

Original Review Article

Critical review of Psychodermatology in *Ayurveda* and contemporary science

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Abstract

Psychodermatology which is a new branch of science, addresses the relation between skin and mind. It has been known since antiquity in *Ayurveda* that relation exists between skin and the mind. It is estimated that more than one-third of patients seeking treatment for skin disease have underlying psychiatric problems. This review is mainly focus on how connection exists between mind and skin. Patient with skin disorders always experience physical, mental and social embarrassment in the society. This embarrassment leads to mental stress which further aggravates the pre-existing disease. More than a cosmetic nuisance, skin disease causes anxiety, depression, and other psychological problem which affects the patient's life in many ways considerably. Thus a better understanding of Psychocutaneous disorders helps in an effective management of and improving the life of a patient.

Key words

Psychodermatology, Psychocutaneous, *Ayurveda*, *Kushtha*.

Introduction

Ayu is a conjunction of *shareera*, *indriya*, *satva* and *aatma* which signifies the concept of psychosomatism in *Ayurveda* [1]. *Ayurveda* has explained the inter-relation between mind and body through various analogies. Psychological factors have traditionally been associated with the onset, development and persistence of skin disease. *Ayurveda* described several factors like

chinta, *shoka*, *bhaya*, abusing deities and teachers etc. have a negative impact on mind/psyche. This negative impact of mind lead to stress which in turn directly or indirectly plays a major role in the manifestation and aggravation of skin diseases (*Kushtha Roga*). Stress is emphasized as one of the major important factors in the initiation and exacerbation of skin diseases. In *Ayurvedic* texts, skin is described as one of the five *Gyanendriyas*, an organ which is

responsible for touch sensation. Patients with the skin disorder always experience physical, mental and socio-economic embarrassment in the society. This embarrassment leads to mental stress which further causes aggravation of pre-existing disease [2].

Aim and objectives

Critical review of psychodermatology in *Ayurveda* and contemporary science.

- To understand the relation between Twacha, Mana and Twacha – Rog.
- To understand the relation between Skin, Mind and Skin Disorders.

Materials and methods

Skin Disorders like *Switra* or *Kilaas* are said to be due to disrespecting demi-gods, *guru* or due to action of previous birth etc.

In Modern Science Psoriasis, Vitiligo, Lichen Planus, Acne, Actopic dermatitis etc are said to be stress induced.

Acharya Charak has described the skin (twacha) as '*chetan samvaayi*' i.e. the skin has an eternal relationship with *Manas* (psyche/mind) [3]. Therefore, any mental stress due to any cause has a direct impact on the skin. Thus, we can say that stress and skin has an eternal relation with each other.

Skin and mind grossly differ with each other but share some similar characteristics. *Vata* being the controller and stimulator of mind has an inseparable relation with the skin, which is responsible for tactile sensation [4, 5]. *Hridaya* (Heart) and the entire body are considered to be the abode of *manas* (mind) [6, 7]. Among the five varieties of *Vata*, *Vyana vata* has a greater influence on mind due to its existence on both *twak* and *hridaya* [8, 9]. The function of *pitta dosha* and *kapha dosha* depends on *vata dosha* [10]. Hence they are also involved in the functions of skin. Skin covers the entire body, likewise *manovaha strotas* resides all over the body [11]. The tactile cognition is perceived

through an association of skin and mind leading to all pleasurable and painful sensations [12]. Skin is closely connected with the nervous system and is very sensitive to emotions. It turns pale and clammy during fear, it blushes when embarrassed and it glows due to happiness. Anger, depression and elation cause subtle and measurable changes to skin [13].

Pathological relation between skin and mind

The etiological factors of skin disease (*kushta*) are divided as dietary, lifestyle and psychological factors. Various sinful acts like disrespecting or abusing teachers, dieties, etc. These antiritualistic behaviours impose greater psychogenic stress. Fear, excessive mental and physical exhaustion are also important contributing factors of *kushta*. *Rasavaha strotas*, *Ambuvaha strotas* and *Sweda vaha strotas* are the three major channels involved in *kushta*. Following psychological factors mentioned in the **Table - 1** are responsible for vitiation of these channels.

Table - 1: Psychological causes of *Strodusti* (Vitiation of channels).

Psychological causes	Vitiated Channels
Excessive thinking	<i>Rasavaha strotodusti</i> [14]
Fear	<i>Ambuvaha strotodusti</i> [15]
Anger, Sadness and fear	<i>Swedavaha strodusti</i> [16]

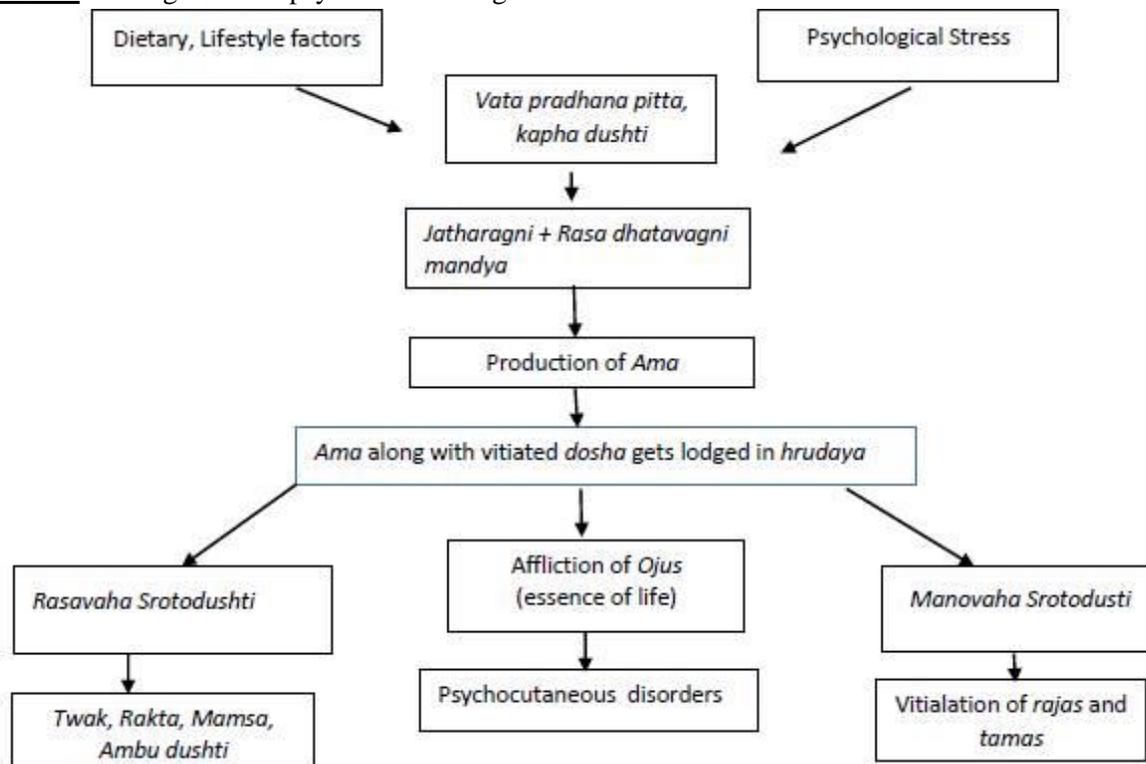
Skin and mind derive their nutrients from *rasa dhatu*. So consumption of food and drinks which are mutually contradictory, unclean and unwholesome have a greater impact on either entities [17, 18]. *Bhagavatgeeta* explains about the close relationship between food and psyche. Intake of sour, hot, spicy and fried food leads to vitiated *raja guna*, which in turn disturb the mind. This kind of food is also responsible for *rakta dusti*, which is a key factor in developing *kushta* [19].

Pathological Relation between Skin, Agni and Mind

Psychological stress is associated with impairment of *jatharagni* further producing

dhatvagnimandya. This hampers the process of digestion and metabolism starting from *rasa dhatu* producing *ama* [20]. The nourishment of skin is derived through *rasadi dhatu*. Hence vitiation of these contributes to the manifestation of various skin disease. Pathogenesis of psychodermatological disorders was as per **Figure – 1**.

Figure – 1: Pathogenesis of psychodermatological disorders.



Sushruta has mentioned *pitta dhara kala* as a seat of digestion, further it is stated that *pitta dhara kala* has a strong co-relation with *majja dhara kala*. As per *Ayurveda*, brain is made of *majja dhatu*, which is responsible for psychological functioning of the body. So any disturbance in *agni* or *pitta dhara kala* leads to *rasa dhatavagi mandya* along with disturbance in *majja dhara kala*, which leads to many skin diseases.

Skin diseases and psychological stress

Psychodermatology addresses the interaction between mind and skin. Psychiatry is more focused on the “internal” non visible disease, and dermatology is focussed on the external visible disease. Connecting the two branch is a complex interplay between neuroendocrine and immune systems that has been described as the NICS, or the neuro-immuno-cutaneous system.

The interaction between the nervous system, skin, and immunity has been explained by release of mediators from NICS. Disfiguring dermatological conditions often run a chronic course, resulting in profound psychological morbidity, leading to secondary psychiatric disorders.

It is well acknowledged that psychological stress plays an important role in the pathophysiology of numerous skin disorders. However, the strength of association between stress response and the onset, recurrence or exacerbation of various skin diseases varies. The skin disease best known as the stress associated and by far the most intensively studied for this association is psoriasis, with 40-60% of cases triggered by stress. Stress activates various neural pathways. The main stress response systems are the

sympathetic-adrenal medullary system and the hypothalamic-pituitary-adrenal (HPA) axis.

Hypothalamic-Pituitary-Adrenal (HPA) Axis

Corticotropin hormone (CRH) is a central component of the HPA axis and regulates the expression of pro-opiomelanocortin (POMC) and POMC-derived peptides [adrenocorticotropin (ACTH), melanocyte-stimulating hormone (MSH) and endorphin] from the anterior pituitary gland. During acute stress response, the paraventricular nucleus of the hypothalamus releases CRH. CRH then acts on the pituitary gland to induce a release of adrenocorticotropin hormone (ACTH), which in turn causes the adrenal cortex to release cortisol. CRH, the main co-ordinator of the stress response can be secreted by various skin cells, including epidermal and hair follicle keratinocytes, sebocytes and mast cells. CRH has a pleotropic effect in the skin depending on the cell type and experimental growth conditions. CRH-R1 activation, which modulates proliferation, differentiation, apoptosis and pro-or anti-inflammatory activities of skin cells.

Sympathetic –adrenal medullary system: Its activation causes central sympathetic discharge and peripheral sympathetic outflow, resulting in secretion of NE (Norepinephrine) from nerve fibre terminals and adrenaline (or epinephrine), which is secreted from the adrenal medulla. During the stress response, both molecules are invariably present in the circulation. The main mechanism involved in response to stress in the skin is sympathetically mediated active vasodilatation. The best evidence existing now for this vasodilatation points to sympathetically release cholinergic co-transmitter and nitric oxide [2]. Schematic presentation of the various factors originating from stress and leading to various types of Skin diseases through the activation of the HPA axis and PNS which may affect the skin directly or through modulation of the immune system was as per **Figure - 2**.

Stress Induced Insomnia and Skin disorder

Numerous studies have established that stress-induced insomnia can dramatically impair skin function and precipitate numerous skin disorders. Researchers have found that animals subjected to prolonged sleep deprivation develops ulcerous lesions on their legs and suffer increased risk of bacterial invasion through the skin owing to a breakdown in skin membrane integrity.

Factors like Anger, Fear, etc., leads to increased *Pitta* and *Vata*, which in turn leads to Insomnia, prolonged insomnia leads to dryness of skin, which in turn leads to many skin disorders.

Ayurvedic Management

A combined approach including pharmacotherapy and psychotherapies are administered in the management of psychocutaneous disorders. Modern science considers skin and mind as two separate entities. Hence symptomatic treatments are practiced. Considering psychological and skin manifestations. Some of the modern medicines used in treating chronic skin diseases can manifest psychological symptoms and some psychotropic medicines also show their adverse drug reaction on skin. Ayurveda being a holistic science establishes the relation between skin and mind. Various treatment approaches in *Ayurveda* focus on eliminating disease from its root and providing a sense of well-being. Management of psychocutaneous disorders in *Ayurveda* aims at a multidimensional approach through *daivavyapashraya*, *yuktivyapashraya* and *sattwavajaya* [21].

Gayadasa, the commentator of *sushruta samhita* has been quoted that the two types of treatment modalities viz *yuktivyapashraya* and *daivavapryashraya* has been mentioned in *Ayurveda* for the management of *kushtha roga*, as *kushtha* is said to be originated through *paapkarma* and derangement of doshas [22].

Daivavapryashraya chikitsa

Daivavapryashraya chikitsa includes chanting *mantras*, *mani dhaaran*, *mangal karma*, *Bali*,

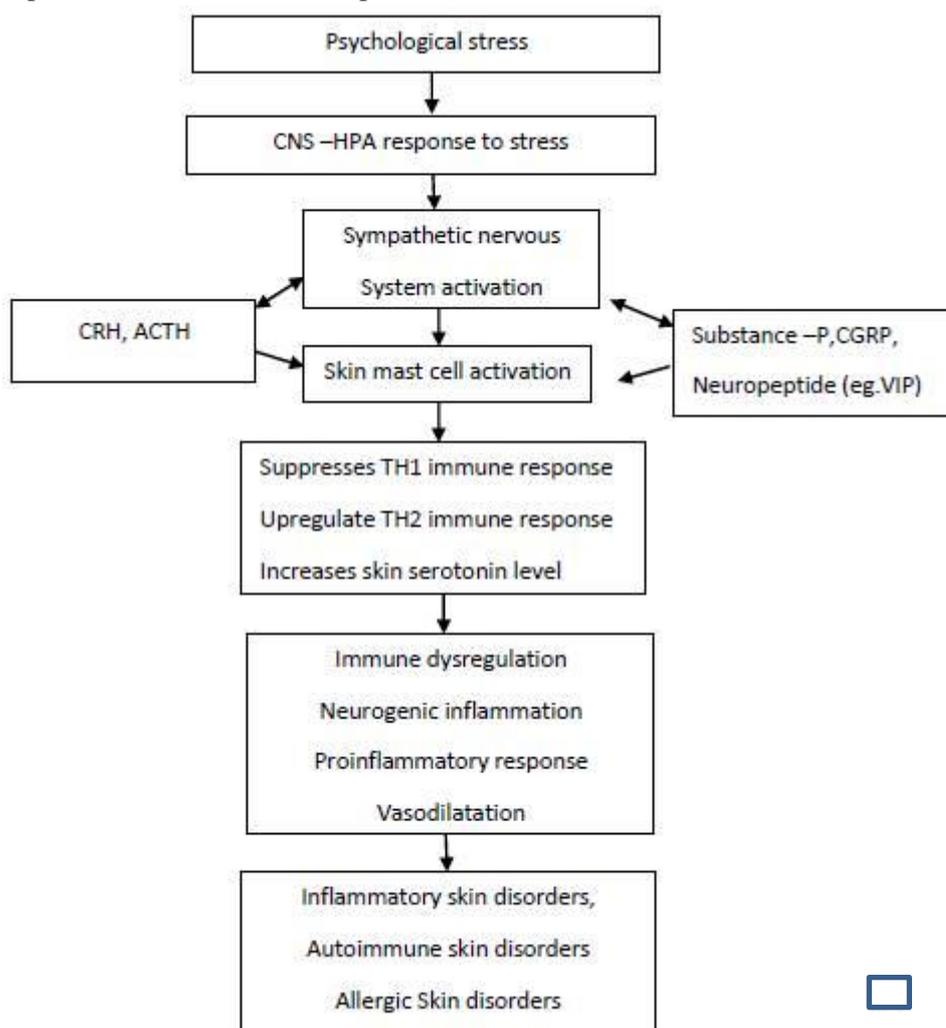
Homa, prayashchita Upavasa, Swastyayana etc. [23].

Vagbhata, the author of *Ashtang Hridaya* cited that use of *Vrat, Seva, Tyag, Daan* workshop for

deities, friendly behaviour with everyone etc. roots out the skin diseases (*Kushtha roga*), as it is originated due to vitiated *Doshas* and *paapkarma* [24].

Figure – 2: Schematic presentation of the various factors originating from stress and leading to various types of Skin diseases through the activation of the HPA axis and PNS which may affect the skin directly or through modulation of the immune system.

VIP = Vasoactive intestinal polypeptide, CGRP = Calcitonin gene related peptide, CRH- Corticotropin. ACTH - Adrenocortitropin Hormone.



All these ritual activities directly or indirectly exert a positive impact on the mind and therefore, cause reduction in stress, reduction and abolition of negative thoughts like suicidal ideations etc.

Sattvavajaya chikitsa

Sattvavajaya in principles is full- fledged psychotherapy, which has been described in *Ayurvedic* literature. Charak defines it as “*Sattvavajaya punah Ahitebhyo Arthebhyo Manognigrah*”. Means a method of restraining or withdrawal of the mind from unwholesome objects (*Arthas*) [25]. Thus, the term *sattvavajaya* implies to that modalities which is

therapeutic for mental or emotional stresses and disturbances. This is secured best by restraining the mind from unwholesome objects, directing it towards wholesome objects and the cultivation of *Gyana*, *Vighaya*, *Dhairya*, *Smriti* and *Samadhi*. All the measures help in developing control over the *Manas* or mind, which is always unstable [26].

Also some drugs like *Mandukparni* are said to be effective in both skin diseases and brain functioning. *Mandukparni* is said to have *medhya prabhav*. Thus we can say that there is relation between Skin and Mind.

Discussion

In present era stress and low immunity plays important role in manifestation of different diseases, including skin diseases (*kushtha roga*). *Kushtha roga* is a chronic disorder. *Kushtha roga* is one among the *deerghakaaleen vyadhees* and also included in *ashtamahagada* as the disease *kushtha* is very hard to treat. Even though the skin diseases are not fatal, they create comparatively greater psychological stress. This psychological stress leads to manifestation of mental and emotional disorders as well as somatoform disorders and further aggravate the pre-existing disease. *Psychodermatology* covers all aspects of how the mind and body interact in relation to the onset, formation and progression of skin disease. It has been estimated that the effective management of at least one-third of patients visiting dermatologist depends to some extent upon the recognition of emotional factors. Most of such type of chronic disease raises two principal problems, preservation of the quality of life and therapeutic compliance.

Conclusion

Psychodermatology is a relatively new discipline in dermatology which deals with the diseases affecting mind and skin. Psychological factors responsible for skin diseases and vice-versa is demonstrated in the classics of *ayurveda*. Psychological stress is one of the major factors which hampers the immune system there-by

making a person susceptible to various skin disorders. The Management of psychodermatological disorders in *ayurveda* involves various therapies and life style modifications that preserve the mental balance and healthy skin.

References

1. Yadavji Trikamji (editor). Charaka Samhita of Charaka, Sutrasthana, Chapter 1, verse no. 42, Reprint edition; varanasi; chaukambha Sanskrit Series; 2011: 8.
2. Satyapal Singh, J.S. Tripathi, N.P. Rai. An Overview of Ayurvedic and contemporary approaches to psychodermatology. Journal of Pharmacology and Phytomedicine research, 2014; 3(4): 286.
3. Agnivesha, Charak, Dridhbala. Charak samhita. Varanasi: Chaukhambha bharati academy; 2005.
4. Yadavji Trikamji (editor). Charaka Samhita of Charaka, Sutra sthana, Chapter 12, verse no. 8, Reprint edition; varanasi; chaukambha Sanskrit Series; 2011: 79.
5. Yadavji Trikamji (editor). Charaka Samhita of Charaka, Sutra sthana, Chapter 11, verse no. 38, Reprint edition; varanasi; chaukambha Sanskrit Series; 2011: 299.
6. Yadavji Trikamji (editor). Charaka Samhitha of Charaka, Shareera sthana, Chapter 2, verse no. 37, Reprint edition; varanasi; chaukambha Sanskrit Series; 2011: 30.
7. Yadavji Trikamji (editor). Charaka Samhitha of Charaka, Vimana sthana, Chapter 5, verse no.7, Reprint edition; varanasi; chaukambha Sanskrit Series; 2011: 250.
8. Hari Sadashiva, Shastri Paradakara (editor). Ashtanga Hridaya of Vagbhata, Sutrasthana, Chapter 12, Verse no. 6-7, Reprint edition; Varanasi; Chaukambha orientalia; 2011: 193.

9. Yadavji Trikamji (editor). Charaka Samhitha of Charaka, Chikitsa Sthana, Chapter 28, verse no. 7, Reprint edition; varanasi; chaukambha Sanskrit Series; 2011: 303.
10. Pandit Parashurama Shastri - Vidyasagar (editors). Sharangadhara samhita of Sharangadhara, Purvakhanda, Chapter 5, Verse no.25, Fifth edition; Varanasi; Chaukambha orientalia; 2002: 50.
11. Yadavji Trikamji (editor). Charaka Samhitha of Charaka, Vimana sthana, Chapter 5, verse no. 7, Reprint edition; varanasi; chaukambha Sanskrit Series; 2011: 250.
12. Yadavji Trikamji (editor). Charaka Samhitha of Charaka, Shareera sthana, Chapter 1, verse no.133, Reprint edition; varanasi; chaukambha Sanskrit Series; 2011: 299.
13. Ted A Grossbart, Carl Sherman. Skin deep - A mind/body program for healthy skin. Digital edition; p. 7. Health press NA Inc; Albuerque; New Mexico. Available from: <http://www.grossbart.com>
14. Yadavji Trikamji (editor). Charaka Samhitha of Charaka, Vimana sthana, Chapter 5, verse no.13, Reprint edition; varanasi; chaukambha Sanskrit Series; 2011; 251.
15. Yadavji Trikamji (editor). Charaka Samhitha of Charaka, Vimana sthana, Chapter 5, verse no.11, Reprint edition; varanasi; chaukambha Sanskrit Series; 2011; 251.
16. Yadavji Trikamji (editor). Charaka Samhitha of Charaka, Vimana sthana, Chapter 5, verse no.22, Reprint edition; varanasi; chaukamba prakashan; 2011; 252.
17. Yadavji Trikamji(editor). Charaka Samhitha of Charaka, Chikitsa sthana, Chapter 9, verse no. 4, Reprint edition; varanasi; chaukambha Sanskrit Series; 2011: 250.
18. Yadavji Trikamji (editor). Sushruta Samhitha of Sushruta, Nidana sthana, Chapter 5, verse no. 3, Reprint edition; varanasi; chaukambha Sanskrit Series; 2013: 282.
19. A.C Bhaktivedanta, Swami Prabhupada. Bhagavadgita AS. It Is, Complete edition with original sanskrit text, Chapter 17, verse no. 8, 8th edition; Hare Krishna Land, Juhu, Mumbai; The Bhaktivedanta Book Trust; 2003: 759.
20. Yadavji Trikamji (editor). Sushruta samhitha of sushruta, Sutra sthana, Chapter 46, verse no. 400, Reprint edition; varanasi; chaukamba prakashan; 2012: 251.
21. Kavyashree K, Savitha HP, Shrilata, Suhas Kumar Shetty. Psychocutaneous Disorders in Ayurveda- An Appraisal. Journal of Ayurveda and Holistic Medicine, 2017; Volume - V.
22. Gayadasa, Sushruta samhitha. Varanasi: Chaukhambha orientalia; 2009.
23. Agnivesha, Charaka, Dridhabala. Charak samhitha. Varanasi: Chaukhambha bharati academy; 2005.
24. Vagbhat, Ashtanga hridaya. Delhi: Chaukhambha Sanskrit pratisthan; 2003.
25. Agnivesha, Charaka, Dridhabala. charaka samhitha. Varanasi :Chaukhambha bharati academy; 2005.
26. J.S. Tripathi. Dimension of Sattvavajaya Chikitsa (Ayurvedic Psychotherapy) and Their Clinical Applications. Annals Ayurvedaic Med., 2012; 1(1 & 2): 31-38.