



CASE STUDY ON HYPERANDROGEN INDUCED HIRSUTISM

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ABSTRACT

Beauty is the quality which gives pleasure to the senses or the state of being beautiful which increases the self confidence of an individual. There are some hormonal metabolic disorders which affects on beauty and reduces the self confidence, due to rejection in the society causes depression and anxiety. Hirsutism is one among them. Hirsutism is male pattern of hair growth in females that is excessive body hair growth on parts of the body where hairs is normally absent or minimal. Around 5 to 10% of women are more prone to such social difficulties. The reason for Hirsutism is imbalanced endocrine metabolism or sometimes may be genetic. Imbalanced endocrine metabolism is a result of unhealthy lifestyle which triggers the pathogenesis. It can be a condition of unknown origin or secondary to an underlying illness. Now a day's many depilation techniques are available like plucking, threading, shaving, waxing, electrolysis, laser therapy etc. These hair removal procedures cause complications like skin lesions, minor burns, scarring, inflammation, regrowth etc. Some methods are highly expensive for a common man to afford. Here an attempt is made to show the Ayurvedic management of hirsutism.

Key words: Hirsutism, Ayurveda, Hyperandrogen induced hirsutism

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INTRODUCTION

Ayurveda the science of life emphasizes on healthy lifestyle and diet for the prevention of disease. But today's lifestyle is characterized by impaired diet and regimen paving way towards many non-communicable, metabolic and lifestyle disorders. Hirsutism is one such multi factorial and a polygenic endocrinopathy. It is characterized by the male pattern of hair growth in females. Though the problem appears to be a cosmetic one yet hyper androgenism is the lynchpin behind the entire pathogenesis.

Natural beauty is blessing and cosmetics help in presenting and increasing the beauty and personality aspects of human beings. Hair is a natural ornament for which every one of us would flaunt for. Thick, long, lustrous and beautiful hair on scalp is an all-time demand. Presence of hair in undesired area can be as devastating as its absence on scalp and is definitely a penance! Presence of such unwanted hair in male pattern in case of women i.e., on the chin, upper lip, peri-areolar area, thighs, etc., is called as Hirsutism.

Hairs are categorized as either Vellus (Fine, soft and non-pigmented) or terminal (long, coarse and pigmented). The number of hair follicles does not change over an individual's lifetime, But the follicle size and type of hair

can change in response to numerous factors, particularly androgens. Androgens are necessary for terminal hair and sebaceous gland development. There are three phases in cycle of hair growth (a) Anagen (Growth phase) (b) Catagen (Involution phase) (c) Telogen (rest phase). Depending on the body site, hormonal regulation plays an important role in the growth of cycle. For example, the eyebrows, eyelashes and vellus hairs are androgen sensitive, where as the axillary and pubic area are sensitive to low level of androgens. Hair growth on the face, chest, upper abdomen and back requires greater level of androgens. Androgen excess in the women leads to increased hair growth in most androgen sensitive area leading to hirsutism.^[1] Hirsutism in general it is defined as excessive body hair growth in men and women, on parts of the body where hairs are normally absent or minimal. Hirsutism is more serious problem in female individuals which affects around 5-10% of women. Presence of terminal coarse hairs in females in a male-like distribution cause psychological distress and social difficulty. Hirsutism is attributed either to increased production or increased sensitivity of the hair follicles to the circulating androgen. In majority of patient's hirsutism should be considered as a sign of conditions like endocrinal pathology. The exception is

idiopathic hirsutism (IH), also called simple or peripheral hirsutism. The causes of hirsutism may be divided into androgenic factors, non-androgenic factors, and idiopathic hirsutism. Androgenic causes account for major share of patients including polycystic ovary syndrome (PCOS), which affects about 70-80% of hirsute women. Adrenal hyperplasia, thyroid dysfunction, Cushing syndrome, and androgen-secreting tumors, syndromes of severe insulin resistance etc. are the other causative factors. Non-androgenic causes of hirsutism are relatively rare e.g. excess hair growth of acromegaly's. In addition, hirsutism may develop with chronic skin irritation because hair is designed to protect the skin. Non-androgenic anabolic drugs will cause a generalized growth of many tissues, particularly hair. The diagnosis of idiopathic hirsutism is established by clinical exclusion in a patient who is obviously hirsute but in whom the circulating androgens either of the two sexes (male/ female) and ovulatory function in female subjects appear to be normal.

In *Ayurveda* Loma (hair) is a *ParthivaDravya* considered to be developed from *PitrujaBhaava*^[2] during antenatal period. According to *Acharya Charaka*, Loma is considered as *AsthiDhatu Mala* and is rooted in the 6th layer of the skin. According to *Acharya Vagbhata* Loma develops during 6th month of intrauterine life. There is no direct

term for Hirsutism in *Ayurveda* but we can decipher relative aspects from multiple references. In *CharakaSamhithaSutra SthanaAstauninditeeyamAdhyaya*^[3], we come across *Atiloma* and *Aloma* individuals where excessive hair growth on the entire body / Complete absence of hair is mentioned. In *KasyapaSamhitha* while delineating about *Graharogas* the author emphasizes about *Pushpaghni*, one among three types of *Jataharini* characterized by *SthulalomashaGanda*^[4] i.e. one with corpulent and hairy cheeks. This presence of hair on chin can be compared with facial Hirsutism. Professor P.V.Tiwari while commenting on the same regarding *Pushpaghni* which is a type of curable *Jataharini* has opined it to be anovular menstruations with Hirsutism.⁽⁵⁾ (on eight undesirable persons), we come across 'Atiloma' and 'Aloma' individuals where excess hair on the entire body

In this article we have tried to cover the importance of hairs, and Action of *Lomashatana Lepa* and *Shamanoushadhi*. This case is special because the patient was on medication for three years without any results in sign and symptoms. After starting with our medicine she got moderate results within three months.

Case study

A female Patient of 16 years old visited the OPD OF KAYACHIKITSA, Ayurveda Mahavidyalaya. On taking history following symptoms were present-

Excessive body hair growth since five years, more over face.

Blackish discoloration around neck.

Pimple over face since two years.

Weight gain since two years.

On examination :

Excessive hairs were seen over both the chicks and upper lip.

Hair were long ,curly and thin in nature.

Thick ,dark hair were seen on hands and legs.

Hyperpigmentation around neck was seen.

Weight – 88kg ,BMI – 31.4kg/m²

Menstrual history – 4-5 days/28-30days, regular

Appetite – Increased

Bowel – Clear (Once a day)

Micturition – Clear,(4-5 times per day)

Sleep – Increased

Patients advised Blood investigations:

USG- 30-05-2019

Duodenano-jejunal flexure in midline, ileo-caecal junction is highly placed in right lumbar region.Small bowel loops predominantly to right side.Stomach,small and large bowel loops are normal in calibre and wall thickness.

Table No.1 Investigations

Complete Hemogram- 30-05-2019	Hb %	12.3 gm/d	7500
	WBC	Cells/cumm	
	ESR	40 mm/1 st h	
	RBC	3.69mil/Cum	
	Platelet	3.15Lakh/cumm	
Biochemistry report – 30- 5-2019	Fasting blood sugar	86.4mg/d	
	Creatinine	0.8mg/dl	
Androgen index – 30-05- 2019	TestosteroneTotal	53.96ng/dl	
	Sex hormone binding globulin (SHBG)	8.6nmol/L	
	Androgen index	21.70	
	Follicle stimulating hormone serum	8.81mIU/ml	

	Insulin, Fasting, Serum	11.83uU/ml
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Patient was on continuous prescription of antidiabetic and steroidal medications because of which she started putting weight and no change in hair growth, so she chose to take Ayurvedic treatment.

According to *Ayurveda* this was considered under *Lomagata Vyadhi*, and patient came with chief complaint of excessive hairs only, based on this following treatment was advised which proved beneficial for the patient.

Shadadharana tablet 1 – Twice a day

Chandraprabhavati 1 – Twice A Day

Pushpadhanvayas rasa – 1 Twice a day

GandhakaRasayana – 1 Twice a day

Anu Tail – 4 drops Twice a day each nostrils

Vacha and *Raktachandana*–*Sthanika*

Udvardana

Lomashatana Lepa

Result-

Treatment was initially started with above mentioned *Shamanoushadhis* along with *Stanic Udvardana* with *Vacha* and *Raktachandan* was advised for 20 days but the result was very minimal.

First follow up–

After the follow up of 20days, patient presented with the same complaints with very minimal hair loss. Based on presenting complaints *Lomashatana Lepa* was planed and applied on opd basis by taking necessary aseptic measures. To prevent the skin irritation *GandhakaRasayana* was advised orally for five days along with above mentioned *Shamanoushadhi*.

Same treatment was continued for 30 days and appreciable hair loss was seen with reduced blackish discoloration around neck, and same treatment was advised to continuo for six month.

Table No.2 Ingredients of Lomashatana Lepa

Ingredients	Guna
1)Haratal	<i>Rasa – Katu, Kashay, Tikta</i> <i>Guna – Snigdha, Ushna</i> <i>Karma - Shleshma, Raktahara</i>
2)Shankha	<i>Rasa – Kshara</i> <i>Guna – Sheeta</i> <i>Karma – Kaphavatahara, Grahi, Dipana, Pachana, Tarunyapidaka</i>

3)Yavakshara	Rasa – Katu Guna – Ushna Karma – Kaphavatahara
4)Palasha Kshara	Kshara property

DISCUSSION

In *Ayurveda* mainly the topical applications are used in treatment of hirsutism. The topical paste enters the *Lomakupa*(opening of hair follicle) and damage the follicles to causes temporary or permanent depilation. Mainly the drugs which are having *Kshara* and *Pittakara* property were selected for *Lepa*. *Haratal*(sulphide of arsenic) and *Yavakshara* are *UshnaVirya* drugs, *Shankha* with its *Kshara Rasa* increases the *Pitta* in body. These drugs mainly increase the *Bhrajak Pitta* and weaken the hair roots to cause hair loss. As the famous verse from the text *Charaka Samhita* says an excessive use of *Lavanand Kshara* causes hair loss. *Kshara* (Alkali) is having *Katu* and *Lavan Rasa*. Alkali is corrosive or caustic (*Ksharana* or *Kshanana*) in nature which on contact disintegrates or destroy the tissue element. *Lavana* is having the properties of *Tiksna* (sharp), *Vikasi* and *Kushnati Mamsani* (Depletion of muscle tissue) which are useful in depilation. *Palasha kshara* (Alkali of *Butea monosperma*) and *Shankha Bhasma* has pH of approximately 9.7 and 9.3 respectively, which helps to hair loss and reduces the hair growth.^[6]

CONCLUSION

Hirsutism is a hormonal metabolic disorder, which affects beauty and personality aspects of human beings more commonly the female population. Here the efficacy of *Lomashatana Lepa* was seen, which was applied frequently under aseptic measures. The results were very good in decreasing the density and hairs growth along with *Shamanoushadhi*. The drugs used for *Lomashatana* are having *Kshara, Ushna, Guna* and *Katu, Tikta Rasa* which act at follicle level to decrease the hair growth. *Lomashatana Lepa* has shown the local effect to reduce the hirsutism and *Shamanoushadhis* acts at systemic level to decrease other symptoms.

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