



## MANAGEMENT OF KHALITYA THROUGH KURCHA CHIKISTA USING DERMAPEN: A CASE STUDY

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## ABSTRACT

The *Ayurvedic* period constitutes the most flourishing and fruitful age of ancient India relating to the accumulation and development of knowledge in science. *Ayurveda* has been a boon to mankind from the Vedic culture to the present day. *Kurcha chikista* has gained more popularity these days for the treatment of many skin and hair ailments in the form of microneedling, where it produces *Sukshma raktasrava* and stimulates collagen. *Trikurchaka shastra* is indicated for *Rakta visravan*<sup>1</sup>. *Acharya Vagbhatta* has also mentioned *Pracchana karma* with the help of *Suchi* and *kurch shastra* in the treatment of *khalitya*<sup>2</sup>. In *ayurveda*, the *Raktamokshana* treatment is explained in the form of *Pracchana* and *Visravana karma*, in *khalitya* which is performed with the help of *trikurcha shastra* which can be closely associated with microneedling of modern science. In the present case study, we have reported a 42-year female lady having hairloss from 4year with female pattern baldness. There is no significant past history of any chronic disorder in the patient. The patient is treated with *Pracchana karma* with a modernised machine *Dermapen* which has a similar mode of action as that of *Trikurcha shastra* along with internal medications *Saptamrutaloha*, *Asthiposhakavati* and *Narasimha rasayana* for 3 months. The patient has reported significant improvement after 12 sittings of *Dermapen* with 1 week interval period.

**Keywords:** *Trikurchaka shastra chikista*, *Khalitya*, *Pracchana visravan karma*, *Dermapen*, *Microneedling*.

## INTRODUCTION

*Ayurveda* is a healing and ultimate science towards a healthy lifestyle and achieving longevity, improper *Aahara* (diet) and *Vihara* (Activities) & not following the principles of *Dincharya* (Daily regimen) and *Ritucharya* (Seasonal rituals) living in stressful life will fasten the process of ageing. As Personality has supreme value in this modern era, hairs play a vital role in the human body and noticeable part of humans in both men and women. Especially the minor changes in scalp hairs will have an impact on the psychology of a person & affects self-confidence and self-esteem. Faulty dietary habits along with improper nourishment and a stressful lifestyle lead to excessive hair fall, hence falling of hair is progressively increasing in society which is also affecting the quality of life. In regard to *khalitya*, the treatment principle *Pracchana karma* plays an important role in regenerating the follicles with collagen induction and generating new hair growths. In *Ayurveda* mainly *Sashastra raktamokshana* is told in two ways one is *Pracchana* and the second is *Siravedha*. *Acharya vagbhata* has mentioned *Trikurchaka shastra* while explaining twenty-six sharp instruments<sup>3</sup>. *Trikurchaka* is indicated for *Rakta visravana*<sup>4</sup>. *Vishravana karma* leads to *Sukshma Raktashrava* i.e Microbleedling. In new technologies, instruments which are used for Micropuncturing & microneedling are Derma roller, *Dermapen*, and *Dermastamp*. *Trikurcha shastra* has the same structure and function as that of *Dermapen* only difference is with a different number of cartridge needles. *Dermapen* is an automated electrically powered pen instrument with a handle, disposable cartridge and guides to adjust needle length. (Fig 1) The needle tip has a different number of needles arranged in rows. (Fig 2) *Dermapen* is being used as a microneedling device as it comes with an adjustment ring allowing for alteration of heights of needles. The micro-needling is repetitive puncturing of the skin with sterilized microneedles inducing collagen production by enriching the scalp hair follicles & growth of old hairs and formation of new hairs. In 2005, Dr. Desmond Fernandes developed the first MN product which became the modern-day dermaroller<sup>5</sup>. So here

in the case of *Khalitya*, an attempt is made to induce *Prachanna karma* using *Dermapen* with 12 needle cartridges along with internal medication given for *kasha uttapati*, *Asthi dhatu poshana* & for *Rasayana karma*.

### Uttapati of kasha

In *Ayurveda* hair is known as *Kesha*. The word *kesha* originated from “*shee*” with “*ach+aluksamasah*” which has been explained as “*kemastakeshete iti*”<sup>6</sup> “*shee*” with “*ach+ aluksamasah*” which has been explained as “*kemastakesheteiti*” by *Halayudha Ko* as per *Ayurveda* human body is made up of seven dhatus ( Body elements ) i.e *Rasa, Rakta, Mamsa, Meda, Asthi, Majja* and *Shukra* and along with the formation of former *Upadhatu* & *mala* from former *Dhatu*.

As per our *Ayurvedic* classics, *Charakacharya* considered *kesha* as *Mala* of *Asthi dhatu*<sup>7</sup>, whereas *sharangadhara* told *kesha* as *upadhatu* of *Asthi*<sup>8</sup>.

Hair is a modified epithelial structure formed as a result of the keratinisation of germ cells. Hair has a root, shaft, and tip. The root lies in the dermis, shaft grows from the root and projects outside the skin. Hair consists of three zones that are cuticle, cortex, and medulla. Hairs grow out of a hair follicle & resist chemical decomposition because it is composed of 80 – 90% keratin and melanin. It retains structural features over long periods of time. The hair growth cycle has three essential stages i.e Anagen, catagen, and Telogen. In Anagen root is flame shaped and actively growing. In catagen root elongated and shrunken and slowed growth. In Telogen root club-shaped, hair falls out of the follicle, and hair growth ends. Then the hair follicle returns to the anagen stage & new hair begins to develop. In this way, the hair growth cycle continues. 50-60 hairs are lost per day in normal hair growth cycle<sup>9</sup>

*Vagabhatacharya* explained *Khalitya* in one among *kapalagata rogas*<sup>10</sup>. *Madhavkara* told *Indralupta, khalitya*, and *Ruhya* as synonyms. *Vagbhatacharya* explained sudden hairfall will be *Indralupta* whereas gradual hairfall will be *Khalitya*. In *Khalitya vata* and *pitta* dosha causes hairfall and *Kapha* and *Rakta*

*dosha* obstruct hair roots.<sup>11</sup> Here *Pracchana Rak-tamokshana* done with the help of Dermapen helps to remove the *Dooshita Kapha and Rakta*, and the blocked hair follicle will be regenerated and help to hold the hair on the scalp. All the Oral conservative medicines prescribed here are *Saptamrutaloha* for *Keshavardhana*, *Kukkutandatwak vati* as supportive treatment of *Asthi Dhatu* as *Kesha* is *Mala* of *Asthi Dhatu*, *Narasimha rasayana* as a special type of *Rasayana* indicated in premature greying of hair and hair loss and has *Vata-Pittahara* property.

## CASE REPORT

History of the presenting illness: A 42 yrs. an old female lady came to O.P.D with a chief complaint of thinning of hairs with female pattern baldness. Around about 4 yrs, back she was in a healthy situation. Later initially thinning of hair started and then hair started shedding of hairs. She has taken treatment with allopathic medicine but is not satisfied. When she visited O.P.D., first of all, we carried out her routine blood investigation with as complete blood count, and haemoglobin examination to rule out any possible associated disorder but the findings of these investigations showed, and the rest of the other findings were found within normal limits. There was no significant past history of any other chronic illness in a patient. No history of any type of addiction was found.

## TREATMENT PLAN

Treatment started to remove *Dooshita rakta* by *Pracchana karma* with the help of Dermapen where *Sushkma raktasrava* was noted simultaneously with internal medications for 3 months. A total of twelve sittings of *Pracchana karma* were done at the interval of 1week along with internal medications for 3months regularly.

### Method of *Pracchana*

*Pracchana* with Dermapen is a unique procedure where it is the most effective method of bloodletting so as to open up the hair follicles and the formation and growth of new hairs. During each session of *Pracchana*, the patient is told to have a head bath,

then the scalp is prepared with betadine and normal saline. A Dermapen width cartridge needle of the length of 1.5mm size is taken of 12 needles and pricking is done over affected areas of the scalp in multi-directions with firm pressure until pinpoint bleeding is noted. The patient is advised not to apply anything for 24 hours and then application of routine oil there after. Once every week, *Pracchana* was done. After 3 months the patient was examined for the presence of hair follicles and the growth of hair over the affected area. The criteria of assessment were done by digital photography and clinically by the presence of hair on the affected site of the scalp.

## DISCUSSION

Every research work discussion finds a very important section that explores the underlying study & possible implications and gives light on a new scope of the study. Hence, here is an attempt to discuss the concept, observations, and experiences with the new technique of using Dermapen for *Pracchana Karma*. Globally 50% of women realize their hair starts to fall at the age of 40. This is one essential cosmetic disorder that affects a person psychologically.

Along with *Pracchana karma*, the patient was administered oral medication like *Saptamritloha* and *Asthi Poshakavati*, and *Narasimha rasayana*. *Saptamritloha* balance *Tridosha*, mainly *Pitta*, provides strength to hair and source of iron which is very important for hair growth. Second is *Asthiposhakvati*, as hair (*kesha*) is *mala* of *Asthi dhatu*, it is very essential to give nutrients to *Asthidhatu* to support hair fall. In *Asthi Dhatudusti* hair fall occur, and hair growth doesn't happen in a proper manner. So a rich source of calcium and promote healthy bone and bone density which indirectly support the hair and give density to hair and stop hair fall from *Asthiposhaka vati*.

*Narasimha Rasayana* is a special type of *Rasayana Yoga* explained in *AstangaHridaya*. Its main indication is premature greying of hair and hair loss and has *Vata-Pittahara* properties. The other benefits of this formulation are to improve immunity, physical strength, complexion, and libido that speak about its rejuvenation action.

**Table No1: Oral drugs, composition dose, and its Effects :**

Name of the drug	Composition	Dose	Frequency	Duration	Effect
<b>Saptamrit Loha</b>	<i>Yashtimadhu, Triphala, Shudha lohabhasma</i>	2 tabs 500m G	Twice a Day	3 months	Balance <i>pitta dosha</i> , source of iron
<b>Ashthiposhak Vati</b>	<i>Kukutandatwakhbhasma, Ashthishrinkhala, Arjuna, Ashwagandha, Guduchi, Bala, Babul, Shudha-guggulu, Shuddhalaksha, Amalaki.</i>	2 tabs 500m G	Twice a Day	3 months	Balance <i>vata dosha</i> , Ca supplement Promote healthy bone and bone density.
<b>Narasimha rasayana</b>	<i>Khadira, Triphala, Bhringaraja, Chitraka, Kasisabhasma, Asana, vidanga</i>	2 tabs	Twice a day	3 months	Strengthen hair roots, prevents split ends and damage, prevents premature greying of hair, and Acts as a nutritional supplement

*Pracchana* creates tiny punctures which help to stimulate dermal papilla in hair follicles and encourages growth factors through the body's natural defence mechanism and helps in reversing thinning of hairs. The principal of the *Pracchana Karma* helps in removing *Avarodha* of fine channels and obstructed *Romakupa* along with increasing *Chala guna* and blood supply. The physical damage done by puncturing the Epidermis and Dermis causes an inflammatory tissue reaction to repair the damage. The inflammatory reaction stimulates the Dermal Fibroblasts to activate the follicles. *Dermapen* on the scalp helps to stimulate the reactivation of the hair growth cycle resulting in better hair growth and facilitating hair fall reduction. *Dermapen* work in two ways- in addition to prompting the scalp to produce more collagen and thus supporting the growth stage inside the hair follicle, it also improves blood flow. The epidermis reacts to the wound by sending more blood to the wound to heal it<sup>1</sup>. Mechanisms of hair re-growth induced by Microneedling include the Release of platelet-derived growth factor, epidermal growth fac-

tors increased through platelet activation, and skin wound regeneration mechanism.

## CONCLUSION

*In Khalitya Raktamokshana* is the only *shodhana* procedure where the vitiated *doshas* are taken out from the local route. *Pracchana* is one among the *Shastrakrita raktamokshana* in which multiple small incisions/pricks are made to irrigate the impure blood. Over a short period of time, in cosmetology and trichology the Microneedling has gained mass popularity and acceptance as it is a simple, cheap, safe, and effective technique requiring minimal training. *Pracchana* improves the perifollicular with this line of treatment was done using a modernised machine *Dermapen* which has a similar mode of action as that of *Trikurcha shastra*.

In this present case Patient having reported with significant improvement after 12 sittings of *Dermapen* with 1 week interval period along with internal medication. Thus, an effort is made to present the effect of *Dermapen* on *khalitya* patients which is a less invasive and cost-effective treatment.

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**Fig 1: Dermapen**



**Fig 2: Cartridge**



**Fig 3:**

**Before : 1<sup>st</sup> Day of OPD**



**After : 3months after treatment**

