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## Role of Gandhak Rasayan in Kshudra Kushtha - A **Review Article**

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### ABSTRACT

Ayurveda is an ancient medical science, which not only treats the diseases but it also emphasizing for a healthy life. Ayurveda's main aim is to maintaining Dhatusamya of body. The person who follows the rules of Dincharya, Ritucharya and Aahar Vihar able to live healthy life. But in today's lifestyle it is difficult to follows these rules and due to sedentary changes in daily habits of diet, work etc. This continuous exposure to these factors various systemic changes are occurring in our body, these factors mainly vitiates Rakta Dhatu and in Kshudra Kushtha (Minor skin diseases) also the vitiation of Rakta Dhatu. There are two types of Kustha, Maha Kushta and Kshudra Kustha. Mahakustha is of eight types and Kshudra Kustha is of eleven types. According to Ayurveda, Tvacha (skin) is a seat of Sparshanrndriya. It carries the sensation of touch and it also covers the internal part of the body. Tvacha (skin) is 'Panchbhautik' but out of them Vayumahabhuta is prominent one. Gandhak Rasayana is one of the oral medicines described for many skin diseases. Gandhak Rasayana mainly acts on skin, blood and it is Rasayana in action. So, it more or less acts on all Doshas and Dhatus.

Key words: Kshudrakushtha, Twakroga, Gandhak Rasayan, Rakta Dhatu.

#### **INTRODUCTION**

Skin is the largest organ of the body constituting the integumentary system, comprising of skin, hair and nails etc. It constitutes 16% of body weight. Skin has the total surface area varying 1.2 to 2.2 sq.m. It is a combined product of ectoderm as well as of mesoderm. Kushtha (skin disorder or dermatosis) is a

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chronic disease which presents with ugly colors / complexion/ texture and altered tactile perceptions of the skin. Tvacha (skin) is a seat of Sparshanrndriva. It carries the sensation of touch and it also covers the internal part of the body. Tvacha (skin) is 'Panchbhautik' but out of them Vayumahabhuta is prominent one.<sup>[1]</sup>

The word *Kushtha* is derived from *Kushnati Vapuh* meaning that "which alters complexion of body by extracting". Kushtha is a compendium of various skin diseases, divided into two groups i.e., major (Maha Kushtha) and minor (Kshudra Kushtha). Seven types of major and eleven types of minor skin disorders. All the types of *Kushtha* are caused due to vitiation of *Tridosha* with involvement of skin, blood, lymph and muscular tissue. Skin is a sensory organ too, and is seat of Vata Dosha. In case of Kushtha vitiated vata in skin manifests as, horripilations, numbness, and loss of tactile perceptions.<sup>[2]</sup>

Skin is the sub-tissue or Upadhatu of Mamsa Dhatu, texture of skin depends upon muscle texture, so the

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dermal deformities spread upto the *Mamsa Dhatu* or musculature and skin texture causing ugly shape of skin lesions.

#### Etiology of Kshudra Kushtha

विरोधीन्यन्नपानानि द्रवस्निग्धगुरूणि च|

भजतामागतां छदिं वेगांश्वान्यान्प्रतिघ्नताम्।।४।।

व्यायाममतिसन्तापमतिभुक्त्वोपसेविनाम्।

शीतोष्णलङ्घनाहारान् क्रमं मुक्त्वा निषेविणाम्।।७।।

घर्मश्रमभयार्तानां द्र्तं शीताम्ब्सेविनाम्।

अजीर्णाध्यशिनां चैव पञ्चकर्मापचारिणाम्||६||

नवान्नदधिमत्स्यातिलवणाम्लनिषेविणाम्|

माषमूलकपिष्टान्नतिलक्षीरग्डाशिनाम्।।७।।

व्यवायं चाप्यजीर्णेऽन्ने निद्रां च भजतां दिवा|विप्रान् गुरून् धर्षयतां पापं कर्म च कुर्वताम्।।८।।

*Viruddha Annapana*, excessive intake of *Drava*, *Snigdha* and *Guru Dravyas*; restraining natural urges like vomiting etc; exercising or coming in contact of excessive heat after eating excessive quantity of food. Indulging in habits such as, taking *Shita* (cold) quality food etc. followed by *Ushna* (hot) quality or either fasting followed by heavy meals. Having cold water immediately after exposure to scorching sun, exertion and fear, eating uncooked or raw foods or having meals although previously taken meals have not been digested. Indulging in food and other habits which have been restricted during the phase of *Panchakarma*.

Consuming new grains, curds, fish, excessive salty and sour food items. Black grams, radish, food prepared from flour paste, sesame, milk and jaggery products. Indulging in sexual activity even if the food is not well digested (sexual intercourse immediately after taking food), sleeping during day time, insulting peers like *Brahmin / Guru* and other respected personal and doing sinful acts are the etiological and risk factors of *Kushtha*.<sup>[3]</sup>

Pathogenic factors of Kshudra Kushtha

वातादयस्त्रयो दुष्टास्त्वग्रक्तं मांसमम्ब् च|

दूषयन्ति स कुष्ठानां सप्तको द्रव्यसङ्ग्रहः।।९।।

The vitiated three *Doshas Vata, Pitta, Kapha* along with impaired *Tvak* (skin), *Rakta* (blood), *Mamsa* (muscles) and *Ambu* (water) together constitute seven essential entities which play role in pathogenesis of *Kushtha*.<sup>[4]</sup>

#### Premonitory signs and symptoms

स्पर्शाज्ञत्वमतिस्वेदो न वा वैवर्ण्यम्न्नतिः।

कोठानां लोमहर्षश्च कण्डूस्तोदः श्रमः क्लमः||११||

व्रणानामधिकं शूलं शीघ्रोत्पत्तिश्चिरस्थितिः।

दाहः [१] स्प्ताङ्गता चेति कुष्ठलक्षणमग्रजम्||१२||

Decreased touch sensation, excessive sweating or absence of sweating (which may be localized or generalized), change in color (discoloration), papules on skin, horripilation, pruritus, pricking pain, physical exhaustion, mental fatigue, severe pain in ulcerated area, sudden appearance and chronic the ulcers, burning sensation, numbness are the premonitory symptoms of skin disease.<sup>[5]</sup>

#### Types of Kshudra Kushtha

Minor skin diseases are known as *Kshudra Kushta*. *Kshudra Kushta* can be classified into eleven and they are

- 1. *Eka Kushta* Vitiation of *Kapha-Dosha* is the main factor behind *Eka Kushta*. Here the lesions are spread over an extended area of the skin.
- Kitibha The affected skin is very hard and rough in touch. The predominance of Vata and Kapha are the reasons for Kitibha disease. Here one can find blackish-brown discoloration of the skin.
- 3. *Charmakyam* Here the skin looks like the skin of an elephant. Also, the skin would be very rough in touch. An increase in the *Vata* and *Kapha Doshas* causes *Charmakyam*. The infection spreads in a vast area.
- Dadru Mandala Redness and intense itching sensations are the main symptoms of Dadru Mandala. Pitta and Kapha predominance is the main reason for Dadru Mandala Kushta.
- 5. *Vipadika* An increase in *Vata* and *Kapha dosha* leads to *Vipadika*. Cracks in the palm and severe pain are the symptoms of *Vipadika*.

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- 6. *Vicharchika Kapha Dosha* predominance causes *Vicharchika*. Here the symptoms are itching sensations and blackish-brown eruptions.
- Shataru Redness around the skin with multiple lesions is the major symptom of Shataru. Pitta and Kapha predominance leads to Shataru. Severe pain is the main symptom of Shataru.
- Sphota Here one can find white colour skin around the lesion and the skin over the lesion would be thin. *Pitta* and *Kapha Dosha* predominance leads to *Sphota*.
- 9. *Pama* Intense itching of the affected skin is the main symptom of *Pama*. *Pitta* and *Kapha* predominance cause *Pama Kushta*. Here the eruptions look white, yellowish, red, and blackish-brown in colour.
- 10. *Charmadala* Here the symptoms are itching, severe pain, boils, redness around the skin, cracks on the skin, etc. An imbalance of *Pitta* and *Kapha* causes *Charmadala*.
- 11. Alasaka Major symptoms of Alasaka are itching, redness around the skin, boils, etc. Vata and Kapha Doshas cause Alasaka.

#### Composition of Gandhak Rasayan<sup>[6]</sup>

Sudha Gandhak (purified Sulphur), Twak (Cinnamomum zeylanicum), Ela (Cardamom), Patra (Cinnamomum tamala), Nagkeshara (Mesua ferrea), Haritaki (Terminalia chebula), Amalaka (Emblica officinalis), Vibhitaki (Terminalia bellerica), Shunthi (Gingerber officinalis), Bhrigaraaja (Eclipta alba), Sita Mishri.

Dose - 4 to 8 Rati Morning and Evening with water.

#### Mechanism of action of Gandhak Rasayan

It mainly acts on skin, blood and it is *Rasayana* in action. So, it more or less acts on all *Doshas* and *Dhatus*. *Gandhak* is *Ushna Veeryatmaka* and *Katu Rasa Vipaki* so acts as best *Kaphghna* and *Kledaghna*. *Gandhak Rasayan* helps to destroy the *Samprapti* (pathogenesis) of *Kshudra Kushtha* due to its *Ushnaveerya* and *Katukashay Rasa*.

#### Uses of Gandhak Rasayan

It is used in *Kustha*, Blood related skin disorders, *Dhaatukshay, Prameh, Mandaagni* (poor digestion) and *Udarshool* (pain abdomen) etc.<sup>[7]</sup>

Gandhak Rasayana Vati (tablet) exhibited good clinical improvement in term of relieving individual symptoms as well as reducing severity of disease. Daha, Kandu, Ruja and Sparshaasahatva were significantly reduced. Also, significant relief in Tvak-Vaivarnyata was observed. Thus, Gandhak Rasayan is very effective in Shushka Vicharchika.<sup>[8]</sup>

*Gandhak Rasayan* appears to affect fibroblast activation and modulate the expression of proteins involved in tissue remodeling. Conditioned media from both the fibroblast cell lines facilitated gap closure in A 549 cell layer.<sup>[9]</sup>

Gandhak Rasayan is polyherbal drug which is Rakta Shodhak (blood purifier), Kandughana and Rasayan mainly indicated in Kushtha Rog. It is prepared by giving 12 Bhawnas to Kwatha of Chaturjata, Triphala, Shunthi, and with Swaras (juice) of Guduchi, Bhringraja, Adraka with pure Gandhak. It has antifungal and antibacterial properties. Thus, it reduces the infection. It reduces features of Raag (redness), Pidika (eruption) with Rakta Shodhak (blood purifier) and Kushthaghana properties.<sup>[10,11]</sup>

*Gandhak Rasayan* along with *Karpoor* mix *Nimba Taila* was effective in the treatment of *Dadru* (Tinea corporis) without any adverse drug reaction.<sup>[12]</sup>

The formulation *Gandhak Rasayana* has multiple pharmaco-therapeutic properties. Among the *Tvakvikara* property of *Gandhak Rasayana* was highlighted in *Basavarajeeyam*. Other than *Tvakvikara* it is indicated in *Valipalita, Jara*, 18 Types of *Kushta*, 20 Types *Prameha, Mutrakruchra, Gandamala, Gudhakeela, Bhagandhara, Rajodosha, Haleemaka* important indication of *Gandhak Rasayan* is *Rasayan*.<sup>[13]</sup>

By reviewing Yog Ratnakar and different articles it is found that Gandhak Rasayan can be used in various Tvachavikar with excellent results. Other study was done for screening of antibacterial and antifungal activity of Gandhak Rasayan. Its invitro antifungal and antibacterial activity was studied by cup plate method. It was found that Gandhak Rasayan solution in

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different concentrations showed a significant zone of inhibition against three strains of bacteria and four strains of fungi.<sup>[14]</sup>

According to Brihat Yoga Tarangini explained about Gandhak Rasayana Aja Ksheera, Ikshu Danda Rasa, Guduchi, Madhu. Goksheera, Varahikandha, Yastimadhu, Kustha, Lavanga, Tulasi, Pippali, Pippalimula, Nagakesara, Triphala, Padmakabeeja along with Bhavana Dravya Bringaraja Swarasa with Sarkara and Madhu indicated with Valipalita, Jara, 18 Types of Kushta, 20 Types Prameha, Mutrakruchra, Gandamala, Gudhakeela, Bhagandhara, Rajodosha, Haleemaka.<sup>[15]</sup>

#### DISCUSSION

The use of herbal medicine in wound care has been very encouraging and several researchers around the globe have started to publish their results. Gandhaka Rasayana is one such preparation which finds use in wound repair. Sulfur is the major component of Gandhaka Rasayana and is known to be insoluble in the inert organic solvents which are employed as extractants in laboratories. Serum albumin is known to act as a carrier of many insoluble non-polar components. Complexation of albumin with sulfur has been reported by Jarabak and Westley.<sup>[16]</sup> Gandhak Rasayana Vati seems to be an effective in treatment of Shushka Vicharchika. It is Kaphapradhan Vyadhi, Raktadushti and Agnimandya is also observed. Gandhk Rasayana Vati with Anupana enters to all Sukshma Strotasas and acts on Dosha, Dhatu and Mala. Different Bhavanadravyas in Gandhak Rasayan acts as bactericidal and thus causes blood purification. From this Bhavanadravyas Guduchi, Bhringaraj, Dalchini, Tamalpatra, Nagkeshar, Haritaki, Sunthi, Bibhitak has properties of Katukashay Rasa and Ushnavirya. Thus, it does Dipana, Pachana and acts as Kaphaghna Kledaghna.

In this way, Gandhak Rasayana Vati acts as Agnideepak, Pachak, Kaphaghna, Kledaghna, Raktaprasadak, Krimighna, Kushthaghna and thus helps to cure disease. According to Brihat Yoga Tarangini explained about Gandhak Rasayana Aja Ksheera, Ikshu Danda Rasa, Guduchi, Madhu, Goksheera, Varahikandha, Yastimadhu, Kustha, Lavanga, Tulasi, Pippali, Pippalimula, Nagakesara, Triphala, Padmakabeeja along with Bhavana Dravya Bringaraja Swarasa with Sarkara and Madhu indicated with Valipalita, Jara, 18 Types of Kushta, 20 Types Prameha, Mutrakruchra, Gandamala, Gudhakeela, Bhagandhara, Rajodosha, Haleemaka. It acts on blood and skin it detoxify the blood. Burning condition in chronic syphilis and gonorrhoea. Small boils on body with itching followed by burning sensation. Chronic dry eczema. In urticarial or hives and angioedema. In Scabies rashes, reduces acne and stops its secondary infection. In such cases where antibacterial and antifungal activity is needed. Gandhak Rasayan is polyherbal drug which is Rakta Shodhak (blood purifier), Kandughana and Rasayan mainly indicated in Kushtha Rog. It has antifungal and antibacterial properties. Thus, it reduces the infection. It reduces features of Raag, Pidika with Rakta Shodhak and Kushthaghana properties

#### **CONCLUSION**

The results indicate the possible mechanism of *Gandhaka Rasayana* by fibroblast activation and by modulation of the proteins involved in tissue remodeling. *Gandhak Rasayana Vati* exhibited good clinical improvement in term of relieving individual symptoms as well as reducing severity of disease. *Daha, Kandu, Ruja* and *Sparshaasahatva* were significantly reduced. Also, significant relief in *Tvak-Vaivarnyata* was observed. Thus, *Gandhak Rasayana* is very effective in *Shushka Vicharchika*.

The formulation *Gandhak Rasayana* has multiple pharmaco-therapeutic properties. Among the *Tvakvikara* property of *Gandhak Rasayana* was highlighted in *Basavarajeeyam*. *Gandhak Rasayana* can be used in many diseases and due to its different therapeutic actions, it is an important formulation mentioned in classics.

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