



Case Study

AN AYURVEDIC MULTIMODULAR TREATMENT OF ALOPECIA TOTALIS (*KHALITYA*) W.R.T *PANCHAKARMA*: A CASE REPORT

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ABSTRACT

Alopecia areata is characterized by circumscribed non-scarring loss of hair in single or multiple patches over the scalp or body hair. Histopathology shows perifollicular and intrafollicular inflammatory cells infiltrate composed mainly of lymphocytes, described as swarm of bees' appearance. The characteristic lesion is an asymptomatic, smooth bald patch with normal skin within the patch. Fine regular pitting of nails and tachynochia is a common association. When the hair loss involves the entire scalp it is known as alopecia totalis. *Khalitya* in Ayurveda is a disease in which *Pitta* combining with *Vata* and getting into the pores of hairs (hair follicles) cause fall of hair, and then *Kapha* along with *Rakta* obstructs the pores of those hairs and makes it impossible for other hair to grow. As it does not destroy the hair follicles the potential for the re-growth is maintained for many years. However growth in alopecia totalis and universalis is limited. **Material and Methods:** The present clinical study is a case report on the efficacy of *Shamana* (pacification) medication along with *Vamana* (therapeutic emesis), *Virechana* (therapeutic purgation), *Basti* (therapeutic Enema) and *Nasya* (therapeutic nasal medication) and *Raktamokshan* (therapeutic bloodletting) in the management of a patient diagnosed as Alopecia totalis. **Results:** There was significant re-growth of the hair of the scalp. SALT Score improved from 97.76 to 2. **Discussion:** The collected data from this study suggests that Ayurvedic *Shodhana* (Purification) treatment along with *Shamana* medications can provide an efficient result for managing Alopecia totalis.

KEYWORDS: Alopecia, *Khalitya*, Bloodletting, *Jalouka*, Leech therapy, Hirudo therapy, *Panchakarma*, *Vamana*, *Virechana*.

INTRODUCTION

Alopecia areata is an autoimmune condition that attacks the hair follicles, causing non-scarring hair loss^[1]. A systemic review of the epidemiology of Alopecia Areata indicates a worldwide lifetime incidence of around 2%^[2]. During the active stage of the hair loss, pathognomic 'exclamation mark' hairs are seen (broken off hairs 3-4mm long, which taper off towards the scalp). This condition may involve the eyebrows eyelashes and beard. Pitting and longitudinal wrinkling of the nail may be seen. The hair usually re-grows spontaneously in small bald patches, but the outlook is less good with larger patches and when alopecia appears in early life along with atopy. Spontaneous remission occurs in 90% of patients with small patchy loss of hair and duration of <1year.^[3] The exact pathophysiology of the disease is currently unknown. However, evidence suggests that Alopecia Areata is caused by an autoimmune reaction to the hair follicles due to both genetic and environmental factors^[4].

Potent topical steroids and intralesional steroids are commonly used. Other options include contact immune therapy with dinitrochloro benzene (DNCB), squaric acid dibutylester (SADBE) and diphenyl-cyclopropene (DPCP), photochemotherapy, topical minoxidil and dithranol.^[5]

Increased hair fall in Ayurveda is termed as *Khalitya*^[6] and classified under *Shiroroga*. Ayurveda uses three terms to describe the symptoms of hair loss which are *Indralupata*, *Khalitya* and *Ruhyam*. According to *Charaka* and *Vagbhata* hair to originate from the "Asthi" or bone tissue, and therefore, to treat hair loss, medicines to strengthen bone are given orally on a long-term. Ayurveda treatments of alopecia are designed to restore *Dosha* in balance to individuals and address particular imbalances in the "Asthi," or bone tissue.

Ayurveda has described hair problems under *Kshudra Roga*, *Shiroroga* as *Khalitya*, *Palitya*, *Indralupta* etc. *Indralupta* is a specific condition

characterized by hair loss in form of patches in some scalp areas by the vitiation of *Tridosha* and *Rakta Dhatu*. *Pitta* associated with *Vata* gets lodged in *Romakupa* and causes hair fall, later on *Kapha Doṣa* associated with *Rakta* causes obstruction to the hair roots and restricted the regrowth. *Indralupta* is one among the *Kapala Gata Roga* and *Kṣudra Roga* by *Vagbhata* which is characterized by loss of hair.

CASE REPORT

A 23 years old female patient was referred to Panchakarma OPD of All India Institute of Ayurveda on 27 February 2017 with UHID No.159758. She was asymptomatic 8 years back but gradually developed itching of scalp with patchy hair loss. There was further frontal and temporal recession and patch of baldness on the vertex. Finally, parietal and occipital

region hair loss leading to complete baldness of scalp, eyebrows and eyelashes associated with mental stress and disturbed sleep. She has taken conventional treatment (steroid therapy) for 2 years but did not find any improvement in her condition.

There was no personal history of autoimmune disorders or family history in first degree relation suggestive of these disorders.

The patient was clinically diagnosed as case of *Khalitya* (Alopecia totalis) and planned for *Panchakarma*. As the patient was found difficult to spare the time for hospitalization for *Panchakarma* processs. So, she was shifted on *Shamana* treatment with *Jaloka Avacharana* and *Prachana* simultaneously.

Table 1: Asthavidha Pariksha^[7]

S.No.	Factor	Observation
01	<i>Naadi</i>	<i>Pitta -Vataja, 78/min</i>
02	<i>Mala</i>	<i>Sa-Ama</i>
03	<i>Mutra</i>	<i>Snigdha sheeta (Kaphaja)</i>
04	<i>Jihwa</i>	<i>Kaphaja</i>
05	<i>Shabda</i>	<i>Spashta</i>
06	<i>Sparsha</i>	<i>An-Ushana-Sheeta</i>
07	<i>Drik</i>	Normal
08	<i>Akriti</i>	<i>Pitta-Vataja</i>

Table 2: Dashavidha Pariksha^[8]

S.No.	Factor	Observation
01	<i>Prakriti</i>	<i>Pitta Vataj</i>
02	<i>Vikriti</i>	<i>Pravara Tridoshaja</i>
03	<i>Saara</i>	<i>Twaka</i>
04	<i>Samhanana</i>	<i>Madhyama</i>
05	<i>Satmya</i>	<i>Madhyama</i>
06	<i>Satwa</i>	<i>Avara</i>
07	<i>Ahara shakti</i>	<i>Madhyama</i>
08	<i>Vyayama shakti</i>	<i>Madhyama</i>
09	<i>Vaya</i>	<i>Madhyama</i>
10	<i>Bala</i>	<i>Madhyama</i>

Material and Method

Table 3: Treatment Plan

S.No.	Treatment Plan	Days
01	<i>Shamana/Deepana Pachana</i> ^[9]	First 15 days
02	<i>Sneha Pana</i> ^[10]	16 th – 20 th Day
03	<i>Abhyanga/Swedana</i> ^[11]	21 st and 22 nd Day
04	<i>Vamana</i>	22 nd Day
05	<i>Samsarjana Krama</i> ^[12]	22 nd - 26 th Day to <i>Madhyama Shuddhi</i>
06	<i>Deepana Pachana</i>	26 th - 30 th Day
07	<i>Snehapana</i>	31 st - 35 th Day
	<i>Abhyanga Swedana</i>	35 th – 38 th Day

08	<i>Virechana</i>	38 th (24 Vegas observed)
08	<i>Samsarjana Krama</i>	38 th – 42 nd Day According to <i>Madhyama Shuddhi</i>
09	<i>Shamana</i>	43 rd -63 rd Day
10	<i>Jalouka Avacharana</i>	On 64 th , 71 st , 78 th , 85 th , 92 nd , 99 th , 106 th , 113 th Day
12	<i>Brimhan Basti</i>	114 th – 122 nd Day
13	<i>Shamana</i>	123 rd – 143 rd Day
13	<i>Nasya</i>	144 th – 151 st Day
14	<i>Shamana</i>	152 nd – 182 nd Day
15	<i>Pracchana</i> along with <i>Shamana</i>	183 rd , 190 th , 197 th , 204 th , 211 st , 218 th , 225 th , 232 nd Day after 7 days interval
16	<i>Shamana</i>	183 rd -232 nd Day
17	Follow up	262 nd Day
18	Total duration of treatment	262 Days

Table 4: Medicine Used in this study

S.No.	Treatment given	Medicine used	Dose
01	<i>Shamana</i>	<i>Kaishore Guggulu</i> ^[13]	2tab (three times a day before food)
		<i>Aragavadha Kashaya</i> ^[14]	15ml (three times a day before food)
		<i>Patolakatu-rohiniadi Kashaya</i> ^[15]	10ml (three times a day before food)
		<i>Saraswata Arista</i> ^[16]	15ml (three times a day after food)
		<i>Bhringraja Asava</i> ^[17]	15ml (three times a day after food)
02	<i>Deepan Pachana</i>	<i>Chitrakadi Vati</i> ^[18]	1tab (three times a day before food)
03	<i>Snehapana</i>	<i>Triphala Ghrita</i> ^[19]	450ml
04	<i>Sarvanga Abhayanga</i>	<i>Nalpamaradi Keram</i> ^[20]	200ml
05	<i>Bashpa Swedana</i>	<i>Dashmooladi Kwatha</i>	100gm
06	<i>Vamana</i>	<i>Madanphala</i>	10gm
		<i>Vacha Choorna</i>	2gm
		<i>Madhu</i>	10gm
		<i>Saindhava</i>	1gm
07	<i>Deepana Pachana</i>	<i>Chitrakadi Vati</i>	1tab (three times a day before food)
08	<i>Snehapana</i>	<i>Triphala Ghrita</i>	1tab (three times a day before food)
09	<i>Sarvanga Abhayanga</i>	<i>Nalpamaradi Keram</i>	400ml
10	<i>Bashpa Swedana</i>	<i>Dashmooladi Kwatha</i>	200gm
11	<i>Virechana</i>	<i>Trivrit Avleha</i>	80gm
		<i>Triphala Kwatha</i>	100ml
12	<i>Brimhan Basti</i> ^[21]	<i>Balamooladi- Kwatha</i>	240ml
		<i>Madhu</i>	60gm
		<i>Saindhava</i>	6 gm
		<i>Shatavari- Ghrita</i>	90 ml
		<i>Ashwangandha Mahushashti-Kalka</i>	30gm
13	<i>Mukha Abhayanga</i>	<i>Asanbilwadi Tail</i> ^[22]	Aporox 100ml
14	<i>Mukha Swedana</i>	<i>Saindhav Yukta Jala</i>	QS
15	<i>Nasya</i>	<i>Anu Tail</i> ^[23]	6 Drops in each Nostril for 7 Days

Table 5: Para surgical Procedure with Medicine/Equipment Used

S.No	Treatment given	Medicine used	Bloodletting schedule
01	<i>Raktamokshana</i> (<i>Jalouka Avacharana</i> - <i>Hirudo medicinalis</i>) (5-6cm size)	<i>Triphala Choorna</i> ^[24] 100gm for <i>Gharshan</i> <i>Shata Dhauta Ghrita</i> (made in AIIA hospital) Cotton Roll 100gm Haldi Powder 100gm <i>Saindhava</i> <i>Lavana</i> 100gm Hypodermic needle 22G Bandage roll (2 inch Wide) 4 No.	8 sitting at an interval of 7 days
02	<i>Pracchana</i>	with lancet	8 sitting at an interval of 7 days

OBSERVATION AND RESULTS**Table 6: Observation**

Day	Observation
Day 1	Assessment done and started medication
Day 26	Mild itching of scalp followed by sparse hair growth over the area of itching.
Day 46	Itching of scalp followed by Dense hair growth. Relief in mental stress. Hair fall was observed.
Day 91	Growth of hair almost over the entire scalp region. 6 patchy areas where re-growth of hair was not observed. Mild hair fall persisted.
Day 143	Dense growth of hairs over the remaining 3 patchy areas. Sparse hair growth over the remaining 3 patchy areas.
Day 231	2 patchy areas where growth of hair is still needed.
Day 262	Mild hair fall over posterior scalp. Thick dense hair growth observed over the rest of the scalp. No itching over the scalp region.

Table 7: Snehapana Format for Vamana

S.No.	Day	Time of <i>Sneha</i> Administration	Time at which <i>Sneha Jirna Lakshana</i> is observed	Dose	Symptoms of proper <i>Snehapana</i> observed on 5 th day.
01	Day 1	6:30 AM	11:00 AM	30ml	<i>Vata Anulomana</i> (Normal functioning of <i>Vata</i>), <i>Dipta Agni</i> (increase in appetite), <i>Snigdha Varcha</i> (Unctuous Stool), <i>Asamhata Varcha</i> (Unformed Stool), <i>Anga Mriduta</i> (Softness of the body)
02	Day 2	6:30 AM	12:15 PM	60ml	
03	Day 3	6:20 AM	1:30 PM	90ml	
04	Day 4	6:25 AM	2:30 PM	120ml	
05	Day 5	6:35 AM	4:00 PM	150ml	

Table 8: Vamana Format

S.No.	Time of <i>Vamana Yoga</i> Administration	Time of <i>Vamana Vega Pradurbhava</i>	No of Vegas observed	Symptoms of proper <i>Vamana Lakshana</i> observed
01	6AM	6:40AM	6 Vegas	<i>Pittanta Vamana</i> (<i>Vamana</i> ending with expulsion of <i>Pitta</i>), <i>Sharira Laghuta</i> (Lightness of the body). <i>Endriya Vishuddhi</i> (Clarity of senses)

Table 9: Snehapana Format for Virechana

S.No.	Day	Time of Sneha Administration	Time at which Sneha Jirna Lakshana is observed	Dose	Symptoms of proper Snehapana observed on 5 th day
01	Day 1	6:20 AM	11:45 AM	30ml	<i>Vata Anulomana</i> (Normal functioning of <i>Vata</i>), <i>Dipta Agni</i> (increase in appetite), <i>Snigdha Varcha</i> (Unctuous Stool), <i>Asamhata Varcha</i> (Unformed Stool), <i>Anga Mriduta</i> (Softness of the body)
02	Day 2	6:30 AM	12:05 PM	65ml	
03	Day 3	6:25 AM	1:30 PM	95ml	
04	Day 4	6:45 AM	2:45 PM	130ml	
05	Day 5	6:30 AM	3:30 PM	160ml	

Table 10: Virechana Format

S.No.	Time of Virechana Yoga Administration	Time of last Virechana Vega Pradurbhava	No of Vegas observed	Symptoms of proper Virechana Lakshana observed
01	10:00AM	7:15PM	24 Vegas	<i>Kaphanta Virechana</i> (<i>Virechana</i> ending with expulsion of <i>Kapha</i>), Clarity of senses, feeling of lightness of the body.



Image 1: Before Treatment



Image 2: After Treatment 1



Image 3: After Treatment 2



Image 4: Follow up

Salt Scale Scoring [25]

Effect of treatment on SALT Score

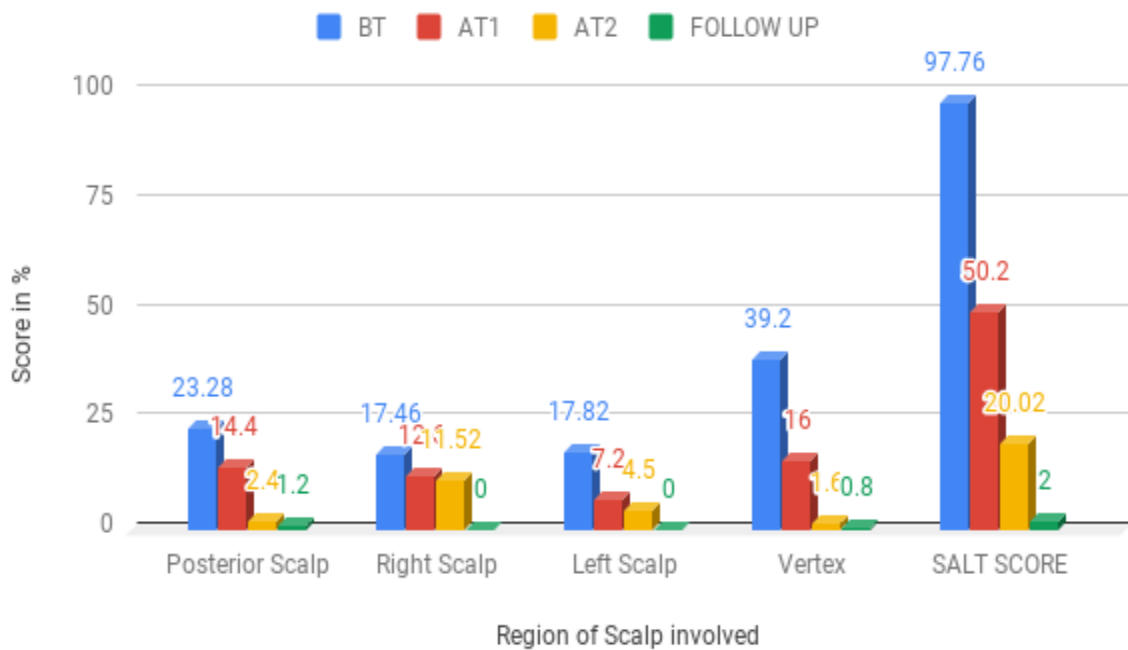


Fig.1 Graph showing effect of treatment on Salt Scale

DISCUSSION

Alopecia totalis is usually self limiting and re-growth of hair occurs within a year. The patient came to Panchakarma OPD unit of AIIA, with a history of 8 Years, its chronicity indicating the increased degree of vitiated *Doshas*.

Thus a judicial line of management comprising of *Shamana* medications along with *Shodhana* therapy was planned henceforth.

Khalitya is described as one of the *Kshudra Roga* by Acharya Sushruta where there is involvement of *Tri Dosha* and *Rakta Dhatu*. Acharya Charaka described *Khalitya* under *Shiro Roga* where there is involvement of *Vatadi Dosha* and *Ushma* (Internal Heat) of the body. Hence internal medications possessing *Keshya* properties which also purifies the *Rakta Dhatu* and mitigates the *Tri Dosha's* was administered.

Initially *Deha Shodhana Karma* was done via *Vamana*, *Virechana* and *Raktamokshana*, then *Brimhana Karma* was done via *Basti* and *Nasya Karma* for the *Rasadi Dhatus* which will eventually lead to the proper formation of *Kesha*.

Considering the pathology of *Khalitya* as described by Acharya Sushruta, *Shodhana* by means of *Vamana Karma* to relieve the obstruction in the *Srotasa* due to *Kapha Dosha* was carried out initially. The active principle of *Vamana* drug taken orally is absorbed from the stomach into the circulatory system where it is circulated all over the body. On reaching the site of lesion (*Dosha Sanghata*) which is at the cellular level it breaks the nexus of *Dosha's* bringing the toxic substances into the stomach, where from they are expelled out from the body by the action of vomiting.

Virechana was then administered considering the involvement of *Pitta Dosha* which along with *Vata Dosha* caused the falling of the hair. *Pachaka Pitta* along with *Samana Vayu* is responsible for the digestion of *Chaturvidha Ahara* consumed, leading to the proper formation of *Rasaadi Dhatus* and the excretory products like *Mutra*, *Purisha* etc. *Pachaka Pitta* boosts the *Bhutagni* to convert all exogenous substances into endogenous i.e., *Vijatiya* to *Sajatiya* and also boosts the *Dhatwagni* for neo-synthesis and for maintenance of the *Sapta Dhatus*. Considering adequate removal of obstruction caused due to *Kapha Dosha* and the outcome of normalcy in the function of *Pachaka Pitta* through *Virechana Karma* will result in adequate regulation of metabolism for the proper formation of *Rasadi Dhatus* and eventually its waste product i.e., *Kesha* as *Kitta Bhaga* of *Asthi Dhatu*.

Understanding the pathophysiology and histopathology of the disease we see that there is

involvement of CD4+ and CD8+ T-Cell mediated autoimmune pathway which indicates morbidity of *Rakta Dhatu*. Elimination of this *Dushita Rakta* by means of *Raktamokshana* justifies the treatment protocol as described by Acharya Sushruta. Acharya Sushruta mentioned *Siravyadha* as the method of *Raktamokshana* for *Khalitya* but since the patient being *Sukumara* and having *Alpa Satwa*, *Jalouka Avacharana* was adopted. As the treatment progressed and the area of growth of the hair increased, *Raktamokshana* was done via *Pracchana* in smaller areas where hair growth was needed. *Pracchana* eliminates vitiated blood from an area within 1 *Angula*.

Acharya Vagbhata describes untimely falling of hairs as an outcome of *Asthi Kshaya*. According to Acharya Charaka, hair of the head is the *Kitta Bhaga* of *Asthi Dhatu*. *Vata Dosha* predominantly resides in *Asthi Dhatu*. When the *Vata Dosha* does its normal functions appropriately along with proper nutrition to the *Asthi Dhatu* through the *Asthivaha Srotasa* there will be proper formation of *Kesha*. Hence *Basti* prepared with bitter drugs possessing *Asthi Poshak Gunas* along with ghee and milk was administered. *Basti* is the best treatment for *Vata Dosha* and also for ailments arising due to morbidity of *Asthi Dhatu*.

Nasya (*Brimhan Nasya/Snehana nasya*) was done with *Anu tail*, as it is prepared by drugs possessing mainly *Brimhana* properties. Acharya Charaka indicates the use of *Anu Tail* as *Nasya* for alleviation of *Khalitya*.

CONCLUSION

This case study shows the satisfactory successful management of Alopecia totalis viz-a-viz *Khalitya* through Ayurvedic Panchakarma line of management. Research works to validate the efficacy of Ayurvedic Panchakarma management of Alopecia totalis should be undertaken, considering the promising recovery in the present case.

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