REVIEW ON VYANGA VIS A VIS MELASMA

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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). Vyanga is a disease which belongs to Swalpa variety of Kudra 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 outcome 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.14

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, supralabial 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 vikta, vigata, vikala) vikta 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 Kudra 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 bhattaraya. A detailed and separate description of Vya ga is described in the chapter of ‘K udra Roga’ in Suśruta Saṁhitā which includes Nidāna, lakṣaṇa, samprāpti and sāpekṣa nidāna. Both Caraka Saṁhitā and Piṭhān Saṁhitā considers Vya ga as a ‘Raktaja Roga’ & a common samprāpti for Tilakālaka, Pipu, Vya ga and Neelikā in Triśothīya Adhyāya has been given. Individuals who belong to Pitta Prakṛti are said to be prone to Vya ga. More elaborate description is available in Asta Saṁhitā Uttaratantra, in the ‘K udra Roga Prakara a’ where in the Dośānusāra
Lakṣaṇas of the disease are explained in detail. In Madhyakāla, Madhava Nidāna, Śarangadhara Sa hitā, Bhavaprākāśa, Cakradatta, Yogaratnākar have described about the disease Vyaṅga in the context of Kudra 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 nidan 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; red or coppery coloured in surrounding and possesses burning and pricking because of 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, yuktyapashraya 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 Samsaman chikitsa Vagbhatta in Astanga Samgraha Uttara sthana in ‘Khudraroga pratisedhiya 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.
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**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 tropical 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 vyaga. 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, RaktaPrasadaka and Varnya property.

REFERENCES


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