

A CASE STUDY ON SUCCESSFUL AYURVEDIC MANAGEMENT OF DADRU KUSHTHA W.S.R. TO TINEA CORPORIS

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Abstract

Background: Ayurveda is science of “whole health & healing.” Ayurveda's goal is to protect healthy people's health and treat disease-related problems. Skin diseases are now fairly prevalent. In Ayurveda all the skin diseases are included in *kushtha*, which further categories into *mahakushtha* & *kshudrakushtha*. As per modern perspective disease *Dadru* comes under ‘superficial fungal infections of the skin’ the most common dermatological manifestation. Tinea corporis is most commonly caused by dermatophytes belonging to one of the three genera namely, Trichophyton, Microsporum and Epidermophyton. *Dadru* considered in the both groups of *Kushtha* (*Kshudra* & *Maha*) as per *Charaka Samhita* & *Shushruta Samhita* respectively. Though both *Kushthas* are curable but very tenacious in nature, hence they should be treated for moderate duration, otherwise relapses are very common. By treating the condition with Ayurveda's treatment therapy produces long term outcomes. **Case:** A 37-year-old male patient approached to Dravyaguna OPD (NIA, Jaipur) in October 2024 with complaints of reddish lesions with raised borders and itching over the back region for 15 days having disturbed sleep. After examination he was advised for *Shamana chikitsa* (palliative care). **Results:** The Gradation Score was 12 before treatment, after 30 days it was 0. The patient in this case study experienced relief in the symptoms. **Conclusions:** The patient obtained better results by *Shamana chikitsa*.

Keywords: *Dadru kushta*, *Kushta*, *Shamana*, Skin disorders, Tinea corporis.

Introduction

Ayurveda is science of “whole health & healing.” Ayurveda's goal is to protect healthy people's health and treat disease-related problems. Skin diseases are now fairly prevalent. Though skin diseases are common at any age of the individual but they are particularly frequent in the elderly. Normal 10-15% of the General Practitioners work is with skin disorder (Roxburgh's Common Skin disease). In Ayurveda all the skin diseases are included in *kushtha*, which further categories into *mahakushtha* & *kshudrakushtha*. Dadru considered in the both groups of *Kushtha* (*Kshudra* & *Maha*) as per *Charaka Samhita* & *Shushruta Samhita* respectively. Though both *Kushthas* are curable but very tenacious in nature, hence they should be treated for moderate duration, otherwise relapses are very common. Ayurvedic classics have considered each type of *Kushtha* to be a *Tridoshaja* manifestation. None the less their *Doshik* identity can be established on the basis of dominance of *Dosha* in the *samprapti*. Dadru is one of the *kshudrakushtha*^[1] according to *charak* & *mahakushtha*^[2] according to *sushrut*. It has *pitta kapha* predominance present with circular patches with raised margin i.e. *mandal*, redness around lesion i.e. *raga*, intense itching over & around patches, burning sensation i.e. *daha*, eruption i.e. *pidika* anywhere in body. As per modern

perspective disease *Dadru* comes under ‘superficial fungal infections of the skin’ the most common dermatological manifestation. Tinea corporis, also known as ‘ringworm’, is a superficial dermatophyte infection of the skin, other than on the hands (*tinea manuum*), feet (*tinea pedis*), scalp (*tinea capitis*), bearded areas (*tinea barbae*), face (*tinea faciei*), groin (*tinea cruris*) and nails (*onychomycosis* or *tinea unguium*).^[3] Tinea corporis is most commonly- caused by dermatophytes belonging to one of the three genera, namely, *Trichophyton* (which causes infections on skin, hair, and nails), *Microsporum* (which causes infections on skin and hair) and *Epidermophyton* (which causes infections on skin and nails). Ringworm (*Tinea corporis*) of the body usually present as a slightly itchy, asymmetrical, scaly, raised edge which has similar features as *Dadru kushtha*. The lesions are usually circinate with an active border consisting of vesicle and scaling. Dermatophytosis has been named with different clinical terms like *tinea corporis*, *tinea cruris*, *tinea unguium* etc depending on the body part involved. Common areas affected are the groin, lower part of the trunk, buttocks and underarm, but any part of the body including face, hands and feet can be affected. Symptoms of fungal infection include itching, burning, scaling, redness and gradual spread to the

surrounding and distant part of the body.^[4] It is treated in modern medicine using topical and systemic antifungal medications, as well as corticosteroids. *Shodhan*, *Shaman*, and *Bahirparimarjan* (topical) *Chikitsa* are *Ayurvedic* remedies for *Dadru*.^[5]

Prevalence: Globally, the prevalence of superficial fungal skin infection is 20–25%.^[6] Dermatophytes are the most common agents. In general population, tinea corporis and tinea cruris infections are very common. Tinea corporis occurs globally, and is relatively frequent, but its higher incidences are seen in tropics and subtropics. In India, tinea corporis is accountable for up to 88% of cases. Infection can occur from direct or indirect contact with skin and scalp lesions of infected persons or animals.^[7] In India, 1-12 cases out of every 1,000 patients are found to be affected with fungal infection.^[8]

Case report: A 37-year man working as a farmer, came with complaints of reddish lesions with raised borders and itching over back (upper) region for 15 days and having disturbed sleep because of itching. The patient was symptomless before 15 days, after that he started complaining of multiple reddish lesions-with raised borders and itching over back region, gradually it increased and spread over the whole back region. The patient approached

to *Dravyaguna* OPD, NIA, Jaipur for *Ayurvedic* management. After examination he was advised for *Shamana chikitsa* (palliative care). Patient had no significant past history. On examination vitals like blood pressure, temperature, heart rate and respiration rate were within normal limits.

History of present illness: Before 15 days, the patient was OK, but then he acquired round and reddish spots over back region, accompanied by acute itching. He had received Allopathic treatment from a local practitioner for this but had not received satisfying results, so he came to NIA Hospital for care. There was no history of diabetes mellitus/insipidus, hypertension, bronchial asthma or hypothyroidism. There was also no related family history. Except for the patient's constipation, *Ashthavidh pariksha* was within normal limits. The patient was of madhyam akruti/medium body build and local examination revealed 3-4 circular erythematous, well-demarcated areas with vesicular eruption over back region. There is no drainage from the lesion. The vital values were normal. *Dadru* (Tinea corporis) was identified based on clinical characteristics.

Personal history: *Ahar* (diet) is mostly mixed (veg-non veg), *nidra* (sleep) is disturbed due to itching, patient has no bad habits, and occupation of the patient is farmer.

Table: 1 *Ashtavidha Pariksha*

1.	<i>Nadi</i> /pulse	: 75/min
2.	<i>Mala</i> / bowel movement	: <i>Saam</i> /bowel with undigested toxins
3.	<i>Mutra</i> /micturition	: <i>Samyak</i> /proper
4.	<i>Jivha</i> /tongue	: <i>Saam</i> /coated
5.	<i>Shabda</i> /speech	: <i>Spashta</i> /clear
6.	<i>Sparsha</i> /temperature on touch	: <i>Khara</i> /rough
7.	<i>Druka</i> /eyes	: <i>Prakruta</i> /normal with no pallor or icterus
8.	<i>Akruti</i> /body build	: <i>Madhyam</i> /average

Table: 2 *Agnibaladi Pariksha*

• <i>Agni</i> (digestive fire) = <i>Agnimandya</i> /poor
• <i>Bala</i> /strength = <i>Madhyam</i> /average
• <i>Raktadaaba</i> (Blood pressure) = 130/80 mm Hg

Table: 3 *Skin examination*

Inspection	Palpation
• Size shape – annular lesions	• Moisture – dryness
• Color – blackish lesions	• Temperature – warmth of the skin
• Lesions – scaly patch	• Texture – rough

Laboratory Investigation: Blood routine CBC – Normal

Table: 4 *Samprapti Ghataka*^[9]

<i>Dosha</i> /bodily humors	<i>Tridosha</i> /dominance of three bodily humors
<i>Dushya</i> /elements affected by bodily humors	<i>twaka, rakta, mamsa, lasika</i>
<i>Ama</i> (undigested food particle)	<i>Jatharagnijanya Ama</i> /digestive fire related undigested toxins
<i>Agni</i> (digestive fire)	<i>Jatharagni</i>
<i>Srotas</i> (inner transport system of the body)	<i>Rasavaha, Raktavaha</i>
<i>Srotodushti prakara</i> / type of imbalance in inner transport system	<i>Sanga</i> /obstruction
<i>Rogmarga</i> (path of disease)	<i>Bahya</i> /external

<i>Udhbhavasthana</i> (Manifestation site of location)	<i>Amashaya</i> /stomach
<i>Vyaktasthana</i>	<i>twacha</i> /skin
<i>Rogaswabhava</i>	<i>chirakari</i> /long-term
<i>Sadhyasadhyaata</i>	<i>Sadhya</i> /curable

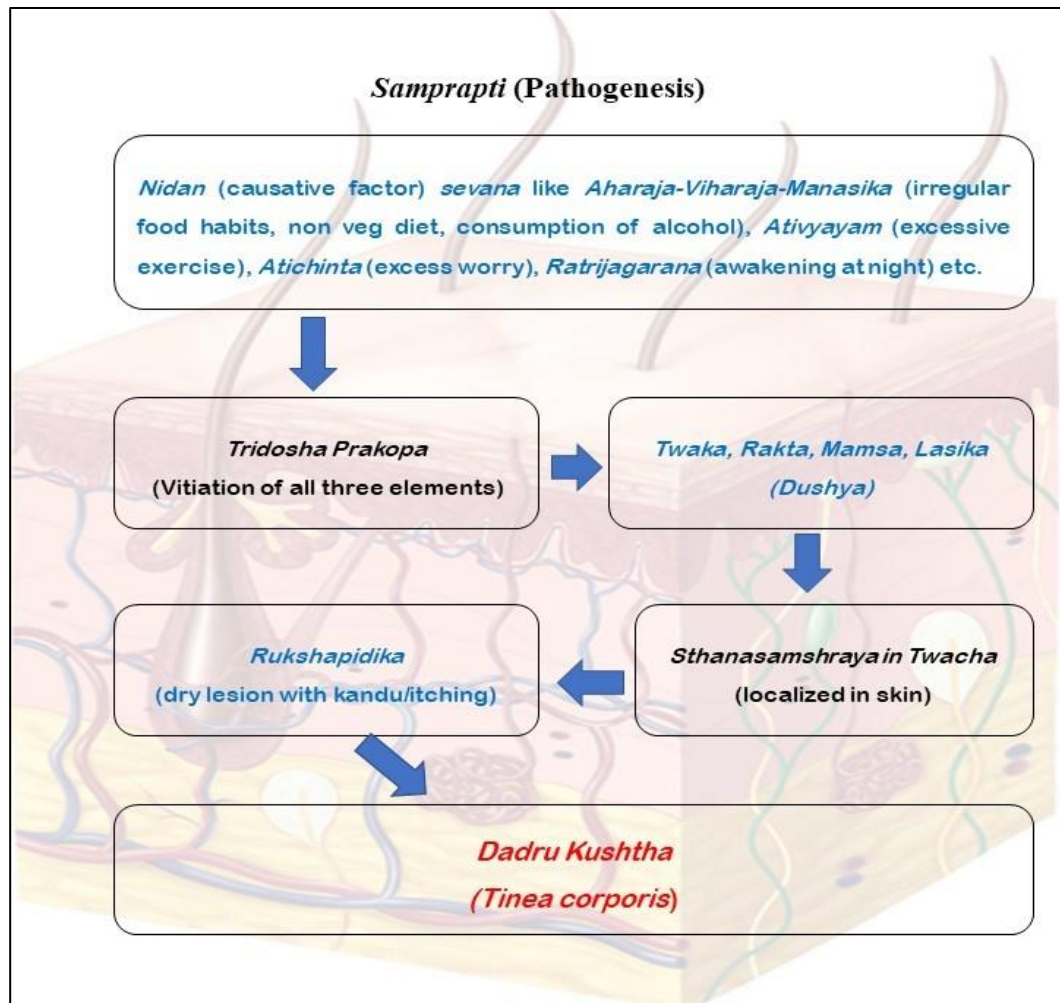


Image 1: *Samprapti* of dadru Kushtha

Methods: The patient came to the NIA Dravyaguna OPD having the complaints of reddish patches. Written informed consent was taken from the patient before administration of conservative treatment and his detailed information was kept confidential.

Treatment plan given Shamana chikitsa (Pacifying treatment): for 15 days

comprising *Arogyavardhini vati*,^[10] *Panchatikta ghrita*,^[11] *Khadirarishta*^[12] and *Sarivadyasava*^[13] which is to be given orally and *Kasmarda patra churna lepa*^[14] with lukewarm water for local application (Table 1). After 15 days patient was called for follow up. All medicines were continued for next 15 days.

Table 5. Showing Therapeutic intervention

S.no.	Drug	Dose	Root of Administration
1.	<i>Arogyavardhini vati</i>	500 mg, twice a day, with lukewarm water before meal	Orally
2.	<i>Panchatikta ghrita</i>	5 ml, twice a day with lukewarm water after meal	Orally
3.	<i>Khadirarishta</i>	20 ml, with equal quantity of lukewarm water, twice a day after meal	Orally
4.	<i>Sarivadyasava</i>	20 ml, with equal quantity of lukewarm water, twice a day after meal	Orally
6.	<i>Kasmardapatra churna lepa</i>	Twice a day, As per affected area	External application

Pathya-Apathya

Table 6 & 7: Showing pathya-apathya

<i>Pathya Ahara</i>	<i>Apathya Ahara</i>
<i>Laghu, Ruksha, Tikta Rasa Pradhana</i>	<i>Tila, Virudhahara (Milk and Matsaya), Navanna, Pishtanna, Vidahi,</i>
<i>Moong Masoor Dal Wheat and Yava, Purana Ghritha, Gomutra, Dadima, Nimba, Patola, Karela Shak etc.</i>	<i>Abhishyandi, Madya, Mulanki, Dadhi Urada, Gudda etc.</i>

<i>Pathya Vihara</i>	<i>Apathya Vihara</i>
<i>Laghu Vyayam, Snana (Sidharthaka Snana) etc.</i>	<i>Divaswapna, Vega Dharna, Ati Vyayam, Ati Sweda etc.</i>

Precautions advised to be taken:

- Avoid sharing clothing, sports equipment, towels or sheets.
- After suspected exposure to ringworm wash clothes in hot water.
- Pets with bald spots, avoid touching them as they are often carriers of the fungus.
- Daily during an infection wash bedding and clothes to help disinfect your surroundings.
- To avoid over sweating wear loose clothes in affected areas
- Avoid the exposure of humid environment
- Treating all infected areas to avoid spreading to other parts of body.

Assessment criteria: Patient evaluation was based on improvements in subjective criteria such as *Kandu* (Itching), *Raga*

(Erythema), *Utsanna mandala* (Elevated Circular Skin, Lesion) and *Pidika* (Eruption), as well as images of the lesion before, during and after therapy. Thus, following therapy, there was total improvement in all indices. The same can be observed in the photos below, which were taken before, during and after therapy.

Observation: After 15 days treatment, symptoms subsided in patient but there were still some annular lesions present. Hence *Shamana chikitsa* was continued. After completion of *Shamana chikitsa*, the patient was assessed as per the gradation of *Lakshana* of *Dadru* like *Utsanna Mandala*, *Raga*, *Pidikas* and *Kandu* as shown in Table 3 which became grade 0 after 30 days of treatment as given in Table 4. Also, the patient was symptomatically improved (Figure 2).



Image 2: Before, during and after treatment image of patient diagnosed with *Dadru - Tinea corporis*

Table 8: Showing gradations

Sr.	Clinical features	Grade 0	Grade 1	Grade 2	Grade 3
1.	<i>Utsanna mandala</i>	Absent	Mild elevated lesion	Moderate elevated lesion	Severe elevated lesion
2.	<i>Raga</i>	Normal skin colour	Faint Normal	Blanching + Red Colour	Red Colour
3.	<i>Pidikas</i>	Absent	1-3 eruptions	4-6 eruptions	>6 eruptions
4.	<i>Kandu</i>	Absent	Mild or occasional itching	Moderate or frequent itching	Severe itching

Table 9: Evaluation performed before, during and after therapy

Sr.	Clinical features	Day 0	Day 15	Day 30
1.	<i>Utsanna mandala</i>	3	2	0
2.	<i>Raga</i>	3	1	0
3.	<i>Pidikas</i>	3	2	0
4.	<i>Kandu</i>	3	2	0

Results: The treatment of *dadru Kushtha* through Ayurvedic approach is incredible and result are significant changes in sign and symptoms during follow-up (after 15th day) are mentioned in Table 9.

Discussion: In the context of *Ayurveda*, *kushtha* is the term used to describe many types of skin illnesses, which encompass all main skin manifestations such as *Tinea*. The symptomatic manifestation of *Tinea corporis*

resembles that of “*Dadru kushtha*” mentioned in *Ayurvedic Samhita*. This skin condition adversely affects one’s own quality of life. *Ayurveda* offers a viable medication for *Tinea corporis*.

Mode of action of *Arogyavardhini vati*: The formulation is a magical remedy for treating various skin infections. The anti-inflammatory properties of this *vati* is extremely beneficial in treating fungal

infections. Being loaded with antioxidants, *Arogyavardhini vati* scavenges free radicals from the body and its antipruritic nature alleviates itching sensation caused due to allergic conditions like psoriasis, fungal infections, eczema, acne, sunburn etc. It is *Kapha-Pitta Shamaka*, *Shothahara* and *Rakta shudhhikara*. It is very useful in various skin diseases like *Kushtha*, *Mukhdushika* etc.

Mode of action of *Panchatikta ghrita*:

Panchatikta Ghrita is recommended in *Kushtha chikitsa* in *samhitas*. *Vata-Pitta shamaka* and *Tvachya* (improves complexion) properties of *Panchatikta Ghrita* helps to alleviate *Kushtha* (skin disease).

Mode of action of *Khadirarishta*: *Khadira* is mentioned under *Kushthaghna Gana* and also as the best drug for alleviating *Kushtha*. Most of the ingredients in *Khadirarishta* are *Tikta*, *Katu* (pungent) *rasa*, *Katu vipak* pacify the *Kapha* along with *Pitta*. It has antioxidant properties. Its antifungal activity against dermatophytosis is also documented in studies.

Mode of action of *Sarivadyasava*: It contains *Sariva*, *Nagarmotha*, *Lodhra*, *Shati*, *Ananta*, *Pippali* etc. Vitiated *Pitta- Kapha Dosh* in *Dadru kushtha* further causes the vitiation of the *Rakta Dhatu* due to *Ashrayashrayee bhava* (the relation between the regulatory function of the body and tissue element) of *Pitta* and *Rakta*. The majority of ingredients of *Sarivadyasava* are *Tikta* (bitter), *Kashaya* (astringent) *Rasa*, *Shita*

virya (cold potency) and *Katu vipaka*, which pacify the vitiated *Pitta* and ultimately pacify vitiated *Rakta*. Having properties such as *Sheeta virya* (cold potency), *Dipanam* (digestion and metabolism) and *Pachanam* (enhancing digestion) reduces *Daha*, *Raga* by pacifying *Pitta*. Vitiated blood also gets pacified due to the *Raktashodhaka* (blood purifier) property of *Sariva*, *Lodhra* etc.

Mode of action of *Kasmarda patra churna*

***lepa*:** *Kasmarda* (*Cassia occidentalis* L.) has antifungal and antimicrobial characteristics, as well as *Raktashodhaka* (blood purification) and *Vranaropaka* (wound healing) properties. *Bahiparimarjana Chikitsa* is best palliative approach for treating such disorders in terms of fast response due to direct contact. *Dadru* is *Pitta-Kapha* dominance according to *Acharya Charak* and *Vagbhata* and *Kaphapradhan* according to *Acharya Sushruta*. *Rasa* and *Rakta* are both involved in the *samprapti*. *Kushta* is characterised in *Samhita* by repeated *Shodhana* and *Shamana* medications with *Kushtaghna*, *Krumighna* and *Kandughna* characteristics. *Pitta* and *Kapha* are the most vitiated *Doshas* with *Rasa* and *Rakta Dhatu*, while *Lasika* and *Tvak* are *dushyas* in *Dadru*.^[15] ‘*Nidana Parivarjana*’ is regarded as the initial stage in *Dadru* management. Untidiness of the body, sharing cloths (towels) and so on should be avoided depending on *Nidana*’s involvement.^[16] *Dadru*, in both its acute and chronic forms, causes physical and emotional

distress in humans, as itching and other symptoms persist throughout the day. *Ayurvedic* medicine is a medical discipline that provides lasting cures by employing internal and external medicine. The qualities of *Kushthaghna*, *Kandughna* and *Krimighna* might aid in the safe and successful treatment of *Dadru* patients.^[17] *Dadru kushtha* is a very infectious *Kaphapitta Pradhana Tridoshaja Aupasargika Roga*. *Dadru*, while treatable, has a stubborn character. If the course of treatment is not carefully managed, remission and relapses are common; thus, treatment should be started as soon as feasible. *Ayurvedic* therapy focuses on avoiding etiological variables (*Nidana Parivarjanam*) and breaking down pathology (*Samprapti Vighatana*), which leads to *Dhatu Samya*.^[18]

Conclusion: Tinea corporis is associated with *Dadru kushtha* based on signs and symptoms.

Chikitsa is planned in *Kushtharoga*, depending on the severity of *Roga*. From this case study it can be concluded that use of *Chikitsa upakramas* described in *Ayurveda* like *Shamana* (formulations like *Arogyavardhini vati*, *Panchtikta ghrita*, *Khadirarishta* and *Sarivadyasava*) and *Bahiparimarjana chikitsa* (*lepa* of *Kasmarda patra churna*) are effective in the management of *Dadru kushtha*. The adopted treatment method is safe and cost-effective and has produced a significant outcome when used for a long time. This suggests that *Ayurvedic* treatment is useful in managing delayed hypersensitivity infection and opens the door to more research in this area.

Consent: Written informed consent for publication of their clinical details and/or clinical images was obtained from the patient.

References:

1. Charak samhita by vaidya yadavji trikamaji, chaukhamba Prakashan, edition 2013 chikitsasthan chapter 7, verse no 23, page no 451.
2. Sushrut samhita by Acharya Priyavat sharma, Hindi vyakhyakar – vd Anantram sharma - chaukhamba prakashan 2018 volume 1 nidansthan chapter 5 verse no 5, page no 494.
3. Hsu S, Le EH, Khoshevis MR. Differential diagnosis of annular lesions. Am Fam Physician. 2001;64(2):289–296. [PubMed] [Google Scholar] [Ref list]
4. Seladi-Schulman, J. (2020, January 07). Fungal skin infection: Types, treatment, prevention. Retrieved March 27, 2021, from <https://www.healthline.com/health/fungal-skin-infection#most-common-infections>.
5. Gupta R: Textbook of Dermatology. 11th chapter – Fungal infections – Tinea cruris. First edition. New Delhi: Jaypee brothers; 2002; pp. 67–72. 81-8061-034-9.

6. Gebreabiezgi Teklebirhan and Adane Bitew. Prevalence of Dermatophytic Infection and the Spectrum of Dermatophytes in Patients Attending a Tertiary Hospital in Addis Ababa, Ethiopia. Hindawi Publishing Corporation. International Journal of Microbiology. 2015; 2015:1-5.
7. Brigida S and Muthiah NS. Prevalence of Tinea Corporis and Tinea Cruris in Outpatient Department of Dermatology Unit of a Tertiary Care Hospital. Journal of Pharmacology and Clinical Research. 2017;3(3):001- 003.
8. Singh, J. (2014, January 09). Alarming rise in fungal INFECTION CASES: PGIMER STUDY. Retrieved March 27, 2021, from <https://www.downtoearth.org.in/news/alarming-rise-in-fungal-infection-cases-pgimer-study--43222>.
9. Vidyadhar S, Dutt TR: Agnivesha, Charak Samhita, Chikitsasthan 7/9, Delhi, Chaukambha Sanskrit Pratisthan.2019; p. 182.
10. Ambikadatta shastri. Rasaratna Samuchchya. 9th edition. Chapter no-20. Verse no-87. Varanasi: Chaukhamba
11. Sanskrit Publisher;1994. p. 400.
12. Thakre PP, Deshmukh S, Ade V: A Case Study on Plaque Psoriasis with Ayurvedic Management. Int. J. Ayurvedic Med. 2020; 11(2): 342–345.
13. Shinde R. Bhangale K Khadirarishta: A medical review Int J Res—Granthaalayah. 2017; 5:72–5
14. Mishra S. Pramehapidakadhikar verse 22–23 Bhaishajya Ratnavali. 2021 Varanasi Chaukhambha Prakashan:722
15. Vedpriya Arya, Sanjay Yadav, Sandeep Kumar, JP Yadav, Antimicrobial Activity of Cassia occidentalis L (Leaf) against various Human Pathogenic Microbes, Life Sciences and Medicine Research, Volume 2010: LSMR-9.
16. Chaudhari VM, Kokate KK: Management of Dadru Kushtha with Ayurveda Intervention-A Case Study. J. Ayurveda Integr. Med. 2020 Jun 30; 5(03): 164–171.
17. Sharma UK: Role of Ayurveda In Management of Dadru Kushtha (Fungal Infection-Tinea): A Case Study.
18. Kumar A, Gwala BR, Meena HM, et al.: Review of Dadru Kushtha wsr to Fungal Dermatophytosis: A Conceptual Study.
19. Lunawat SR, Sabu NR: Ayurvedic Approach in Fungal Infections of Skin. WJPR. 2016; 5(4): 1757– 1762.