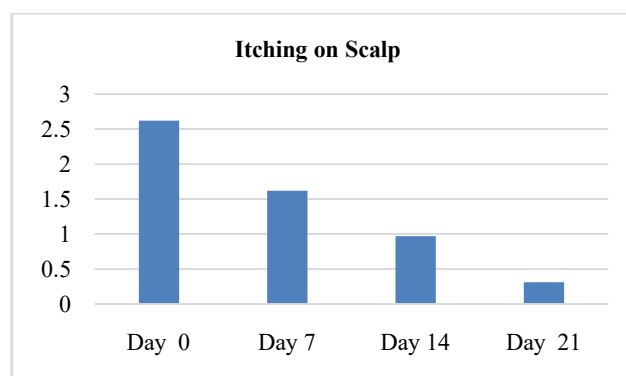


Figure 3: Score of Itching of Scalp



Figure 4: Treatment Effect

4. Limitations of study

The study has been undertaken in single case of Darunak which can be further evaluated in a greater number of subjects. Patient counseling need to be done for diet and care of hair.

5. Probable mode of action

Dalhana has explained in details about the absorption of *Sneha* accordingly the oil used in this treatment can reaches up to the different *Dhatus* if it is applied for the sufficient time. Hence, the drug used locally gets absorbed by the skin. *Dalhana* also mentioned that when *Snehana* (oleation) drug reaches to the Dhatuit

subsidies or cures the diseases of that Dhatu. *Charaka* has also described that *Vayu* dominates in the *sparshanendriya* i.e. tactile sensory organ is lodged in the skin. The drugs used in *Karanja Tail* have the *sneha* property. They act as their properties and are opposite to the properties of *vata*. Due to *snigdha*guna, it acts through its *Vatahara*, *kaphakar* and *vrushya* properties. It performs action like *Snehan*, *Kledan* and *vishyandan* at cellular level of the body. Due to *Guru Guna*, it increases the strength of body and *Kapha*. Due to *Guru Guna*, it alleviates the morbid *Vata*, increases the decreased *kapha* and nourishes the body. *Mrudu Guna*, *Mrudu* means soft. This is the opposite attribute of *Daruna* i.e. By this property of *Abhyanga* reduces the Dryness. *Drava guna* means liquid, which causes humidity. By this *Snehana* drug propagates swiftly all over the body. It liquefies the *Doshas* and mobilizes them by increasing their flowing capacity. *Sara Guna* – The meaning of *Sara* is to slip or mobility. It mobilizes the *Doshas* and *Malas* i.e. waste products by this property. In this way *local application with the karanja Tail* acts through the above properties of *Sneha*.

6. Conclusion

Darunak is a *Kapha vata* predominant *vyadhi* in which *rasa*, *rakta* and *swedvaha strotas* get vitiated. According to Modern science, due to its similarity in clinical features it can be correlated with Dandruff / Pityriasis capitis. In this case study we observed that *karanj* beej tail showed significant improvement in *Twak sphutan* and *kandu* due to its *kandughna* and *krimighna* properties. It was observed that there is highly significant result was seen on Day 14 of follow up for scaling of scalp and itching on scalp in the patients of *Darunak* with local application of *karanj* beej tail.

Conflict of interest: None

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