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AYURVEDIC UNDERSTANDING OF HIRSUTISM (ATILOMATA)

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ABSTRACT

In Ayurvedic classics *atilomatā* has been mentioned under *aṣṭa nindita puruṣā*. The disease condition can be considered as the hirsutism which is defined as the presence of male pattern coarse hairs in females. Classical references regarding the various pathological conditions exhibiting *atilomatā* has been detailed. A better understanding of the condition can be applied in clinical practice as hirsutism is having a huge psychological impact in young females. A clear samprāpti as such is not available. Understanding of *samprāpti vighaṭana* is done on the basis of the normal physiology and pathology related in formation of *keśa* and *loma*. *Atilomatā* is seen as a symptom along with some disorders like *naṣṭārtava, prameha, bīja avayava duṣṭi, puṣpagni jātahāriṇi* etc. So based on the pathology of disease and involvement of *doṣā* and *duṣya,* prognosis and management of the disease can be planned.

Keywords: *Atilomatā*, hirsutism, *puṣpagni jātahāriṇi*, *aṣṭa nindita puruṣā,* Ayurveda.

INTRODUCTION: In Ayurveda, *atilomatā* is explained *in Aṣṭau ninditīya adhyāya* of *Caraka Saṃhitā* as a separate entity. *Atilomatā*[1] which is a psychosomatic disease can be considered as hirsutism gives the inferences of endocrinal etiology for the excessive hair growth. Hair is a stratified keratinized epithelium and the hair follicle starts it development from 8-10 weeks of gestation. The lanugo, vellus and terminal are the types of hairs. The lanugo hairs are fetal hairs which are soft and velvety in nature. The Vellus hairs are soft, fine, colorless, and are usually short, grows on the face, chest, and back which gives the impression of "hairless"skin, whereas the terminal hairs are longer, coarser, darker and occasionally curly in nature. The terminal hairs grow on the scalp, pubic, and armpit areas in both adult men and women. The facial and body hair in men is mostly of the terminal type. In males there will be naturally higher level of testosterone, but when it comes to females, considered as a pathological condition i.e., hirsutism in which the excessive hair growth over chin, face, chest, back, upper arm. This condition can be commonly noticed in cases of PCOS, metabolic syndrome associated with obesity, insulin resistance or it may be idiopathic, where normal ovulatory function with normal circulating androgen levels seen. It affects around 5-10% of the women[2] and is a common presenting complaint in the Out Patient Department for cosmetic reasons

A glance to *loma utpatti:* The term *loma* refers to the body hairs[3], *śarīrasya keśa***.** *Tanuruham* and *roma* are synonyms of

*loma***.** The *pāñcabhautikatā* of *loma* is *pṛthvi mahābhuta*[4], which is considered one among the *ṣaṭbhāvā* of *garbhā*. It develops from 6th month of *garbhā*. *Keśa* and *loma* are considered as *mala* of *asthi dhātu*.[5] In *Sharangadhara Samhita, purvakhanda*, also *roma* is mentioned as *dhātu mala* of *asthi*[6]. *Āhara Rasa* under the action of *jāṭarāgni and dhātvāgni* gets converted into *prasāda bhāga* and *kiṭṭabhāga. Uttarottara dhātu poṣaṇa* under the action of *asthi dhātvāgni,* results in the formation of *asthi dhātu, poṣya majjā dhātu* and *keśa lomadi mala*[7]. According to *suśruta Saṃhitā*; nourishments of *keśa* is from the end part of *dhamini*, which are attached to the *lomakūpa*[8]. *Keśotpatti kāla* in fetus is considered as 7th month and 6th month of gestation respectively by *Caraka Saṃhitā* and *Aṣṭāṅga saṃgraha*. In *Caraka*, *śarīra sthāna* there mentioned regarding the nourishment of *garbhā* through *loma kūpa* by *upasneha* prior to the development of placental circulation.[9]

Keśa Lomadi saṃkhyā[10] : Hairs are uncountable. It varies according to different *ācaryā*s. According to *suśruta Saṃhitā, keśa lomadi saṃkhyā* are innumerable. There are approximately 50 million hair follicles[11] covering the body, of which 100,000 to 150,000 are on the scalp; And the remaining follicles are on facial and other body sites. The only areas free of hair follicles are the soles of the feet, palms of the hands, and the lips[12]

Kesha* in relation to *prakṛti: According to the *prakṛti* of a person, the features of *keśa*, *loma* varies. The nature of *keśa*[13],[14] in relation with different type of *prakṛti* persons also changes accordingly. In case of *vāta prakṛti dhūsara varṇa* having features of *sphuṭita alpa keśa, pittala prakṛti* possess grey hairs *piṅgala varṇa* whereas the *śleśmala prakṛti* having dark colored as well as *snigdha* and *ghana* in nature.

Relationship of *tvak* and *lomakūpa* with different aspects of *srotas, dhātus* and *sārapuruṣa's:* *Loma kūpa*[15]is mentioned as the *mūla sthāna* of *Svedavāha srotas*[16]. *Krodha, śoka, bhaya* are mentioned as some of the *nidāna* of *Svedavāha sroto duṣṭi* [17]leading to *lomaharṣa*, which is one of the *Svedavāha sroto duṣṭi lakṣaṇa*. *Snigdatva* of *tvak*[18] is also due to *Sveda*, by which the *Svedavāha sroto duṣṭi* along with the *rasavāha sroto duṣṭi* which is related to *tvak* is responsible for variation in the functions of *lomakūpa. Tvak* is also having the relationship between *rakta dhātu* as varṇa *prasādana*[19], i.e.; it imparts color to skin. *Tvacha* is the *upadhātu* of *maṃsā*[20] whereas *keśa* is the *upadhātu* of *majjā dhātu*[21] while *Śāraṅagadhara* [22] also explains *keśa* as *upadhātu* of *majjā*.

Caraka Samhita mentions that the skin of the *tvaksāra puruṣā*[23] is *snigdha, ślakṣaṇa, komala, prasanna, sūkṣma and prabha yukta* whereas the *Meda sāra puruṣa's*, possess excessive unctuousness in their complexion and they have beautiful hair on the head, face and body.[24]

Rakta sāra puruṣa lakṣaṇa [25] also includes healthy status of *tvak. Rasakṣaya* also presents with *raukṣya* which will be exhibited on *tvacha.*

The relationship between *tvak, lomakūpa* and also *aśraya āśrayi sambandha* of *maṃsā, majjā* etc., with *kapha doṣā* will give the idea that any vitiation of the above *dhātu* will disturb the normalcy of

lomakūpa leading to the pathological condition *atilomatā* which can be clinically compared to hirsutism

Pathophysiology of *Atilomatā:* In *asthi dhātu vṛddhi lakṣaṇa, asthi mala vṛddhi* were mentioned. Here *loma* is one among its *mala* and its excess formation leads to the condition *atilomatā.* By the concept of *aśraya āśrayi bhava* , *vāta* residing in *asthi dhātu* due to its vitiation results in *asthi dhātu vikṛti* resulting in excessive production of *lomadi mala* and there by express as the disease hirsutism.

Caraka in the context of *vividhāśitapītiya adhyāya*[26], explained regarding the proper *āhara dhātu pariṇāmata.* The proper digestion and assimilation of food helps in the proper formation of *śarīra dhātu. Aharaja* and *vihāraja nidāna* will leads to derangement in a particular stage of *dhātu poṣaṇa,* which will results in improper *dhātu* formation resulting in excess formation of its mala i.e.*; lomadi mala* which is seen in case of *asthi dhātu vṛddhi*, exclusively mentioned under *asthi pradoṣaja vikāra* [27].This can be considered as the influence of various food and lifestyle factors which also a leading cause in the manifestation of the disease pathology of *atilomatā*. Excess weight gain is a triggering factor for hirsutism[28]. Regular and frequent exercise to gain fitness and weight reduction in obese patients helps in lowering serum insulin levels and androgen production there by contribute to hair reduction and mitigation of the disease pathology. Healthy eating habits, moderate exercises and weight loss measures should be implemented for obese hirsute women. In the context of *sthaulya* it is explained that there is *medho dhātu duṣṭi* leading to improper *uttarottara dhātu* formation. On analyzing the pathophysiology of obesity, the adipose tissue or fat cells (*medo dhātu*) are responsible for the conversion of androgens into estrogens (aromatization). The more the number of fat cells the more the rate of aromatization. Thus, in obese lady the level of free or unbound estrogens is high which makes them very much prone to successive pathology of PCOS and often leading to a state of hyperandrogenism.

The etiology of the disease is also explained under the genetic factors. In Ayurveda it can be considered under the abnormal formation of *vyañjanāni bhava* due to *bīja bhāga avayava duṣṭi* as explained by *Caraka*. *Atiloma* and *aloma* which are explained in our classics under *aṣṭa nindita puruṣa's* are very difficult to treat. It can be compared with that of chromosomal anomalies (*bīja bhāga avayava duṣṭi*) as seen in "were wolf syndrome" like conditions, which are incurable in which the *bīja bhāga avayava duṣṭi* occurs in *pitṛja bhavas*. The appearances of *vyañjanānibhavas* like *keśa lomadi* are from specific *bīja*[29]. These *vyañjanānibhavas* are the secondary sexual characters which will be developed in later period during puberty. So any abnormality in *bīja* can results in its absence or excess formation of above. This pathology can be correlated with those genetic factors mentioned in manifestation of idiopathic hirsutism which may be due to increased sensitivity to androgens in Pilosebaceous unit[30]. Idiopathic hirsutism[31] is the most common form typically of the familial hirsutism, in which there will be genetic increase in 5α-reductase enzyme activity resulting in

alteration in androgen receptor function[32]. In this condition even though, there will be normal circulating androgens and normal ovulatory functions the patient complains of excessive hair growth. In such conditions along with proper medications, Counselling also plays an important role which helps in stress reduction. Stress is also a contributing factor for the disease, as it produces neuro-endocrinal disturbances.[33]

Acārya Kāśyapa while explaining the context of *Puṣpagni jātahāriṇi*[34] explains the clinical feature of *sthūla lomaśa gaṇḍa*, which can be considered as the abnormal and excessive hair growth over the cheeks. It reveals the endocrinal dysfunction, which is associated with *sthaulya* and *vṛthāpuṣpa*. Only the *Puṣpagni Jātahāriṇi* mentioned by *Kāśyapa* bears some resemblance with symptoms of PCOS, it seems better to consider it as hyper androgenic condition. The *lakṣaṇā's* mentioned is similar to the symptoms of PCOS; *vṛthā puṣpam tu yā nāri* refers to the anovulatory bleeding. Also the hirsutism has been mentioned in the context along with the obesity as part of the disease. Obesity contributes modestly to the risk of developing PCOS and adds to pathophysiology in already affected women by aggravating degree of insulin resistance and hyperinsulinemia. It is also, possible that PCOS itself may, to some extent, predispose to weight gain and obesity. Hirsutism associated with PCOS[35] is due to hyperandrogenism and action of androgens on the hair roots.

Regarding on the concept of *naṣṭārtava*, *stānika vāta kṣaya* can be noticed due to *srotomārgāvarodha* produces *vāta kṣaya* leading to *asthi mala vṛddhi* resulting in manifestation of hirsutism in the PCOS patients.

While explaining *prameha nidāna Acharya Suśruta*[36] have excluded females with regular menstruation are free from developing prameha as their body is getting purified regularly (*raja prasekān narīṇaṃ māsī māsī viśuddhyati*). With this Acharya also indirectly explain that those who are having amenorrhea/ anovulation as in PCOS like condition were always prone for developing *prameha* which is also a *santarpaṇotta vyādhi*. Hirsutism due to PCOS or obesity like conditions can be considered similar to the pathology of prameha which includes *kleda vṛddhi* along with *maṃsā, medha duṣṭi* manifesting in *tvak* resulting in *atilomatā* which is explained above under the relationship of *tvak* and *lomakūpa*. While going through its pathophysiology the insulin resistance can be understood as one of the leading factor in the manifestation of *atilomatā* (hirsutism)

AYURVEDIC MANAGEMENT:

Management of hirsutism in contemporary science, the initial line of treatment is the removal of excess androgen. Thus in Ayurveda, initial line of treatment is *nidāna parivarjana* as well as to treat accordingly by understanding the disease pathogenesis with the guidance of detailed analysis of symptoms, status of *doṣas, dhātus, agni, and srotas.* Depending up on the pathophysiology of *atilomatā*, the line of treatment varies and the treatment plan changes. In condition of *sthaulya*, we have to implement the *medhohara cikitsā*. In case of *artava duṣṭi* as in conditions of *puṣpagni jātahāriṇi*, treatment principle must be of *naṣṭārtava* or *artava kṣaya*. In case of *bīja bhāga avayava duṣṭi*, prior

counselling along with various *śodhana karma* has to be administered for better prognosis. Another method of management of hirsutism is removal of excess hair which can be practiced by using the herbo-mineral formulations like *lomaśātana lepa yogas* in the form of *taila* and *lepas*. In the contemporary medicine the cosmetic hair removal methods has to be repeated regularly for a longer duration which were time consuming , expensive and also has reported some adverse effects . The beauty aids and cosmetics mentioned in our classics can be implemented with this regards for the better management of the disease condition.

CONCLUSION: Thus *atilomatā* mentioned in *Aṣṭau ninditīya* is a disease as well as exhibited as symptoms of certain other disorders as in conditions of *puṣpagni jātahāriṇi, prameha, naṣṭārtava, bīja bhāga avayava duṣṭi, asthi pradoṣaja vikāra* etc. So the proper knowledge regarding its underlying pathology based on the *doṣā duṣya duṣṭi* is necessary. Understanding the disease pathogenesis along with proper counselling and application of various *śodhana* and *shamana oushadhis* are required for better management of the disease entity. Patient education regarding the cause of hirsutism with emotional support and availability of a safe and cost effective treatment is important in the management of hirsutism. The cosmetological approach by applications of various herbo- mineral preparations in form of lepa helps in providing better prognosis.

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