



## AYURVEDIC MANAGEMENT OF DRUG INDUCED EXFOLIATIVE DERMATITIS W.S.R RAKSA-SINGLE CASE STUDY

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**ABSTRACT** Drug-induced exfoliative dermatitis also known as erythroderma is a group of rare and severe drug hypersensitivity reactions involving skin and usually occurring from days to several weeks after drug exposure. Cutaneous drug eruptions are one of the most common types of adverse reactions to medications. Although the etiology is often unknown, exfoliative dermatitis may be the result of a drug reaction or underlying malignancy. In Ayurveda, this clinical entity can be correlated with Raksa (~skin disease). Acharya Sushruta has described Raksa as Ksudra kushtha and also as a Ksudra roga having dominance of Kapha dosha with clinical representation of eruptions with pruritis. The word "Kushtha" (~skin disease) is used in Ayurveda generally as a universal term for all types of skin disorders or manifestations. Kushtha is a Tridoshaja vyadhi mentioned in Ayurveda that undergoes manifestation in the Bahya rogamarga. Here we represent a case of 36-yr old female patient complaining of reddish patches over left and right hypochondriac region with intense itching and burning sensation that has been treated successfully with Rasa manikya, Prawal pishti, Kaishore guggulu, Avipattikar churna, Maha manjisthadi kashyam for 15 days of regular treatment. The present case report illustrates the significance of Shamana chikitsa in the management of Raksa.

**KEYWORDS :** Drug induced exfoliative dermatitis, Ksudra kushtha, Raksa, Shamana chikitsa

### INTRODUCTION:

The skin constitutes one of the largest interfaces between the body and the environment. Any skin disorder can be imitated, induced by drugs. Cutaneous drug eruptions have become very common in recent times. The incidence of cutaneous drug eruptions is about 2.2% or higher.<sup>[1]</sup> The incidence increases in proportion to the number of drugs prescribed. The long term prognosis is good in patients with drug induced disease, although the course tends to be remitting and relapsing in idiopathic cases. Drug induced exfoliative dermatitis is a group of rare and severe drug hypersensitivity reaction involving skin and usually occurs from days to several weeks after drug exposure. The most common complaint in patients with exfoliative dermatitis aside from rash is pruritis, which occurs in approximately 90% of patients. T cells are the central player of these immune-mediated drug reactions.

In *Ayurveda* classics, skin diseases are explained under the term *Kushtha*. There are two main types of *Kushtha* i.e. *Maha kushtha* and *Kshudra kushtha*.<sup>[2]</sup> The *Samprapti* (~etiopathogenesis) of *Kushtha* begins with the multitude of interaction of *Tridosha* with *Twak* (~skin), *Rakta* (~blood), *Mamsa* (~muscle tissue) and gradually may afflict other *Dhatu*, depending upon the strength of *Samprapti ghataka* (~pathophysiological components). Clinical features of *Raksa* are explained as a condition in which skin have eruptions associated with itching but without any discharge.<sup>[3]</sup>

Based on clinical presentation, *Raksa* can be correlated with drug induced exfoliative dermatitis.

### Patient Information

A 36 years old female patient known case of hypothyroidism and sciatica visited the *Kriya sharir* (~physiology) OPD on 27/08/2022, with the chief complaints of reddish patches over left and right hypochondriac region with intense itching and burning sensation for 15 days. Patient was giving history of taking allopathic drugs like painkillers (Tablet Aceclofenac & Thiocolchicoside 100mg/4mg twice a day), multivitamin capsules once a day, antacids (Capsule Pantosec DSR empty stomach in the morning) for sciatica since one month. Tablet Aceclofenac & Thiocolchicoside caused side effects to the patient as these two medicines have side effects include itching, rashes, dry mouth etc. That's why, soon after taking the treatment she started developing these symptoms (eruptions and itching). She stopped the allopathic treatment but she had the eruptions and itching like symptoms even after stopping the treatment then she visited the physiology OPD for the possibility of treatment.

### Clinical Findings

On examination, there were eruptions over right and left hypochondriac region. These eruptions were associated with *Kandu* (~itching) and *Daha* (~burning sensation). Other physical parameters were normal. Patient indicated that eruptions started

developing after taking allopathic treatment for sciatica as patient gave history of sciatica and hypothyroidism. No specific history of any major illness, previous surgery history was given by the patient. No family history related to drug allergy was noted by the patient. Her appetite was normal, her bowels were normal and her bladder was regular. No specific history of addiction was noted. Patient has sedentary lifestyle. Quality of sleep was disturbed due to itching. Pallor, icterus, clubbing, cyanosis and lymphadenopathy were absent on general examination. B.P, Respiratory rate and temperature were within normal limits. Systemic examination didn't reveal any abnormality. *Prakruti* of patient was *Pitta-vata*.

### Astavidha Pariksha (~Eight-fold examination)

*Nadi* (~pulse) was 74/min, regular with *Pitta-vata* dominance, *Mutra* (~urine) was *Samyak* (~normal) 6-7times/day and 0-1 times/night, *Mala* (~Stool) and *Jihwa* (~Tongue) were *Nirama* (~processed and digestive food particle), *Shabda* (~sound) was *Spashtha* (~clear), *Sparsha* (~Tactile examination) was *Anushnasheeta* (~not too hot), *Drik* (~eyesight) was *Prakruta* (~normal) and *Akruti* (~Body stature) was *Madhyama* (~average built).

### Samprapti Ghataka (~Main pathophysiological components)

The primary *Nidana sevana* (~Causative factor) was the medicines taken by the patient (Aceclofenac & Thiocolchicoside tablets). *Vitiated dosha* was *Kapha-pitta pradhana tridosha*. *Dushya* (~Pathognomonic factors) were *Twak* (~skin) and *Rakta* (~blood). The status of *Agni* (~Digestive fire) was *Jatharagnimandya* (~impaired metabolism). The involved *Srotas* (~Structural or functional channels) in the manifestation of disease were *Rasavaha* (~channels of plasma) and *Raktavaha* (~channels of blood). *Srotodushti* (~Mode of the system involved) was *Vimarga gamana* (~vitiation of body humour to other places), *Marga* (~Disease manifestation place) of the disease was *Bahyaroga marga*, *Adhishtana* (~Site) was *Twak* (~skin).

### Differential Diagnosis

#### Pama

Points in favour are that *Pama* is characterized by symptoms like *Daha* (~burning sensation) and *Kandu* (~itching).<sup>[4]</sup> Points against diagnosis is *Pama* occurs due to dominance of *Pitta dosha*<sup>[5]</sup> and discharge occurs from the eruptions.<sup>[6]</sup>

### Diagnostic Assessment

Hematological parameter such as Complete blood count (CBC) and Thyroid profile was carried out, CBC was found within normal limits and TSH level was 7mIU/L. Avoiding fast food, oily food, pickles etc was advised to avoid. The nature of the disease is *Ashukari* (~acute) so the prognosis of the disease is good.

### Timelines

Assessment of the skin lesions was done on the first visit and

intermittent monitoring was done weekly, for the next consecutive 15 days. The follow-up was done on the 7<sup>th</sup> day after stopping the treatment.

### Therapeutic Intervention

After the case conceptualization, the patient was put on Ayurveda conservative medicine as per involved *Samprapti* (~pathogenesis). The patient was prescribed *Avipattikar churna* 4gms twice a day empty stomach with potable water, *Rasa manikya* 125mg with combination of *Prawal pishti* 250mg twice daily with *Malai, Kaishore guggulu* 500mg twice a day with potable water, *Maha manjishthadi kashyam* 20ml two times a day with equal quantity of water. All the medicines were taken after meals except *Avipattikar churna* (taken empty stomach) for two weeks. She was instructed to refrain from eating foods that were incompatible with her treatment modality, such as junk food and excessive amounts of fatty, salty, and spicy foods.

### Assessment Criteria

The assessment criteria were based on the clinical characteristics of *Raksa*. The photographs of affected areas were taken before initiation of treatment, subsequently on every visit (Figure 1 & 2)

### Follow-Up and Outcome

Assessment of the female patient diagnosed with *Raksa* was done according to grading criteria (Table 1). After the completion of the treatment period, all the symptoms at both sites completely disappeared with no recurrence after 15 days of treatment (Table 2). No adverse drug response was seen throughout the treatment and during the follow up period. Due to relief in itching, the quality of sleep also improved.

### DISCUSSION

The word "*Kustha*" is used in *Ayurveda* generally as a universal term for all types of skin manifestations. *Kustha* has been broadly classified as *Maha kustha* and *Ksudra kustha*<sup>[7]</sup> based on the involvement of *Dosha* and *Dushya*, severity of symptoms and treatment required. *Raksa* is considered as *Ksudra kustha* by *Acharya sushruta* which manifest as papular lesions which are associated with itching.<sup>[8]</sup> Dietetic, behavioural, environmental, genetic and immunologic factors appear to play an important role in the pathogenesis of *Kustha roga* including *Raksa*. Based on symptomatology, itching is suggestive of dominance of *Kapha* and skin rashes or eruptions characterized with redness is suggestive of *Pitta* dominance.

The principal management of *Kustha* includes *Shodhana karma* (~treatment modality based on principle of removal of vitiated *Dosha*), *Shamana chikitsa* (~internal administration of drugs), and *Bahirparimarjana* (~topical application). As the side effect of the drug taken by the patient appeared on the superficial layer, so *Shamana chikitsa* played an important role in treating the patient.

### Probable Mode Of Action Of Chosen Formulations

*Rasa manikya* offers beneficial effects in the management of diseases such as leprosy, pus, boils, eczema, rashes and leukoderma etc. *Rasa manikya* imparts calming and soothing effects thus helps to reduce pain, itching and burning sensation related to skin problems. It breaks immunological adversity which can trigger skin manifestation. Ingredients of *Rasa manikya* enhance digestive fire therefore contributes towards development of skin tissue. The major ingredients of *Rasa manikya* are *Tamra bhasma* (~copper), *Shuddha gandhaka* (~pure sulphur) *Hartala* (~Orpiment/yellow arsenic) and *Abhrak bhasma* (~mica). *Tamra bhasma* helps in red blood cells formation thus restore complexion and chances of disease which can arise due to vitiation of blood. Presence of *Shuddha gandhaka* helps to detoxify blood. *Hartala* offers beneficial effects in skin diseases like itching, eczema and herpes etc. *Abhrak bhasma* boosts immunity thus prevents skin infection.<sup>[9]</sup>

*Prawal pishti* is given in combination with *Rasa manikya* to pacify the *Ushna guna* of *Rasa manikya*. *Prawal pishti* is *Sheeta*<sup>[10]</sup> *Kapha-pitta shamaka* so it also reduces the burning sensation related to skin problems.

*Kaishore guggulu* mainly used as an anti-allergic, antibacterial and blood purifier.<sup>[11]</sup> It acts as aging skin health promoter, natural blood cleaner, useful as supportive dietary herbal supplement in many health condition such as diabetes, skin diseases etc. It is used in various

*Ayurvedic* formulations. Traditionally, it is used for skin disorders.<sup>[12]</sup> It is known to have analgesic, anti-inflammatory activity etc.

*Avipattikar churna* is a rational composition of herbs formulated to strengthen *Jatharagni* (~digestive fire) with subsidiary effect on *Pitta* and also expels excessive *Pitta* by its mild laxative action.<sup>[13]</sup>

*Mahamanjistadi kashayam* is an *Ayurvedic* supplement that helps purify the blood. It helps in maintaining healthy blood circulation. It is also known as immune modulator as the ingredients of *Mahamanjistadi kashayam* helps to strengthen the working of the immune system. *Manjistha* is one of the ingredients in the medicine that has a helpful effect on liver and lymphatic system. It is particularly effective in helping to maintain *Pitta* vitiation.<sup>[14]</sup>

### CONCLUSION

This case report suggests that *Ayurvedic shamana chikitsa* is effective in managing drug induced exfoliative dermatitis without causing side effects. *Ayurvedic* formulations provide an excellent approach to the management of *Raksa*, as evidenced by the fact that the medications chosen were risk-free, affordable, and without side effects.

### Declaration Of Patient Consent

Authors certify that they have obtained patient consent form, where the patient has given his consent for reporting the case alongwith the images and other clinical information in the journal. The patient understands that his name and initials will not be published.

**Table 1. In-house assessment criterion**

S.No	Symptoms	Grade 0	Grade 1	Grade 2	Grade 3
1.	Kandu(~itching)	Absent	Occasionally	Frequent	Intense and constant
2.	Daha(~burning sensation)	Absent	Mild	Moderate	Severe
3.	Eruptions	Absent	Mild	Moderate	Severe

**Table 2.**

S.No	Clinical features	Before treatment	Day 7	Day 15	After follow up
1.	Kandu(~itching)	3	1	0	0
2.	Daha(~burning sensation)	3	0	0	0
3.	Eruptions	3	1	0	0

### Before Treatment



**Figure 1**

### After Treatment



**Figure 2**

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