Case Report

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Ayurvedic Management of Tinea Cruris

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Abstract

Tinea infections are fungal infections of the skin which are the most common skin conditions worldwide. 'Tinea cruris' otherwise known as 'Jock itch' is an infection in the groin, perineal and peri-anal area. It can present unilaterally or bilaterally with a red, raised and active border. *Trichophyton rubrum* and *Epidermophyton floccosum* are the most common organisms causing 'Tinea cruris'. The present report deals with a case of 'Tinea cruris' diagnosed as '*Mandala kushta*' according to *Ayurveda*. Efficacy of treatment was assessed on the scoring of 'Dermatology life quality index (DLQI)' and. Total two assessments were done, before treatment and after follow-up. *Virechana karma* is done followed by internal *Ayurvedic* medicines with dietary restrictions along with life style changes. In present case, the patient got 'clinical cure' with good improvement in itching, dryness/scaling, redness/inflammation and also in discomfort after *Virechana*. *Ayurvedic panchakarma* treatment followed by internal medicines seems to prevent recurrence / relapse with high cure rate, short duration of action and without any adverse effects.

Keywords: Tinea Cruris; *Ayurveda*; DLQI; Dermatology Life Quality Index; *Mandala Kushta*; Fungal Infection.

Introduction

Tinea infections are fungal infections of the skin which are the most common skin conditions worldwide. They are caused by dermatophytes and often severe as well as recurrent. 'Tinea cruris' otherwise known as 'Jock itch' is an infection in the groin, perineal and peri-anal area. It can present unilaterally or bilaterally with a red, raised and active border. *Trichophyton rubrum* and *Epidermophyton floccosum* are the most common organisms causing 'Tinea cruris' [1]. Climate in India is conducive to the acquisition and maintenance of mycotic infections. Dermatophyte infection is more common in adults aged between 16-45 years [2]. In 'Tinea cruris' scaling is variable and vesiculation is rare. It usually occurs in adults wearing clothes made up of synthetic material which tend to accumulate heat and humidity in the skin [3].

Recognition and proper treatment of dermatophyte infections reduces morbidity, discomfort and lessens the possibility of transmission. Several factors should be considered by the physician for best treatment approach such as, anatomical location of the infection, safety, efficacy of treatment, cost of the treatment and likelihood that the patient will comply with treatment [4]. Topical anti fungal drugs, oral anti fungal drugs and topical systemic corticosteroids are used to treat 'Tinea cruris' at various stages of 'Tinea cruris' infection. There was no sufficient data regarding the efficacy of *Ayurveda* in the management of 'Tinea cruris'. The present case report deals with a patient of 'Tinea cruris', not getting satisfactory relief (with recurrence / relapse) with modern medicines opt *Ayurvedic* treatment for sustained relief. 'Tinea cruris' can be correlated with '*Mandala kushta*' [5]. Written informed consent was obtained from the patient for the publication of present case report.

Case Description

A 20 year old male patient came to our care (23.06.2016) with the complaints of, lesions which

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are painful and itchy located at groin area, thigh skin folds, upper thigh, peri-anal area and at perineum. The lesions were slightly elevated / raised patches with sharp borders, dry/scaly in nature and expanding / spreading with redness / inflammation. The lesions were bilateral and spread out in a circle without oozing / blistering (Figures 1-4). Patient has been suffering with skin lesions since 4 years (2012). Patient was diagnosed as having 'Tinea cruris' and took allopathic treatment but didn't get sustained relief. Patient has taken oral and topical anti fungal agents and also used topical cortico-steroids. The condition was insidious in onset and gradually progressive with remissions and relapses.

At the time of examination, patient had severe itching, burning sensation at the site of lesions situated at groins and thighs. The lesions were bilaterally symmetrical and having sharp, active borders. There was no vesiculation or oozing. The lesions were dry and expanding in nature (Figures 1-4). The lesions were causing sever irritation, itching, pain, difficulty in walking or doing routine activities. Genitals were not involved with lesions. The condition was progressive and causing concerns regarding sexual life of the patient. Routine hematological, biochemical investigations, renal function test and liver function tests were within normal limits (23.06.2016). Mycological testing (by microscopy / by culture) is not done.

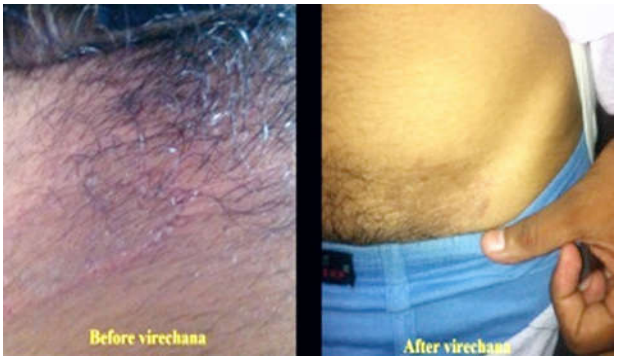

Fig. 1: Skin lesions at left inguinal region

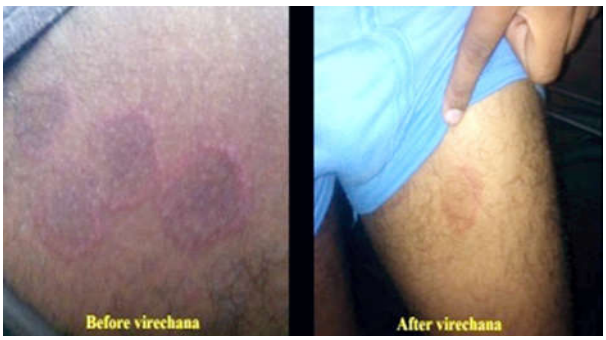

Fig. 2: Skin lesions at left thigh region

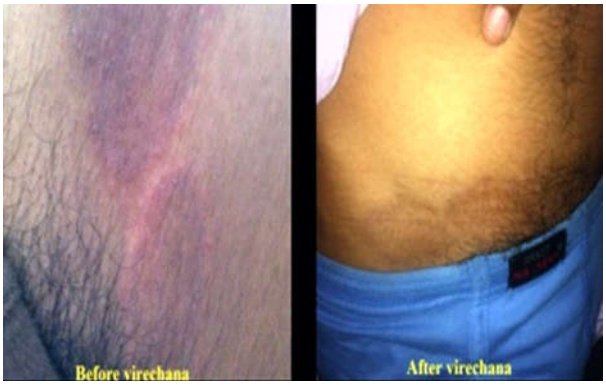

Fig. 3: Skin lesions at right inguinal region

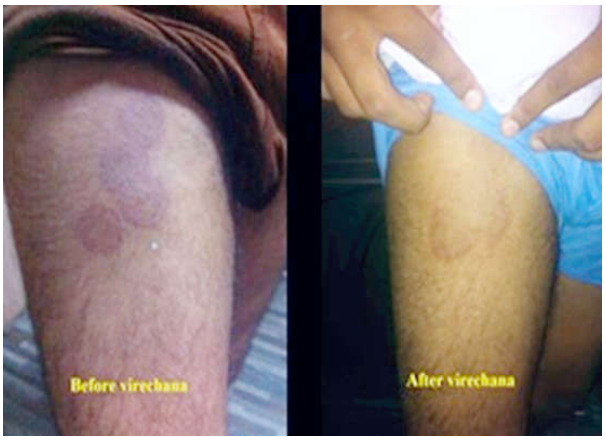

Fig. 4: Skin lesions at right thigh region

Diagnosis, Assessment & Treatment

Patient was diagnosed as having 'Tinea cruris' and according to *Ayurveda*, diagnosis of *'Mandala Kushta'* [6] is made. Diagnosis of 'Tinea cruris' is made clinically based on history and clinical findings.

To measure the efficacy of treatment, 'Dermatology Life Quality Index (DLQI)' scale was used; Total two assessments were carried out before starting *Ayurvedic* treatment and after completion of follow-up based on the scoring of DLQI. The aim of DLQI is to measure how much the skin problem has affected patient's life over the last week. DLQI questionnaire is designed for use in adults, i.e. patients over the age of 16. DLQI consist ten questions, scored on a scale from 0 to 3, with a total possible score ranging from 0 to 30. Higher scores indicate increased disability (more quality of life is impaired) [7].

The main objectives of the treatment were, to provide relief in signs & symptoms of 'Tinea cruris' and also to prevent recurrences. Strict diet plan along with life style changes were implemented during hospital stay and also after discharge. *Virechana karma* (therapeutic purgation) is done followed by *Ayurvedic* internal medicines (Table 1).

Table 1: Intervention

	Panchakarma* intervention – *Virechana Karma
24.06.2016 to 26.06.2016	***Deepana & Paachana*:** *1. Chitrakadi vati* – 1gm thrice a day, after food with water *2. Takrapaana* (butter milk) – 600 ml per day (in three or four divided doses)
27.06.2016 to 01.07.2014	*Snehapana* with cow's ghee – 30 ml, 60 ml, 90 ml, 140 ml and 180 ml respectively for five days on empty stomach with hot water
02.07.2016 to 05.07.2016	1. *Sarvanga abhyanga* with *Nalpamaradi kera tailam* 2. *Bashpa sweda* (steam in steam chamber)
05.07.2014 06.07.2016 to 10.07.2016	*Virechana* with *Hingu triguna tailam* – 50 ml *Samsarjana krama* with *Mudga yusha* (green gram soup), *Yavagu* (gruel);
	Shamana Chikitsa
11.07.2016 to 10.08.2016	1. *Arogyavardhini vati* – 500 mg, twice a day after food; 2. *Patola katurohinyadi kashaya* - 80 ml, twice a day before food; 3. *Darunaka tailam* for external application over affected area;

Discussion

In *Ayurveda*, all skin diseases have been discussed under the broad category of *Kushta*. *Kushta* is classified in to 7 *Maha kushta* (major skin disease) and 11 *Kshudra kushta* (minor skin disease) for the purpose of diagnosis as well as treatment. *Mandala kushta* is a *kapha* predominant disease and it belongs to *Maha kushta* category. *Mandala kushta* closely resembles with mycotic infections. *Mandala kushta* is characterized by red / inflammatory sport appearing first which later developing edematory edges. These fixed circular raised patches / skin lesions connected with each other are known as *Mandala kushta*. It is associated with severe itching and sometimes oozing and worms. *Mandala kushta* spreads slowly as it is *kaphaja* in nature [5]. The present case was diagnosed as '*Mandala kushta*' based on the above clinical signs and symptoms.

The *Ayurvedic* line of treatment for '*Mandala kushta*' consists of, *Shodhana* (cleansing) and *Shamana* (pacificatory). Among *Shodhana*, *Vamana* (therapeutic emesis) is considered best as '*Mandala kushta*' is a *kapha* predominant condition. *Shamana chikitsa* includes various internal medicines like, *kashaya's* (decoctions), *gutika's* (tablets), *taila's* (medicated oils) etc; which is prescribed based on the condition of the patient and also stage of illness [5]. In present case, the patient was '*Vamana ayogya*' (not fit for *Vamana*) due to '*dushchardita*' (difficulty to induce vomiting) nature, season and also patient's constitution (*vata prakriti*); based on these factors, instead of *Vamana*, *Virechana* is done even though *Vamana* is the treatment of choice in '*Mandala kushta*' [8].

In present case, *Virechana* karma has been planned and it started with *Deepana* (stomachic) and *Paachana* (digestants) drugs like, *Chitrakadi vati* and *Takra paana* (drinking of butter milk) for the period of 3 days followed by *snehapana* (internal administration of pure cow's *ghee*). Patient has received *snehapana* for 5 days with gradually increasing doses (30 ml on day-1, 60 ml on day-2, 90 ml on day-3, 140 ml on day-4 and 180 ml on day-5). After attaining *samyak snigdha lakshana's* (signs and symptoms to assess proper *snehapana*), patient has received *Sarvanga abhyanga* (full body massage) with '*Nalpamaradi kera tailam*' and *bashpa sweda* (sudation in steam chamber) for the period of 3 days before the day of *Virechana*. For *Virechana* purpose, 50 ml of '*Hingu triguna tailam*' is prescribed at once on early morning on empty stomach. Patient got 20 *vega's* (loose motions) without any discomfort. After *Virechana*, *Samsarjana krama* (post therapeutic diet regimen) was observed for the period of 5 days (Table 1).

There was good improvement noticed immediately after *Virechana* in signs & symptoms. Itching, dryness / scaling, redness / inflammation and pain during walking / working got reduced after *Virechana*. The lesions were reduced in size and also the intensity. Before starting treatment (23.06.2016), total score on DLQI was 20 (the skin condition causing very large effect on patient's life), which is reduced to '5' (small effect on patient's life) during follow up assessment (10.08.2016). *Arogyavardhini vati, Patola katurohinyadi kashayam* and *Darunaka tailam* (for local application on affected areas) were prescribed at the time of discharge (10.07.2016) (Table 1). Along with internal medication, *pathya & apathya* (diet protocol suitable to the patient and disease), *nidana parivarjana* (avoiding disease provoking factors such as wearing synthetic, tight clothing) and personal hygiene were advised to the patient to prevent recurrence and also transmission. No adverse effects were reported by the patient.

The patient got 'clinical cure' which can be defined as the resolution of clinical signs and symptoms suggestive of dermatophyte infection. In present case,

mycological testing is not done, so 'mycological cure' (defined as the follow-up reporting of negative mycological testing i.e., negative microscopic findings/absence of any growth of the dermatophytes in culture or both) can't be claimed and which is the major drawback of present study. The patient got clinically meaningful improvement by *Virechana karma* followed by internal medicines along with dietary restrictions and life style changes. *Ayurvedic panchakarma* (five major cleansing procedures) treatment followed by internal medicines seems to prevent recurrence / relapse with high cure rate, short duration of action and without any adverse effects.

Conclusion

The *Ayurvedic* diagnosis of '*Mandala kushta*' is made for 'Tinea cruris' in present case. *Virechana karma* is very effective in providing relief in the signs & symptoms of 'Tinea cruris'. *Ayurvedic panchakarma* treatment followed by internal medicines seems to prevent recurrence / relapse with high cure rate, short duration of action and without any adverse effects. Present study findings can't be generalized and further long term follow up studies with large sample are required to substantiate.

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