

REVIEW ON VYANGA VIS A VIS MELASMA

Dr. Hrish Bandana Konwar¹ Dr. Bhabesh Das²¹PhD Scholar. Govt. Ayurvedic College, Guwahati. Under SSUHS, Guwahati, Assam, India²Professor & Head, Department of Shalya Tantra, Govt. Ayurvedic College, Guwahati, Assam India

ABSTRACT

Melasma is a common, acquired and symmetrical hypermelanosis characterized by more or less dark brownish maculae, with irregular contour, but clear limits, on photoexposed areas, especially the face, forehead, temples, and more rarely on the nose, eyelids, chin, and upper lips. In *Ayurveda*, vyanga has been elaborated as one of the *Kshudra Rogas* (minor ailments). Vya ga is a disease which belongs to Swalpa variety of K udra Roga. Vayu aggravated by krodha and ayasa, get associated with pitta and suddenly produces a thin, grey coloured circular patch when reaches the face. Both modern and *Ayurvedic* sciences have considered the use of topical as well as oral medications and their combinations for the treatment of vyanga. In *Ayurveda*, vyanga has been treated both by antah-parimarjan and bahi- parimarjana chikitsa. Though, several *Ayurvedic* texts such as *Sushruta Samhita*, *Ashtanga Samgraha* & *Hridaya*, etc., have elaborated the pathophysiology and treatment of vyanga, the available references are scattered. Thus, there is need of in-depth review and compilation of *Ayurvedic* texts and literatures. This review may be helpful in better understanding of comparative pathophysiology and management of Vyanga vis a vis Melasma.

Key words: Melasma, Vyanga, Kshudra Roga, antah-parimarjan, bahi-parimarjana.

INTRODUCTION

Melasma is a common, acquired and symmetrical hypermelanosis characterized by more or less dark brownish maculae, with irregular contour, but clear limits, on photoexposed areas, especially the face, forehead, temples, and more rarely on the nose, eyelids, chin, and upper lips. Even minor changes in the cellular environment affect melanosomes and pigmentation. Numerous intrinsic and extrinsic factors are responsible for a whole range of responses in melanosome structure and distribution under different types of stress.

Cutaneous pigmentation is the out-

come of two important events: the synthesis of melanin by melanocytes and the transfer of melanosomes to surrounding keratinocytes.¹¹ Number of melanocytes in human skin of all types is essentially constant. But the number, size, and manner in which melanosomes are distributed within keratinocytes vary. The melanin content of human melanocytes is heterogeneous not only between different skin types but also between different sites of the skin from the same individual.¹² Besides for the most obvious and thoroughly discussed aspect its role in defining ethnicity, melanin plays an essential role in defending the body against

harmful UV rays and other environmental challenges. Minor changes in the physiological status of the human body or exposure to harmful external factors can affect pigmentation patterns either in transitory (such as in pregnancy) or permanent (e.g., age spots) manners.

MECHANISM OF MELASMA FORMATION:

Darkening of the skin due to the over-production of melanin by overactive pigment cells called melanocytes. However, various factors can provoke melanocytes to go into overdrive, and these different root causes are what distinguish the different types of brown spots. Epidermal melanin deposition causes a brownish appearance, and dermal melanin appears bluish. Combined epidermal and dermal melanin deposition appears gray.

It is a dermatological disease easily diagnosed by clinical examination, typically chronic, with frequent recurrences, great refractoriness to existing treatments, and with many unknown physiopathological aspects.¹⁵

There is no consensus as to the clinical classification of melasma. Two patterns of facial melasma are recognized: **central-facial**, which affects the central region of the forehead, mouth, lips, supra labial area, and chin; and **malar**, which affects the zygomatic region. Some authors also add a third and less frequent pattern, called **mandibular**.¹³

There are countless factors involved in the etiology of melasma, but none of them can be mentioned as the only factor leading to its development. They include: *genetic influences, exposure to UVR, pregnancy, hormone therapy, cosmetics, phototoxic drugs, endocrinopathies, emotional factors, anti-convulsive drugs, and others with historic value*. However, it seems that genetic predisposition and exposure to sun

radiation play an important role, considering that melasma lesions are more evident during or shortly after periods of exposure to the sun.¹⁴

Jointly, comparative studies on skin affected by melasma and normal adjacent skin found that this condition is characterized by epidermal hyperpigmentation without increase in the number of melanocytes, increase in the quantity of melanin in all layers of the epidermis, increase in the number of melanosomes, and augmented dermal elastosis.¹⁵

In Ayurveda, Melasma has been elaborated as one of the Kshudra rogas (minor ailments). Melasma is called as Vyanga in Ayurveda. The literary meaning of *vyanga* is “**vi + a ga**”i.e. (‘vi’ means *vik ta, vigata, vikalā*) *vik ta anga*. Description about *Vyanga* is found in almost all the Ayurvedic classics. Ksudrarogas are those group of disorders which are basically characterized by *alpa rupa* or these are also termed as *Alpa Vyadhi (Shabda kalpa druma)*. They are also known as *Swalpa, Adhama* or *Krura Vyadhi*. *Vya ga* is a disease which belongs to *Swalpa* variety of *K udra Roga*. The word *Vya ga* literally means - Spotted, speckled, freckles on the face, a blot or blemish. *Vya ga* has been described by all the b hatray . A detailed and separate description of *Vya ga* is described in the chapter of ‘*K udra Roga*’ in *Su ruta Sa hit* which includes *Nid na, lak a a, sampr pti* and *s pek a nid na*. Both *Caraka Sa hit* and *Su ruta Sa hit* considers *Vya ga* as a ‘*Raktaja Roga*’ & a common *sampr pti* for *Tilak laka, Piplu, Vya ga* and *Neelik* in *Tri oth ya Adhy ya* has been given. Individuals who belong to *Pitta Prak ti* are said to be prone to *Vya ga*. More elaborate description is available in *Asta ga H daya Uttarantra*, in the ‘*K udra Roga Prakara a*’ where in the *Do nus ra*

Lak a as of the disease are explained in detail. In Madhyak la, Madhava Nid na, arangadhara Sa hit , Bhavapr k a, Cakradatta, Yogaratn kar have described about the disease Vya ga in the context of K udra roga.

CAUSATIVE FACTOR OF VYANGA:

Acharya Charaka did not specify the causes of *vyanga*. Overall according to him pitta vitiated causes are responsible of *vyanga*. As per Susruta, *krodha* and *aayasa* are the causes of *vyanga*. Madhava nidana and Yogaratnakara also support Susruta's point of view. According to Astanga Samgraha and Astanga Hridaya, *soka* and *krodha* are the main causes for *vyanga*.

SIGN & SYMPTOMS OF VYANGA:

As per the classics, *Vyanga* is a thin, grey coloured circular patch which occurs in face. Susruta and his followers gave an additional point regarding rupa of *vyanga*. According to them *vyanga* is painless. Charaka did not specifically mention the rupa of *vyanga*.

Vyanga becomes hard, rough and grey due to *vayu*; surrounding becomes red or blue due to *pitta*; becomes white with itching due to *kapha*; becomes red or coppery coloured in surrounding and possesses burning and pricking due to *rakta*.

PATHOPHYSIOLOGY OF VYANGA:

While describing about samprapti of *vyanga* Charaka said that vitiated pitta by its causes when get dried in *rakta* of *twaka*, *tilakalaka*, *piplu*, *vyanga* and *neelika* develops.

As per Susruta, *vayu* aggravated by anger and physical exertion, get associated with

pitta and suddenly produces a thin, grey coloured circular patch when reaches the face. According to him, second layer of *twaka* i.e. *lohita* is the seat of *vyanga*.

Vagbhatta mentioned that *vayu* aggravated by grief and anger along with *pitta* produces a light, grey coloured circular patch in the face and is called as *vyanga*. He again added that it becomes hard, rough and grey due to *vayu*; surrounding becomes red or blue due to *pitta*; becomes white with itching due to *kapha*; red or coppery coloured in surrounding and possesses burning and pricking because of *rakta*.

TREATMENT OF VYANGA:

As per Ayurvedic classics, *yukativyapashraya chikitsa* is performed in *Vyanga*. Here at first, *raktamokshana* was advised in the affected part. Then after rubbing the affected part *lepa* should be given as mentioned in classics (Table.1). *Samsamana* chikitsa is also given with some classical formulations orally.

Samsodhana chikitsa was also advised in classics, as *vaman*, *virechana*, *nasya*.

In *Samsamana* chikitsa Vagbhatta in *Astanga Samgraha Uttara sthana* in 'Khudraroga pratishedhiya adhyaya' mentioned about four types of medicated *ghrita* preparations to have orally for the treatment of *vyanga* in *Samsamana* chikitsa.

Many formulations are narrated in different Ayurvedic classics in the form of powder, paste, oil, ghee for the treatment of *vyanga*.

TREATMENT FOR VYANGA AS ILLUSTRATED BY VARIOUS ACHARYAS IN THEIR CLASSICS

Sl. No.	Classics	Procedure recommended	Chapter
1.	<i>Sushruta Samhita</i>	<i>Siravedha, Pralepa</i>	Chikitsa Sthan Kshudraroga Chikitsa (20/33-36)
2.	<i>Astanga Hridaya</i>	<i>Siravedha, Lepa</i>	Uttar Sthan Kshudraroga Pratishedha (32/15-32)
3.	<i>Astang Sangraha</i>	Vataj Vyanga - Pana, Abhyanga, Navan, Pralepa. Pittaj Vyanga - Abhyanga, Navan, Virechana, Rudhiravsechan, Lepa. Kaphaj Vyanga - Pana, Navan, Abhyanga, Pralepa. Raktaj Vyanga - Siravishravan, Vaman, Virechana.	Uttar Sthan, Kshudraroga Pratishedha (37/23-33)
4.	<i>Bhav Prakash</i>	<i>Siravedha, Pralepa, Abhyanga</i>	Chikitsa Prakarana Madhyam Khanda Kshudraroga Adhikar (61/39)
5.	<i>Yoga Ratnakara</i>	<i>Siravedha, Pralepa, Abhyanga</i>	Uttar Sthan Kshudraroga Chikitsa/ (1-12),14
6.	<i>Chakradatta</i>	<i>Siravedha, Pralepa, Abhyanga</i>	Kshudraroga Chikitsa Prakarana 55/40,43,44,48,49
7.	<i>Bhasajya Ratnawali</i>	<i>Siravedha, Pralepa, Lepa, Abhyanga</i>	Kshudraroga Chikitsa adhyaya, 60/37,(40-43), (46-48),(90-92), (107-124),(155-157)

DISCUSSION

It is worth highlighting that melasma is one of the unaesthetic dermatoses that lead to great demand for specialized dermatological care, even though they are just a common and benign pigmentation abnormality. This might be explained by its cosmetically compromising nature and the associated emotional and psychological effects in individuals affected by this problem, who often, because of dissatisfaction with their appearance, eventually reduce their social lives, even with cases of suicide reported. Although this condition often has only aesthetical implications,

such concern can be very important and impacting on the social, family and professional lives those affected, causing psychological effects that cannot be neglected.¹⁶

Vyanga is one of the most common skin problems in all over the world treated by dermatologists. Several Ayurvedic texts including Sushruta Samhita, Astanga Hridaya, Bhavaprakash, Chakradatta, Yoga-ratnakar, Charaka Samhita, Sharangadhara Samhita and modern literatures have been reviewed concerning with melasma. After review, it has been observed that both sciences have shown great similarity in the

understanding of melasma in terms of causative factors, onset of symptoms, age factors, pathophysiology and method of treatment of melasma.

Vyanga has been elaborated in Ayurveda as a Kshudra roga (minor ailment), as it is not a serious or life threatening disorder but it seriously impact quality of life of person. Vyanga is used in Ayurveda to define melasma. In Samprapti (Pathophysiological) process of vyanga, factors stated by acharya's has given special emphasis towards psychological factors like *Krodha* (anger), *Shoka* (grief) and *Shrama* (exhaustion), which are commonly found in most of the patients. In Samprapti of *Vyanga*, acharya Charaka has mentioned that the aggravation of *Pitta* along with *Rakta* is the chief culprit for initiation of the pathology. *Vyanga* is a *Rakta Pradoshaja Vyadhi*, hence the very first Dosha affected is *Rakta Dhatu*. *Dosha Prakopaka Hetus* like *Krodha*, *Shoka* and *Shrama* are mainly Tama (*Manasika Dosha*), *Pitta* and *Vata* (*Shareerika Dosha*) dominance, vitiates the *Agni (Pitta Dosha)* which resides in *Rasa* and initiates the pathogenesis of *Vyanga*. Here *Ranjaka Pitta* is responsible for the conversion of *Rasa Dhatu* into *Rakta Dhatu* which results in the formation of normal skin color. However due to etiological factors like *Krodha* and *Shoka* mainly *Pitta* vitiation takes place which in turn affects the *Jatharagni* and normal functioning of *Ranjaka Pitta* i.e., *Varnotpatti*. Based on *Ashraya-Ashrayee Bhavas*, the derangement of *Pitta Dosha* leads to abnormality of *Rakta Dhatu*. *Shrama* and *Shoka* will lead to *Udana Vata* vitiation. Thus vitiated *Ranjaka Pitta*, *Rakta Dhatu* as well as *Udana Vata* travel in body through *Dhamanis* and get *Sthana Samshraya* in *Mukhagata Twacha* and causes vitiation of *Bhrajaka Pitta* giving rise to discoloration of the skin.

As far as the treatment of vyanga is concerned, both the sciences advise the use of topical as well as oral medications. Modern science describes the treatment as per the severity of vyanga, similarly Ayurveda has also advised *Raktamokshana* for severe cases of vyanga. Ayurveda believes in expelling the root causes of vyanga by giving *Sodhana Chikitsa*. Modern science also aims at eliminating one of the main factors of vyanga by advising oral as well as local antibiotics. Effective treatment modalities are available in both the sciences, but sometimes adverse effects of modern medicines limit their use.

In the present review, an effort is made to compile scattered references of vyanga under one roof and also a comparison is made between Ayurveda and modern medicines with regards to understanding of vyanga. Looking at in-depth knowledge, Ayurveda can certainly contribute in the development of newer effective and safe remedies for the treatment of vyanga. Therefore as far as the treatment of *Vyanga* is concerned it is most important for the drugs to have *Kapha-Pitta Shamaka*, *Rakta Prasadaka* and *Varnya* property.

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CORRESPONDING AUTHOR

Dr. Hrishu Bandana Konwar

PhD Scholar. Govt. Ayurvedic College,
Guwahati. Under SSUHS,
Guwahati, Assam, India

Email:getdoc_hrishibandana@rediffmail.com

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