

PHARMACODYNAMIC PERSPECTIVE OF DRUGS USED IN SKIN AILMENTS: AN  
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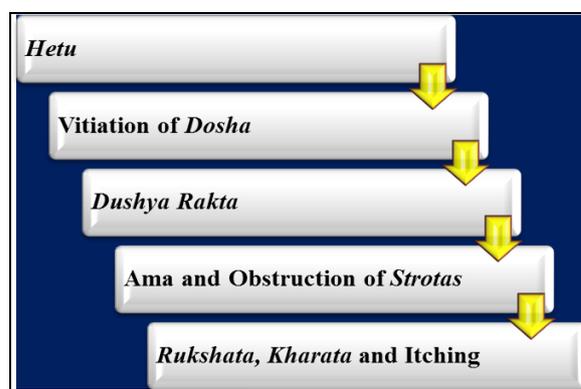
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**ABSTRACT**

Ayurveda is oldest medical system which provides therapeutic options for many health ailments including skin diseases. These diseases are classified under the heading of Kshudra Roga in which Visarpa, Visphota and Sheetapitta are common skin ailments. Drugs possessing Rakta Shodana, Vishagna and Krimighna properties can be used for treating such diseases. The skin disorders referred as Twak Vikaras in ancient Ayurveda which mainly arises due to the several factors including environmental, genetic, dietary and daily routine, etc. Drugs with Tikta and Katu Rasas exert Kandughna, Lekhana, Shodhana and Kusthprashamana properties, thus relieves symptom of many skin diseases. The drugs such as Khadira, Nimba, Haritaki, Vibhitaki, Guduchi, Amalaki, Karanja, Chakramarda and Vasa, etc. are considered useful in skin diseases due to their antimicrobial, antioxidant, wound-healing and anti-inflammatory properties. This Ayurvedic review expresses descriptions of drugs used in skin ailments with special emphasis to their pharmacodynamic roles in skin problems.

**KEYWORDS:** Ayurveda, Skin, Twak Vikaras, Pharmacodynamic, Kustha.**INTRODUCTION**

The skin is one of the important organs of human body which is very vulnerable to many disorders due to the continuous exposure to the external environment. Factors such as poor sanitation, pollution, poverty, genetic predisposition, allergic susceptibility and drug abuse, etc. may become causes of skin problems. The major skin diseases are Udumbara, Kapala, Mandala, Rsyajihva, Siddhma, Kakanaka, Pundarika, Charma Kushta, Vipadika, Alasaka, Kitiba, Dadru, Pama, Sataru, Vicharchika, Sphota and Charmadala, etc. The pathogenesis of disease initiated due to the vitiation of Dosha and disturbance in Rakta Dhatu as mentioned in Figure 1. Vitiated Vata causes Rukshata and Kharata, Pitta imbalances may leads fluidity and itching, Kapha is the root cause of such types of disease which creates obstruction in Strotas, leading to edema and other symptoms.<sup>[1-4]</sup>

**Figure 1: Pathogenesis of Twak Vikara.**

Ayurveda provides comprehensive approaches for managing various skin diseases. The therapeutic regimen of Ayurveda exhibits *Kusthaghna*, *Krimighna*, *Kandughna*, *Varnya* and *Lekhana* properties, therefore cures symptoms of skin problems. According to modern science drug possessing antifungal, antibacterial, anti-inflammatory, hepato-protective, antihistaminic and antiviral effects can be used for treating skin related disorders.<sup>[4-6]</sup>

**Ayurvedic Drugs for Twak Vikara<sup>[5-8]</sup>**

- **Kustha** possesses *Katu* and *Tikta Rasas* along with *Laghu*, *Tikshna* and *Ruksha Gunas*. It alleviates *Kapha* and *Vata Doshas* thus acts as a *Kusthaghna*, *Krimighna*, *Swedajanana* and *Varnya* agent.
- **Khadira** possesses *Tikta & Kashaya rasas*, *Laghu & Ruksha gunas* and *Katu vipaka*, by virtue of these properties Ayurveda drug reduces *Kapha* and *Pitta doshas*. *Shothahara* and *Kandughna* actions relieve symptoms of disease.
- **Guduchi** offers *Katu* and *Kashaya rasas*, *Laghu guna*, *Madhura vipaka* and *Ushna virya*, these attributes imparts *Krimighna*, *Dahaprashmana* and *Kusthaghna* properties which help greatly in skin problems.
- **Nimba** contains *Tikta* and *Kashaya Rasa*, *Laghu gunas*, *Katu vipaka* and *Sheeta virya*, thus imparts *Kustaghna*, *Vranashodhaka* and *Kaphapitta hara* actions.
- **Haritaki** offers *Laghu gunas*, *Madhura vipaka* and *Ushna virya* thus provides *Kusthaghna*, *Krimighna* and antioxidant effects.
- **Amalaki** is known for *Sheeta gunas* and *Madhura vipaka* acts as *Kusthaghna*, *Rasayana*, *Dahaprashmana* and *Krimighna* agent. These properties give therapeutic benefits in various skin disorders.
- **Vibhitaki** offers *Kashaya rasa*, *Laghu gunas*, *Madhura vipaka* and *Ushna virya*; due to these properties it imparts *Tridosahara*, *Krimighna* and *Raktashodhaka* properties.
- **Karanja** has *Tikta* and *Kashaya rasas*, *Laghu gunas*, *Ushna virya* and *Katu vipaka*. It imparts *Kandughna*, *Vranaropaka* and *Kusthaghna* properties.
- **Vasa** exhibit *Tikta* and *Kashaya rasas*, *Laghu gunas*, *Katu vipaka* and *Sheeta virya*. These characteristics provide *Krimighna*, *Kusthaghna* and *Raktashodhaka* actions therefore give therapeutic benefits in skin problems.
- **Chakramarda** offers *Katu rasa*, *Ruksha gunas*, *Katu vipaka* and *Ushna virya*, by virtue of these characteristics it possess *Lekhana*, *Krimighna* and *Kusthaghna* actions in skin ailments.

**Pharmacodynamic Role of Ayurvedic Drugs in Twak Vikara**

The Ayurvedic drugs used in skin disease offers *Tridosahara* properties, thus pacifies *Kapha* and *Pitta doshas* mainly. These drugs possess specific properties as mentioned below which helps in skin problems:

- ✚ *Kushtaghna* (anti-skin disease)
- ✚ *Kandughna* (anti-pruritic)
- ✚ *Krimighna* (antimicrobial)
- ✚ *Rasayana* (rejuvenative)
- ✚ *Vrana Shodhana* (wound cleansing)
- ✚ *Varnya* (complexion-enhancing)

Ayurvedic drugs affect *Twak Dhatu* through their *Raktashodhaka* and *Raktaprasadana* actions. These

drugs act as rejuvenatives and immune modulators thus reduces symptoms of allergy and improve overall skin health. The *Vranaropaka* and *Vranashodhaka* effects help to cleans wound of skin. Ayurvedic drugs relieve symptoms of *Kandu*, *Vaivarnya*, *Rukshata*, *Srava*, *Daha* and *Ruja*, etc.

The topical formulations (*Lepa*) impart *Kandughna*, *Krimighna*, *Varnya* and *Kusthaghna* properties thus reduce infection and inflammation. Ayurvedic drugs penetrate deeper skin tissue and their *Lekhana* property cures skin problems effectively. The *Tridoshaghna* action of natural drug alleviates symptoms of *Vicharchika* and other skin diseases. The *Tikta* and *Kashaya* properties of most of the Ayurvedic drugs help in the reduction of *Ama* which imparts *Srotosuddhi* action.<sup>[7-9]</sup>

**Modern Perspectives**

According to modern research the natural remedies possesses anti-inflammatory, immunomodulatory, antiallergic, cytoprotective, antimicrobial and antioxidant properties. These properties works as follows in skin problems<sup>[10,11]</sup>:

- ✓ The anti-allergic effects counteract the main cause of skin disease
- ✓ Antioxidant actions protect tissues from oxidative damage thus reduces risk of skin lesion.
- ✓ The immunomodulatory action helps to diminish hypersensitivity against allergens.
- ✓ The immune boosting effect increases combating power against the allergic probability.
- ✓ Some compounds increases phagocytic activity and NO synthesis thereby manifests protective effect.
- ✓ The antimicrobial property of some drugs reduces infections of skin disease, offers anti-inflammatory action and suppresses atopic dermatitis formation, thereby gives symptomatic relief in skin diseases.

**CONCLUSION**

*Kushtha* is a *Tridoshaja Vyadhi* of skin mainly dominated by *Kapha dosha*. Therefore *Kaphavatahara* type of drugs possessing *Katu* and *Tikta Rasa* along with *Ushna* potency gives therapeutic relief in disease symptoms. Ayurvedic drugs which offer *Rakta Shodhana* and *Kapha* balancing properties can be recommended for different skin ailments. The anti-inflammatory, antimicrobial, immunomodulatory and antibacterial activities of natural remedies provides relief in disease manifestations. The *Kusthaghna*, *Kandughna*, *Krimighna*, *Raktashodhaka*, *Raktaprasadaka*, *Rasayana*, *Shothahara* and *Srotoshodhana* actions of Ayurvedic drugs provides skin protecting action.

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