



# An Integrated Approach To PUSTULAR PSORIASIS With Special Reference To *Visarpa*: A Case Study

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## Abstract:

Pustular psoriasis is a distinct subset of psoriasis that presents with involvement of the skin in the form of sterile pustules along with systemic manifestations. Though it has been conventionally grouped under the umbrella of psoriasis, recent research has shed light on its pathogenetic mechanisms associated with the IL-36 pathway, which is distinct from conventional psoriasis. Pustular psoriasis in itself is a heterogeneous entity consisting of various subtypes, including generalised, localised, acute, and chronic forms. There is confusion regarding its current classification as entities like deficiency of IL-36R antagonist (DITRA) which are closely related to pustular psoriasis both in their pathogenetic mechanism and its clinical manifestations, are not included under pustular psoriasis. Entities like palmoplantar pustulosis, which presents with similar clinical features but is pathogenetically distinct from other forms of pustular psoriasis, are included under this condition. Management of pustular psoriasis depends upon its severity; while some of the localised variants can be managed with topical therapy alone, the generalised variants like Von Zumbusch disease and impetigo herpetiformis may need intensive care unit admission and tailor-made treatment protocols. The advent of newer biologics and better insight into the pathogenesis of pustular psoriasis has opened the way for newer therapies, including tumour necrosis factor-alpha inhibitors, interleukin-1 inhibitors, interleukin-17 inhibitors, and granulocyte monocyte apheresis.

Skin is the outermost covering of the body serving as a barrier between the external and internal environment. It is the largest organ of the body which acts as a first line of defense in providing resistance to the body. The aggravation of various *Dhatus* and *Doshas* result in skin diseases. More than one-fifty skin related diseases are mentioned in various Ayurvedic texts. They are categorized as *Visarpa*, *Kustha*, *Shotha*, *Upadansha* etc. *Visarpa* is a very common disease mentioned in Ayurvedic texts which

spreads in body in various directions. It manifests as *Daha*, *Jwara*, *Anunnatashopha* and *Vedana*. Ayurveda consider *Raktmokshana* (blood sucking) and *Pradeha* (local application of drugs) as the best suitable treatment modalities for *Visarpa*.

**Keywords:** *Visarpa*, *Kushtha*, Pustular Psoriasis, Psoriasis.

### **Introduction:**

Psoriasis is a systemic immune-mediated disorder that affects an estimated 2–4% of the Western population. Skin manifestations of psoriasis include five forms or phenotypes: plaque psoriasis or psoriasis vulgaris, inverse, pustular, guttate, and erythrodermic psoriasis. Pustular psoriasis, which often occurs with concurrent plaque psoriasis, is a rare entity with sterile pustules that can be localized or generalized. Classically recognized subtypes of pustular psoriasis include generalized pustular psoriasis (GPP), palmoplantar pustular psoriasis (PPP), and acrodermatitis continua of Hallopeau (ACH).

According to a study conducted in India, higher incidence of *Visarpa* observed in younger age group (21–40 years of age). Recent studies have revealed that the incidence of skin problem and skin diseases caused by virus are increasing. It is a painful disease which immediately catches the eyes of the doctor with its symptoms. It is characterized by the localized painful spread of skin rashes and blisters. Ayurveda classics mention that *Visarpa* spreads like a snake and thus it is considered as *Pradhan Vyadhi*. Many skin diseases are mentioned in Ayurveda classics on the basis of their origin. Most of the skin diseases are caused due to *Vata*, *Pitta* and *Kapha Dosha* aggravation.

**Table 1:** Classification of pustular psoriasis

#### **Generalized pustular psoriasis**

Based on morphology and natural history

1. Acute generalized pustular psoriasis

2. Subacute annular and circinate pustular psoriasis

Based on age and precipitants

1. Acute generalized pustular psoriasis of pregnancy (Impetigo herpetiformis)

2. Infantile and juvenile generalized pustular psoriasis

## Localized pustular psoriasis

1. Palmoplantar pustulosis
2. Acrodermatitis continua of Hallopeau

### Classification of *Visarpa* Ayurvedic scholars have classified *Visarpa* into following categories:

- *Vataja Visarpa*
- *Pittaja Visarpa*
- *Kaphaja Visarpa*
- *Agni Visarpa*
- *Kardama Visarpa*
- *Granthi Visarpa*
- *Sannipataja Visarpa*

Charaka also categories *Visarpa* into three based on *Adhishthana*

- 1) *Bahir Visarpa*
- 2) *Antar Visarpa*
- 3) *Ubhayashrita Visarpa*

*Sushruta* - *Sushruta* has classified the disease into two major varieties as *Doshaja Visarpa* and *Kshataja Visarpa*.

*Vagbhata* - *Ashtang Hridaya* classifies *Visarpa* into eight varieties as that of *Sushruta*.

### Etiopathogenesis and *Lakshana* of various types of *Visarpa*

Various etiological factors cause aggravation of all the *Doshas* in the body affecting muscular and vascular tissues. Vitiated *Doshas* result in diminished *Agni* which causes development of *Ama* in the digestive tract. *Ama* spreads and causes vitiation of *Mamsa*, *Rakta* and *Twak*. Then *Dosha-dusya Sammurchhana* takes place either in *Abhyantara* or *Bahya* path resulting into *Visarpa*. This combination of aggravated *Doshas* and *Dushya* results in *Visarpa*.

According to modern medicine, Herpes is caused by *Varicella zoster* Virus which affects the central nervous system, internal organs and predominantly muco-cutaneous surfaces. Virus enters into the body through abraded skin or wound and affects sensory and autonomic nerve endings. It is transported to the nerve cell bodies and then spreads by involving new skin and thus covers more area. After receiving treatment for the primary infection, sometimes the virus goes into the dormant stage in the ganglion. Due to some triggering agents such as trauma, ultraviolet light, change in cell mediated immunity, the virus gets reactivated again.

**Vatika Visarpa:** Is the result of obstruction caused by aggravated *Doshas*. It shows resemblance to the acute skin infections such as Erysipelas. Its clinical features are burning sensation, fever, pain, affected area becomes edematous and red, small blackish or reddish blisters with thin clear reddish and scanty discharge are seen.

**Pitta** dominant *Visarpa* causes various problems such as fever, pain, burning sensation etc. Pustules are formed in the affected part causing intense pain and burning sensation. It can be co-related with the skin diseases such as Erysipelas, Herpes and burns etc.

**Kaphaja Visarpa:** Spreads slowly in the body and it shows resemblance to the Erysipelas. It causes fever, vomiting, chills etc. The affected area becomes edematous, red with pale coloured eruptions covered by thick skin. They can leave deep seated ulcers also if not treated on time.

**Agni Visarpa:** Is a very serious condition resembling septicemia. Affected area gets covered by red coloured blisters. Person suffers from severe burning sensation and becomes restless. It spreads rapidly to the vital organs and it is considered as incurable.

**Kardam Visarpa:** Is caused due to *Pitta* and *Kapha* aggravating factors. The affected area looks like mud and hence the name *Kardam* is given. It is a serious skin ailment of necrotizing nature and is considered as similar to necrotizing fascilitis and gangrene etc. Affected area gets covered by reddish, pale eruptions which are suppurated, having putrid flesh and skin. When they are touched they burst and throw out decomposed and putrefied flesh showing blood vessels, ligaments and cadaverous smell. It is mentioned as incurable *Visarpa* in various *Ayurvedic* texts.

**Granthi Visarpa:** Is caused by aggravated *Rakta* and *Kapha-Pitta Dosha*. It causes glandular enlargements which are red in colour, small and painful located in the bones, muscles, blood vessels etc. It can be correlated with B-cell lymphoma and is considered as incurable.

## CASE REPORT :

A 33 years old male patient presented at Kayachikitsa (Medicine) O.P.D. at Sane Guruji Arogya Kendra, Malwadi, Hadapsar, Pune. by occupation the patient is a farmer.

He has scaly or crust lesions all over body, bilateral upper limb and lower limb edema, fever with chills, dehydration, itching all over body and mouth ulcers since 8 to 10 days. The initial assessments were made. He was febrile, pulse was 98/minute, blood pressure was 130/80 mm of Hg. Respiratory system parameters were normal. In cardiovascular examination, there were no added sounds. Abdomen was soft and nontender.

## ASHTAVIDHI PARIKSHA

1 Nadi	Vatpittaja	5 Drika	Samanya
2 Mala	Niram	6 Shabda	Spashta
3 Mutra	Samyak	7 Sparsha	Khara
4 Jiwha	Saam	8 Akruti	Krisa

**Laboratory investigations Values****Hematological investigations**

WBC 12700 /uL

Neutrophils (%) 60.3

Lymphocytes (%) 27.1

Monocytes (%) 6.7

Eosinophils (%) 5.2

Basophils (%) 0.7

Haemoglobin (g/dL) 12.7

Platelets (lac/uL) 2.28

ESR (mm/h) 32

**Biochemical investigations**

Blood urea (mg %) 24.4

Serum creatinine (mg/dL) 0.72

Liver function test

SGOT (IU/L) 26

SGPT (IU/L) 23.1

Alkaline phosphate (IU/L) 157.2

**USG (Abdomen and Pelvis) – NAD****ECG – Sinus rhythm****Urine analysis (routine and microscopic)** Within limits**Serology - Negative****DRUG AND TREATMENT PROTOCOL GIVEN**1. *Chandrakala Ras* 500mg 2 tablet thrice a day2. *Triphala and Haridra Jal Vrana Dhavanartha*3. *Shatadhaut Ghruta with Bhimsaini Kapoor* for Local Application (every 2 hourly)4. *Narikel Tail* for Local Application

5. *Rasamanikya Rasa* (1gm) + *Praval* (5gm) + *Godanti* (5gm) + *Satva* (10gm) + *Ananta* (10gm) + *Amalaki* (10gm) divided in 20 parts, 1 part twice a day with *Panchatikta Ghrita* 2tsp.
6. *Siravedha* (upper arm bilaterally on alternate day approximately 50ml).
6. Injection Augmentin (Amoxicillin+ Clavulanic acid) 1.2 gm IV twice a day
7. Tablet Omnicortil (Prednisolone) 20mg twice a day for seven days followed by 5 mg thrice a day for 5 days then 5mg twice a day for 5 days.
8. Tablet Dolo 650 (Paracetamol) SOS

## DISCUSSION

The patient showed tremendous improvement with treatment of 15 days. There was significant relief in symptoms such as redness, itching and swelling were markedly reduced.



*Chandrakala Rasa* comes under *Kharaliya Yoga* containing mainly *Kajjali* (black sulphide of mercury), *Tamra Bhasma*, *Abhraka Bhasma* along with different *Bhavana Dravya*. It is mentioned in different classical text books like *Rasa Ratna Samuchchaya*, *Bhaishajya Ratnavali*, *Yoga Ratnakara*, *Rasa Chintamani*, *Rasa Chandanshu*, etc. It is indicated in *Vata-Pittaja* disorders like *Jwara*, *Daha*, *Murcha*, *Bhrama*, etc.

In *Chandrakala Rasa*, *Dwiguna Bali Jarita Kajjali* is used for preparation of medicine. *Dwiguna Bali Jarita Parada* is said to cure *Maha Roga* as per *Rasa Tarangini*, *Kushta* as per *Ayurveda Prakasha*. It also has other properties like *Rasayana* (Anti-ageing) *Yogavahi* (as a catalyst), *Sarvaamayahara* (useful in many other diseases), *Vruyshya* (Aphrodisiac) and it pacifies *Tridosha* it increases bio availability of drug which helps to obtain greater efficiency of drug. *Tamra Bhasma* has *Lekhana* and *Pitta Saraka* qualities. It has the power to heal all *Pitta* and *Kapha* illnesses, both acute and chronic. Additionally, it treats every kind of *Kosthagata* and *Sakhagata Roga*. *Abhraka Bhasma* is used as a rejuvenating agent for brain and neuropsychiatric disorders, an aphrodisiac (*Vrushya*), an anti-aging agent (*Rasyana*), and it protects against all forms of *Maharoga*. When used wisely, it promotes long and healthy life. *Mukta Bhasma*

improves the appetite, brings down the burning sensations in body, it is good for aphrodisiac and provides longevity, it nullifies the influence of poisons over the body, it is useful in *Jirna Jwara*. *Shuddha Gandhaka* is a good rejuvenator and is recommended for *Kustha* (Skin diseases), *Visarpa* (Herpes zoster), and *Kandu* (Itching). It also counteracts the negative effects of *Gara visa* on the body. *Shuddha Hingula* has properties *Kapha-Pitta Nasak*, *Rasayana* (Anti-aging), *Vrishya* (Aphrodisiac), *Vishahara* (Anti-poisoning) and *Jwarahara* (Anti-pyretic).

*Rasmanikya Rasa* in offers beneficial effects in the management of diseases such as; leprosy, surface wounds, pus, boils dryness of skin, eczema, rashes and leukoderma, etc. Impurity of blood is one of the reason of skin ailments and *Rasmanikya Rasa* acts as *Raktashodhak* means it purify blood thus gives relief from skin problems, it is believed that presence of purified sulfur helps to detoxify blood. The ingredients of *Rasmanikya Rasa* acts as *Kushthahar*, thus relives symptoms of many skin diseases. The formulations impart calming and soothing effects thus help to reduces pain, itching and burning sensation related to skin problems. It reduces damage caused by sun-burn, restore energies and redress blood morbidity. The immunosuppressants effects give benefits in autoimmune skin diseases such as; Polymorphous Light Eruption, psoriasis and Systemic Lupus Erythematosus, etc. The presence of metallic compounds initiates re-pigmentation lost by disease consequences.

The herbs given for external application like *Haridra* (*Curcuma longa*) and *Triphala* were anti-inflammatory and mainly helped in the erosion of blisters which might have decreased the chance of wound progression by relieving pressure. They are anti-inflammatory and anti microbial in action, helped in reducing oedema and preventing secondary infection in the wound. Further, local application of medicated *Ghee* and *Taila* processed with *sheeta virya* (cold potency) and *tikta rasa* (bitter taste) drugs helped in reducing the burning sensation and itching. *Ghee* has a special quality of *nirvapana* (mitigating burning sensation) and also prevented excess drying up of the skin tissue. It prevents fluid loss from wound and also lubricates the surface of wound preventing hard eschar formation. It is having *Vranaropana* (healing) and *Kantivardhana* (improving luster) property which helps in early healing with good pigmentation.

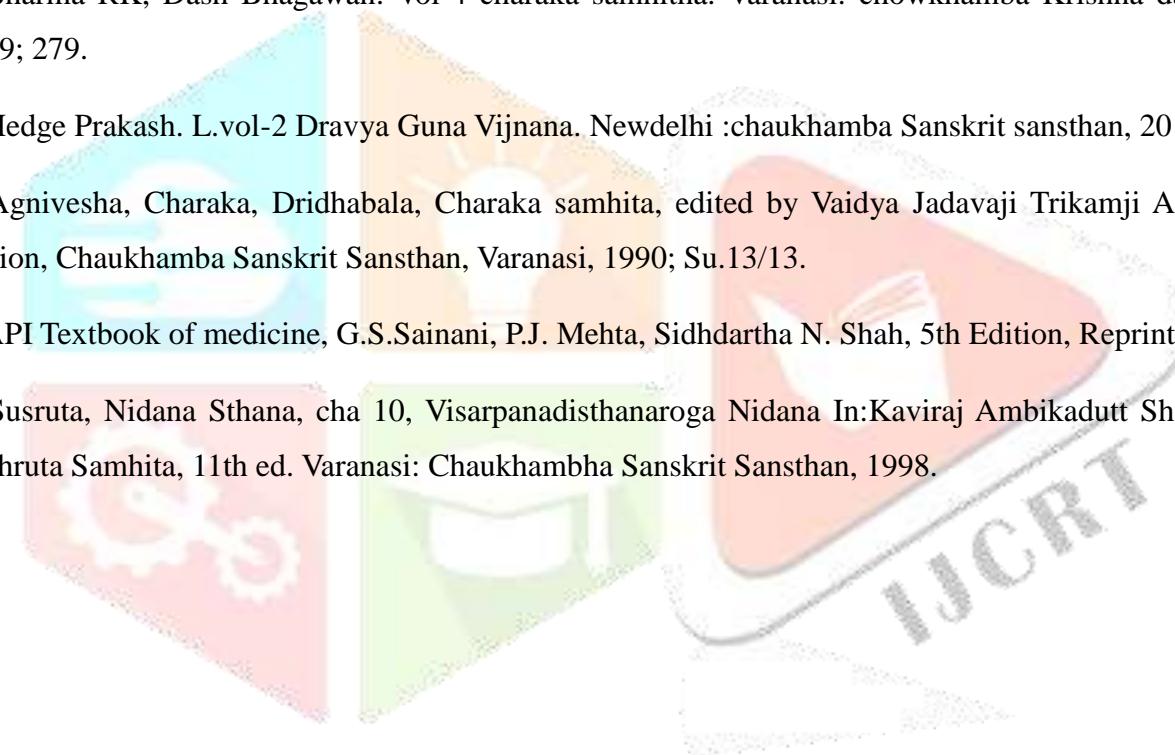
*Panchatikta Ghrita* exhibits *Deepana*, *Pachaka*, *Srotoshodhaka*, *Raktaprasadaka*, *Kandughana*, *Kushthaghna* and *Varnya* effects.

## CONCLUSION

Acute manifestation of Pustular Psoriasis can be easily managed by using Ayurveda treatment protocols. The above drugs are easily available and effective in reducing the symptoms and curing the disease by their medicinal properties as mentioned above. Also *Shatadhauta Ghrita* applied as *Lepa* give cooling and calming effect and reduces burning pain and sensation. *Siravedha* is the best *Panchakarma* procedure for eliminating the *Rakta doshas* in the body. Thus, *Chandrakala rasa*, *Triphala Haridra Vranadhavan* and *Shatadhauta ghrita* can be used to support management of skin manifestations such as *Visarpa*.

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