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Management of Contact Dermatitis by *Jaloukavacharana* (Leech Therapy): A Case Report

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ABSTRACT

Contact dermatitis is a common skin condition characterized by rashes caused due to contact with chemical or physical irritants, allergic substances or sunlight. The initial exposure to irritant triggers an immune response which later on each exposure causes T cell reaction resulting in inflammation of the effected skin. The contemporary treatment involves identifying and avoiding the irritant as well as topical steroid application which is a palliative approach and does not give a permanent solution to the condition which at times progresses to chronic contact dermatitis. In Ayurveda this skin condition may be correlated to *vicharchika kushta*. This case report is of a 40-year-old female who came to OPD with itchy oozing rashes with burning sensation which was diagnosed as chronic contact dermatitis. The treatment protocol opted was *amahara, jaloukavacharana* and *shamana*. The patient was assessed during regular follow up at 7th, 15th and 21st days and showed significant relief with the treatment. The case is a proof that Ayurveda has the solution for chronic contact dermatitis which often does not respond to contemporary treatment protocol.

Key words – Dermatitis, *vicharchika*, *jalouka*, leech therapy

INTRODUCTION

Contact dermatitis is caused by contact with a foreign substance resulting in localized large, burning and itchy rashes or irritation of the skin. Only the superficial region of skin involving the epidermis and outer dermis are affected in contact dermatitis which may take anywhere from several days to weeks to heal only if the skin no longer comes in contact with the allergen or the irritant. When the removal of the offending agent no longer provides expected relief, it is considered as chronic contact dermatitis. Contact dermatitis is classified into three: irritant contact dermatitis, allergic contact dermatitis, and photo-contact dermatitis. Irritant contact dermatitis can be caused by chemical irritants or physical irritants. Common chemical irritants include: solvents (alcohol, xylene, turpentine, esters, acetone, ketones etc.), metalworking fluids (neat oil, water-based metalworking fluids with surfactants), latex, kerosene, ethylene oxide, surfactants in topical medication and cosmetics, and alkalies. Physical irritants may most commonly be caused by low humidity from air conditioning and even plants [1].

Pathologically, irritant contact dermatitis is considered as an acute eczematous condition which is characterized by red, papulovesicular, oozing, and crusted lesions that, if persistent, develops into raised, scaling plaques due to reactive acanthosis and hyperkeratosis. Papulovesicular lesions are prone to bacterial superinfection, which produces a yellow crust. With time, persistent lesions become less wet and become progressively scaly as the epidermis thickens. Initially,

antigens at the epidermal surface taken up by dendritic Langerhans cells, presented to naïve CD4+ T cells, which are activated and develop into effector and memory cells. On antigen re-exposure, these memory T cells migrate to affected skin sites of antigen localization, where they adhere to post-capillary venules, extravasate in to tissues, and release cytokines and chemokines that recruit the numerous inflammatory cells characteristic to eczema.

Treatment of eczema involves a search for offending substances that can be removed from the environment. Topical steroids can also be used that non-specifically block the inflammatory process. Such treatments are palliative not curative, but are helpful in interrupting acute exacerbations of eczema that can be self-perpetuating if unchecked[2].

In Ayurveda, all skin conditions are included in *kushta*. *'kushnathi – kutsitham karothi'*, *'tvacho vaivarnyam kurvanthi tatkushtamushanti'*[3]. The word *kushta* etiologically means any condition which causes discolouration or derrangement of skin. The acharyas have classified *kushta* based on the symptoms into 18 types out of which 7 are considered as *mahakushta* and 11 are considered as *kshudra kushta*[4]. Among the *kshudra kushta – vicharchika* with symptoms of *kandu, pidika, syavata, laseekadya* may be considered as contact dermatitis[5]. According to Bhoja, *dushta dosha* situated in *twak mamsa* of *pani pada* causes *pidaka, daha, kandu* and causes cracks in the skin. It is said to be *pitha* or *pithakapha pradhana*[6]. *Jaloukavacharana* is indicated as a mode of *rakthamoksha* in *paithika* condition[7].

CASE REPORT

A 40-year-old married female came to the OPD with C/O itching, rashes, burning sensation and oozing in dorsal and plantar aspect of left foot. The symptoms started 1 year back following constant use of rubber footwear. The lesion started as a small patch between big toe and second toe and gradually increased in size covering distal part of plantar and dorsal aspect of the left foot. It was pre-diagnosed as irritant contact dermatitis by conventional medical practitioners. The footwear was identified as the irritant and advised to avoid it. She underwent treatments including topical application and internal medication with good results. The patient was asymptomatic for 4 months but 2 months back it relapsed even though she was avoiding the irritant. Following which she took conventional medication for 1 month which showed little or no response. She had no history of DM/HTN/Asthma. Her vitals were normal. On examination there was a widespread lesion on the plantar and dorsal region of the left foot measuring 10cm x 5cm.

MATERIALS AND METHODS

Single case study. Written consent was obtained from the patient before treatment.

Treatment Protocol: The patient was managed in OPD. Initially, the patient was given internal medication for *amapachana* for 7 days. *Jaloukavacharana* was done on the 8th day after which the patient was advised to take internal medication along with external application. Follow up was done on 15th day and 45th day after *jaloukavacharana*

Treatment Given:

Table 1: Treatment from 1st -7th day (*amapachana*)

Drug	Dose	*Anupana*
Patolakaturohinyadi Kashaya	15ml bd	45 ml luke warm water
Triphala kashaya Kshalana		

Table 2: Treatment on 8th day (*Jaloukavacharana*)

Stage	Procedure	Drugs/Materials required	Duration
Poorvakarma	*Nirvisha jalouka* was selected. *Jalouka* was taken from the pot and placed in turmeric water for a while to activate it and then transferred to fresh water. Patient was made to lie in a comfortable position in the minor operation theatre under all aseptic care.	*Nirvisha jalouka* *Haridra choorna* Pure water	-

Table 2 Continued			
Pradhanakarma	Affected area was well cleansed with *triphala Kashaya* and allowed to dry. Lancet prick was made on dorsal and ventral aspect of the foot respectively to facilitate *jaloukavacharana*. Once *jalouka* started sucking blood, it was covered with wet cotton. *Jalouka* was left undisturbed till the patient complained of pain and itching at the site. *Saindhava choorna* was sprinkled on *jalouka* to detach it.	*Triphala Kashaya* Lancet Cotton Saindava choorna	
Paschatkarma	1.FOR WOUND:-*Haridra choorna* was applied at the *jalouka vrana* to promote remaining *dosha shamana*. A gauze soaked in *Shatadhouta ghrita* was applied on the site and bandaging was done. 2.FOR *JALOUKA*:- *Jalouka* was transferred to a kidney tray. *Haridra choorna* was sprinkled over it to enhance regurgitation of sucked blood. *Jalouka* was then transferred to fresh water and made active again.	*Haridra choorna* *Satadouta ghritha* Gauze pad Gauze roll Kidney tray	

Table 3: Treatment from 9th to 15th day

Drug	**Dose**	***Anupana***
Avipathi choornam	1 tsp bid with *Manjishtadi kashayam*	
Manjishtadi kashayam	15ml tid with 45 ml luke warm water B/F	
Mahathiktakam ghritham E/A	Quantity sufficient	

Table 4: Treatment from 16th – 45th day

Drug	**Dose**	***Anupana***
Mahathikthakam ghritham	1 tsp in morning empty stomach	Milk

RESULT AND OBSERVATION

The patient had significant improvement. The lesion subsided with normal skin replacement by the last follow up.

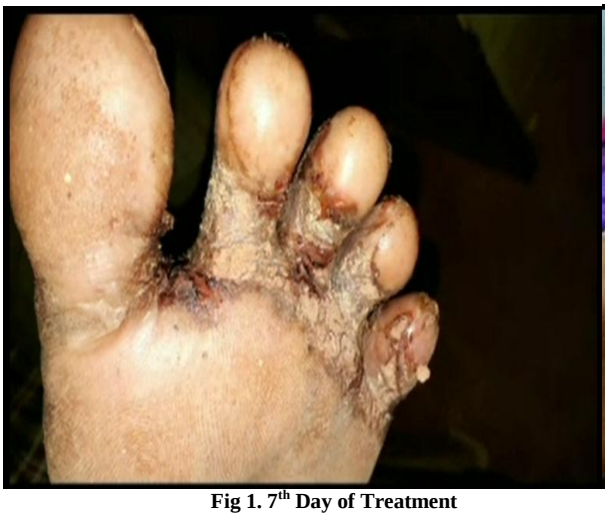

Fig 1. 7th Day of Treatment

Fig 2. 8th Day of Treatment

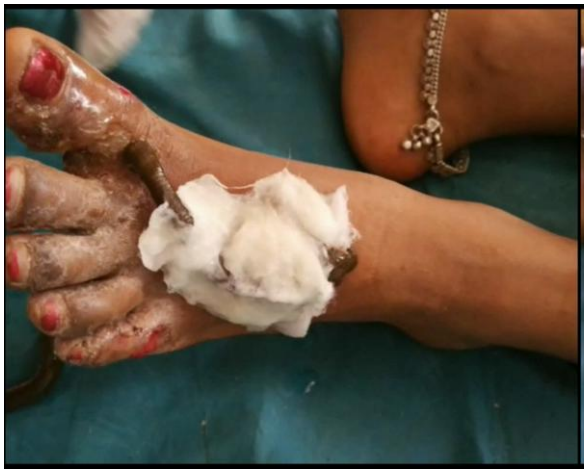

Fig 3. *Jaloukavacharana* (leech therapy)

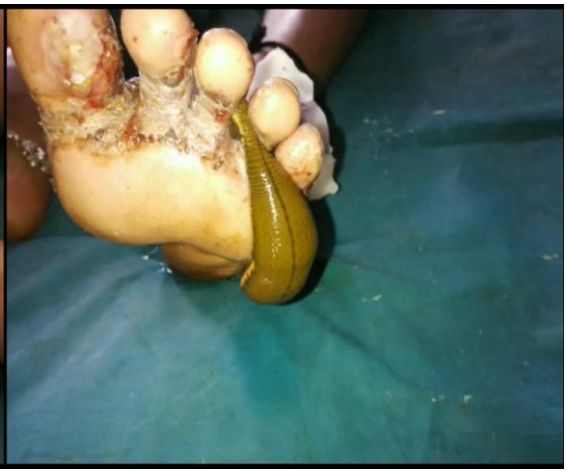

Fig 4.

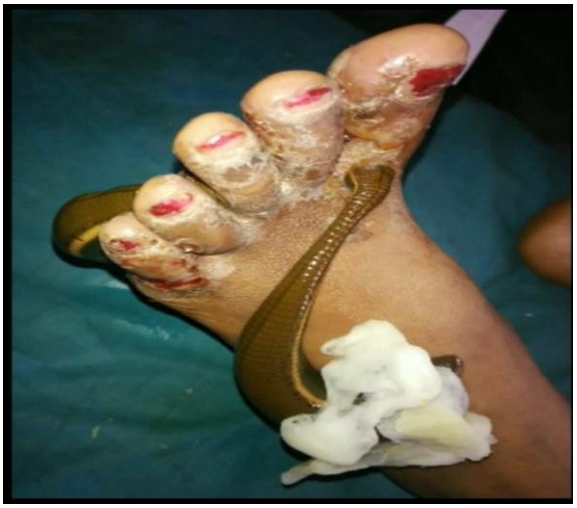

Fig 5. *Jaloukavacharana* (leech therapy)

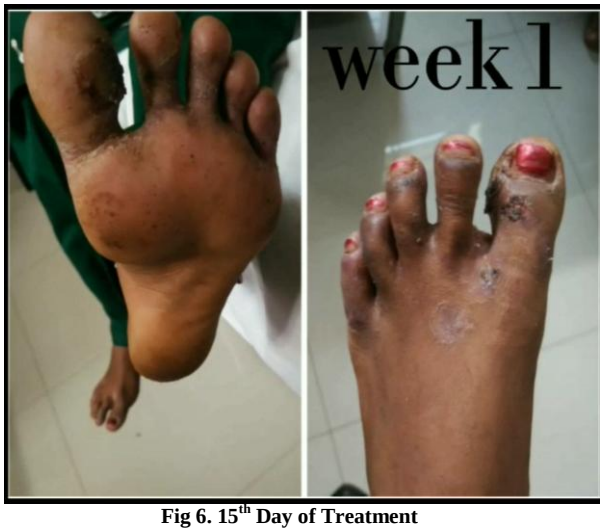

Fig 6. 15th Day of Treatment

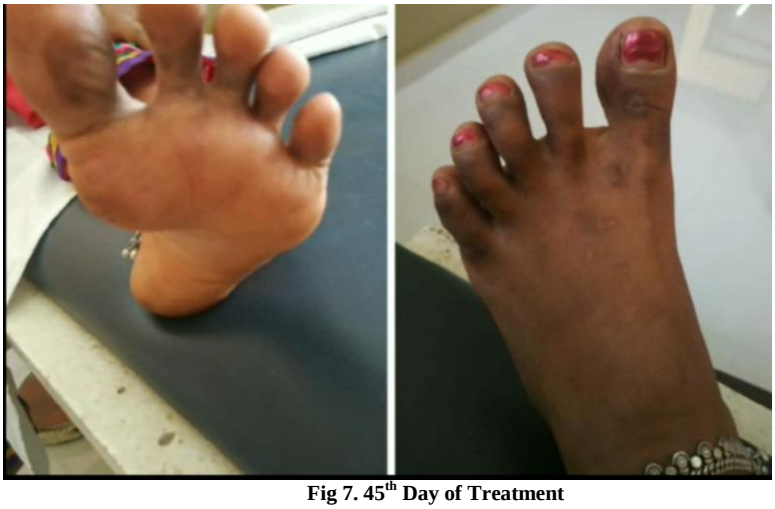

Fig 7. 45th Day of Treatment

DISCUSSION

Contact dermatitis is a localized rash or irritation of the skin caused by contact with a foreign substance involving the superficial layers of skin i.e the epidermis and dermis. According to Ayurveda, the *kshudra kushta, vicharchika* with symptoms of *kandu, pidika, syavata,* and *laseekadya* may be considered as contact dermatitis[5]. Even though *vicharchika* is mentioned as a *kapha* predominant disease it is mentioned in *Susruta Samhita* that similar symptoms which occurs in the *pada* with associated *daha* is considered as *vipadika*. It is further elaborated in Bhoja Samhita as *pitha* or *pithakapha pradhana vikara*[6]. In the present case the patient presented with severe itching and oozing with mild burning sensation in the site of lesion. As the symptoms indicated *saamadosha avastha, amapachana* and *agni deepana* was the initial line of treatment. *Patola katurohinyadi kashayam*[8] was selected as it has the above said properties along with *rookshana*. *Kshalana* was done simultaneously with *Triphala kashaya* for making the lesions dry[9]. In view of the *rakta dushta lakshanas* like *daha* and *shyavata, raktamokshana* was a must in this case. Considering the *paithikatwa* and *avagadathwa* as the chronicity indicates *Jaloukavacharana* was the choice as mode of *rakthamokshana*[10]. On the 8th day, *Jaloukavacharana* was done.

After *rakthamokshana* the treatment was aimed at *shamana* as well as *mridushodhana*. *Avipathi choorna*[11] was given for *mridushodana* and as *pitha shamana*. *Manjishtadi kashayam*[12] which is potent enough for curing 18 types of *kushta* and also has *raktashodhana* properties was given for the *sheshadosha shamana*.

Mahathiktakam ghritha[13] was given for external application considering its efficacy in dermatological disorders. *Mahathiktaka ghritha* was later continued as *vicharana snehapana* for preventing recurrence.

CONCLUSION

This case report proves the effectivity of Ayurveda in treating such conditions. The *amapakwa avastha* of the disease should be analysed before planning the treatment protocol. We should also assess the requirement of relevant *shodhana* treatment modalities according to the *dosha avashta*, *roga avastha* as well as the *rogi avastha*.

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