



# An Integrated Approach In The Management Of Irritant Contact Dermatitis, with *Ayurvedic* Intervention

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## ABSTRACT:

Contact dermatitis is common skin problem occurring in 15% to 17% of people. Contact dermatitis is an inflammatory process in the skin caused by an exogenous allergen or an agent that directly or indirectly injures the skin. It may be allergic (ACD) or irritant (ICD). Irritant contact dermatitis is a nonspecific response of skin to direct chemical damage that releases inflammatory mediators predominantly from epidermal cells. Available treatment protocols in modern are identification and avoidance of causative agent or irritant, antihistamines, systemic or topical steroids and moisturizers. In this case report, a female presented to hospital with diagnosis ,Irritant Contact Dermatitis Acute. She was treated with modern as well as *ayurvedic* medicines, after two weeks of treatment ,the improvement was noticed in symptoms like

itching, redness and burning sensation in the skin. The line of treatment in this case was to treat provoked *pitta dosha*, vitiated *twaka*, *mamsa*, *vasa* and *ras*, *rakta dhatu*.

**KEYWORDS:** Dermatitis; irritants; *kshudrakushtha*; *pittapradhana tridoshaj vyadhi*; etc.

## INTRODUCTION:

Dermatitis is inflammation of skin caused by factors such as allergen, irritants, UV light, foods, medications, hereditary etc. Contact dermatitis is an inflammatory process in the skin caused by an exogenous agent or an agent that directly or indirectly injures the skin. It is subdivided into two main types, allergic contact dermatitis (ACD) and irritant contact dermatitis (ICD). The prevalence of contact dermatitis in India is 4.38%. ICD accounts for 80% of all contact dermatitis reactions. ICD is non-allergic skin reaction occurs when an irritant damages your skin's outer layer. It can be acute or chronic. Irritants can be classified as cumulatively toxic (eg. hand soap causing irritant dermatitis in hospital employee), sub-toxic, degenerative, or toxic (eg. hydrofluoric acid exposure at chemical plant). ICD occurs due to sufficient inflammation arising from the release of pro-inflammatory cytokines and chemotactic factors from keratinocytes, usually in response to chemical stimuli. It mainly causes skin barrier disruption, epidermal cellular changes, and cytokines release.

If contact dermatitis is suspected and an offending agent is identified and removed, it will resolve. Usually treatment of ICD is topical but, if necessary the, systemic corticosteroids are also effective. In Ayurveda, there is no clear description of dermatitis, but if we look into text deeply, the clinical features of *kshudrakushtha* can be correlated with dermatitis. *Kushtha* is a *tridoshaj pradhan vyaadhi* and main *dushyas* are *twak*, *rakta*, *mamsa*, *rasa*. It is disorder of *rakta* and is also known as *mahagada*. As *pitta dosha* is predominantly vitiated, so in *ayurvedic* treatment, *tikta kashaya dravyas* are used to cure skin diseases. Hence with this background, trial drugs were selected for the presented case.

### *Samprapti Ghataka:*

- ✧ *Dosha: Pittapradhan tridosha*
- ✧ *Dushya: Rasa, Rakta, Mamsa, Vasa, Twak*
- ✧ *Agni: Manda*
- ✧ *Doshagati: Vriddhi, Tiryak, Shakh*
- ✧ *Vyadhimarga: Bahya*
- ✧ *Srotas: Rasavaha, Raktavaha*
- ✧ *Srotodushtiprakara: Vimargagamana*
- ✧ *Udbhavsthana: Aamashaya*
- ✧ *Vyaktisthana: Twak*

## MATERIALS AND METHODS:

### Case report:

55 year old female, married, was registered in OPD of the Department of *Kayachikitsa*, on 26 May,2022 with complaints of itching all over scalp region with skin lesions over bilateral upper limbs,neck region, chest and abdomen, reddish dis-colouration, with burning sensation and mild watery discharge through it, since last 10-15 days.

### History of present illness:

According to the patient she was asymptomatic before 15 days. She had history of application of hair dye at that morning(15 days back), since then from the morning she started experiencing the symptoms. She also have fever with chills since last 10 to 15 days and 2 episodes of loose motions 2 days before.She had decreased appetite with irregular bowel habits. She consulted outside for same, took medicines, but not relieved, hence referred to our hospital for further management .

She did not have any previous medical illness.She had history of Caesarean section 22 years ago. She was operated for incisional hernia (i.e.hernioplasty). At that time she had received two point PCV transfusion. Her family history revealed that there was no such complaint ever. She had addiction of mishri application since last 22 years. On the general examination pulse rate was recorded to be 78/min, BP:110/70mmHg, and temperature 98.6 F. On the basis of systemic examination, no abnormality was detected in the gastrointestinal, respiratory, cardiovascular and nervous system. *Prakriti* of the patient was diagnosed as *Kaphavataj* while *nadi pittakaphaj*. There was no complaint with regard to *mutra* (urine) but *mala* (stool) was irregular and *jivha* (tongue) was slightly coated.

### Laboratory investigations Values

#### Hematological investigations

WBC	:	8250 th/uL
Neutrophils (%)	:	55.2
Lymphocytes (%)	:	10.3
Monocytes (%)	:	9.4
Eosinophils (%)	:	25
Basophils (%)	:	0.1
Haemoglobin (g/dL)	:	10.7
Platelets (lac/uL)	:	2.24
ESR (mm/h)	:	12

**Biochemical investigations**

Blood urea (mg %) : 14.4

Serum creatinine (mg/dL) : 0.52

**Liver function test**

SGOT (IU/L) : 16

SGPT (IU/) : 13.1

Alkaline phosphate (IU/L) : 127.2

USG (Abdomen and Pelvis) – NAD

ECG – Sinus rhythm

2D ECHO – Normal echo study

Urine analysis (routine and microscopic) Within limits

Serology - Negative

**Differential Diagnosis:**

The diagnosis was confirmed on the basis of symptoms ,physical examination and the history given by the patient.

**Study Design:**

On the basis of symptoms, the treatment was carried out initially, a combination of modern medicine and *ayurvedic kalpa* was given. The treatment comprised of *Abhyantara* and *Bahya chikitsa*, with *ayurvedic kashaya kalpana* for *dhavana karma* and medicated oil and *ghrita* for *ropana*. Allopathic medicines started as per Dermatologist's guidance and assessment of the patient was done at the interval of 15 days. The subjective assessment was done on the basis of the scoring pattern. During the treatment ,she was advised to take easily digestible food and to avoid fried, junk, heavy, spicy food and non-veg. She was encouraged to move her limbs so that lesion did not get adhered .

**TABLE NO.1:** Medications and procedures applied in the present case:

No	Medications	Dose	Time	Duration
1)	<i>Gandhak Rasayana</i>	250 mg	Twice a day after meal	15 days
2)	<i>Mahamanjishthadi Kwath</i>	20 ml	Twice a day after meal	15 days
3)	<i>Triphala+Nimbapatra kashaya</i>	-----	Thrice a day ( <i>Dhavanarth</i> )	15 days
4)	<i>Shodhanataila+Narikela taila+Goghrit+Bhimnseni karpoor</i>	-----	Thrice a day(for local application after <i>dhavana</i> )	15 days

**TABLE NO.2:** Allopathic medicines applied in present case:

No.	Medicines	Dose	Route	Time	Duration
1)	Inj. Augmentin	1.2 gm	IV	TDS	7 days
2)	Inj. Omez	40 mg	IV	OD	7 days
3)	Tab.Fexofenadine hydrochloride	180 mg	P.O.	BD	10 days
4)	Aqua soft lotion	-----	L.A.	TDS	15 days
5)	Tab. Wysolone	10 mg	P.O.	TDS the BD then OD	21 day
6)	Topmetro gel	-----	L.A.	TDS	15 days

**Subjective Assessment Criteria:**

The subjective assessment criteria were skin lesion size,oozing, burning sensation,skin redness, severe itching,sunlight sensitivity especially on face.

Sr.No.	Symptoms	0 day	6 <sup>th</sup> Day	10 <sup>th</sup> Day	15 <sup>th</sup> Day
1)	Redness	3	2	1	0
2)	Itching	3	2	1	1
3)	Lesion	3	2	2	0
4)	Dryness	2	2	1	0
5)	Burning Sensation	3	2	2	1
6)	Oozing	3	2	1	0

## RESULTS:

The progress report of the patients given in Table no.3 in the form of scoring. After treatment, patient got significant relief in the symptoms. As the patient was hospitalized daily follow up was taken. During this period the symptoms i.e. burning sensation, itching, oozing have been improved. After completion of the treatment patient was discharged from hospital and follow up was made after 7 days.

## DISCUSSION:

The reference of *Gandhak Rasayana*, a drug selected for treatment, is taken from *Yog Ratnakara Rasayan Rogadhikar*. The main content of this drug is *Shuddha Gandhak*. Different *Bhavana dravyas* are used to enhance efficacy of the *Kalpa*. Most of the contents of *kalpa* are of *Tikta rasa, Laghu* and *Ruksha guna*, so it acts as an anti-itching. It mainly acts on *kleda, lasika, pitta, rakta, sweda and shleshma*. It acts as *kleda* and *vikrut meda upshoshak* and *vranashodhak*. It helps to purify blood, stops secondary infections & eliminates pus and toxins as well.

Packed with effective herbs like *Triphala, Manjishtha, Vacha, tikta, Khadira, Darvi, Nisha, Mahamanjishthadi kadha* helps to purify the blood. Blood can become impure due to the presence of toxins. The presence of toxins in the body is nothing but *Aama*, because of the weakness of *Agni*. Simultaneously, imbalance in *Doshas* can increase presence of toxins. The *Mahamanjishthadi kadha* breaks the vicious cycle, and removes the toxins from the blood. *Raktavaha strotas* have *Yakrut-Pleeha* as their *mulsthanas*. *Mahamanjishthadi kadha* acts as stimulant to liver enzymes and also helps to spleen to remove any cellular waste. Thus it has anti-inflammatory and antioxidant effect.

*Triphala* having *Rasayan gunas* balances *tridoshas*. The *ruksha, laghu guna* of the *triphala* along with *Nimba*, in *decoction* form acts as *kled shoshak & vrana shodhak*. *Nimba*, having main constituents *nimbodin* possesses significant anti-inflammatory and anti-ulcer effects.

*Ghrit* has lipophilic action so helps in ion transportation to a target organ. This lipophilic nature of *ghrit* facilitates entry of drug into the cell. Also, it helps in restoring the normal texture of the skin. So all these properties act mainly on the cellular level thus improving cell cycle as a result symptoms like deranged complexion, reddish patchy areas, are reduced giving normal texture to skin. *Vranashodhak taila* contains *Karveera, Nirgundi, Nimba, Dhatri, Haritaki* and *Karanj*. The *Laghu, ruksha, kledshoshak* are combined benefits of different *dravyas*, as mentioned above, in *taila*.

The benefits of *Bhimseni Kapoor* are versatile due to its antibacterial, anti-inflammatory and antifungal properties.

Inflammatory skin disorders require additional nutritional support. Therefore, it is important to ensure the essential nutrients in food to support normal skin. Some foods provoke irritant dermatitis, elimination of that diet can heal ICD. The use of dietary fatty acids, antioxidants and hydrolyzed proteins can be beneficial in managing inflammatory skin problems.

BEFORE

AFTER



## CONCLUSION:

The present case study concludes that the holistic approach of the *Ayurvedic* system of medicines gives relief to the patient of irritant contact dermatitis. There was no adverse effect found during the *Ayurvedic* medication. On the basis of this case study, it can be concluded that *Gandhak Rasayana*, *Mahamanjishthadi kwatha* and *Bahya Upakrama* along with allopathy medicine are effective in management of ICD. From this study it can be stated Ayurveda is beneficiary in quick healing and speedy recovery of ICD.

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