A Case Study on Ayurveda Management of Shwitra

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Authors’ contributions

This work was carried out in collaboration between both authors. Author SS designed the study, performed the statistical analysis wrote the protocol and wrote the first draft of the manuscript. Author SR managed the analyses of the study. Both authors read and approved the final manuscript.

Article Information

DOI: 10.9734/JPRI/2021/v33i37B32025

ABSTRACT

Shwitra is a condition characterised by white patches on the body. It’s possible that it’s linked to Vitiligo in modern science. In Ayurveda, all skin illnesses are classified as Kustha Roga. It is caused by Tridosha vitiation. It is an autoimmune disease that can be linked to other autoimmune diseases such as diabetes mellitus, pernicious anaemia, and Addison disease. Leukoderma affects one percent of the population. For the patient, this sickness becomes a source of social disgrace as well as a financial hardship.

Aim: To Evaluate The Efficacy of Ayurvedic Treatment In Shwitra.

Study Design: Simple Single Arm Study

Place: Parul Ayurved Hospital, Parul University,Limda, Vadodara, Gujarat.

Duration of study: 2 Months

Methodology: Kosthashuddhi With Internal Medication And Rasaaushidhi For External Medication. Which provides a fresh hope for providing efficient and safe treatment. It was in much better shape than before.
Keywords: Shwitra; kustha roga; leukoderma; virechana karma; rasausadhī.

1. INTRODUCTION

Our body's largest organ, the skin, forms the outermost covering of our body. It is a complicated organ that interacts physiologically and pathologically with the majority of other organs. UV protection is provided by the pigment melanin. Our body's largest organ is our skin. The condition of one's skin, encompassing physical and psychological health, determines one's beauty and attraction. Shwitra is a skin illness that has a significant negative impact on human existence. The Shwitra is a group of symptoms that appear as white spots on the skin and generate a cosmetic imbalance in the body, which leads to a number of socialised psychological stigmas in the patient's life.

White, red, or copper red coloured spots on the skin, loss of skin lustre, loss and colouring of hair, roughness, dryness, itching, and burning feeling of the patches are all signs and symptoms of Shwitra. It was linked to vitiligo and leukoderma, according to modern research.

Leukoderma is defined as skin depigmentation caused by the destruction of melanocytes in the body, which can be localised or full. Leukoderma looks a lot like vitiligo, which is characterised by white patches on the skin. Thyroid disease, diabetes mellitus, addisons disease, traumatic occurrences, eczema, and psoriasis are all examples of autoimmune conditions that can cause leukoderma. Leukoderma is not a painful, harmful, or contagious condition, but it has a significant psychological impact on the individual who suffers from it. The size of leukoderma patches varies.[1-2]

It is a psycho-emotional disease reflected in the skin as pigmentation problem. In todays world everyone is beauty conscious. White patches that appear on the skin exhibit beauty mainly in females. It degrades the moral of a person with regards to beauty and also leads to lack in confidence.

The following case was treated for two months with internal medication and rasausadhā, with excellent results as evidenced by inspection and photographs.

The results of this clinical trial will shed more light on the effects of Ayurvedic medicine on leukoderma.

1.1 Aim and Objectives

To evaluate the efficacy of Ayurvedic treatment in Shwitra.

2. CASE DESCRIPTION

On 10/10/2020, a female patient aged 12 years, opd reg. no. 20016517, visited opd of kaumarbhārtya, parul ayurved hospital, with pale discoloration over limbs, face, and scalp for 1.5 years, minor itching, burning sensation, and dryness, presented to opd of kaumarbhārtya, parulayurved hospital.

3. HISTORY OF PRESENT ILLNESS

Before 1.5 years, the patient was in good health. She gradually acquired some white discoloration over her right elbow joint, first with minor irritation and a very little lesion. The patient was unconcerned about it and ignored it, but her mother saw more white patches on both legs' lower limbs and ankle joints after a month. With presented with severe itching, burning sensation, dryness, and the color of the patches were white. After that patient's parents took her nearby hospital. There she was diagnosed with vitiligo and given suitable medicine her. The patient took 7 months of treatment but she did not get relief. To get a suitable solution they visited our hospital Parul Ayurved hospital for further management.

4. ASSOCIATED SYMPTOMS

Constipation was present from 1 year.

- PAST HISTORY

  No history of above skin complaints from past 1.5 year.
  No any history of thyroid disorder or any metabolic disorder.

- FAMILY HISTORY

  Her grandmother was suffering with same skin affecting complaints. She expired 3 years back.
➢ IMMUNIZATION STATUS
Scheduled as per age.

➢ PERSONAL HISTORY
Bowel: - Constipation
Urine: - 4-5 Times /Day
Sleep: - Sound
Krida:-Outdoor

➢ SOCIAL HISTORY
Residential Area:- Rural
Personal Hygiene: - Poor
Sanitation: - Poor
Drinking Water: - Tubewell
Family:- Joint

➢ DEVELOPMENTAL STATUS
Gross Motor: - Achieved
Fine Motor: - Achieved
Personal and Social: - Achieved
Language: _ Achieved
Toilet Training: - Achieved

➢ DIETETIC HISTORY
Vegetarian diet.

➢ CLINICAL ASSESMENT
a. General examination
Heart Rate: - 88/M
Temperature: - 98.8 F
Respiratory Rate: _ 20/M

b. Systemic Examination
Respiratory System:-AEBE Normal
Cardiovascular System: - S1S2 Normal
GIT System: - P/A Soft and Non Tender
Central Nervous System: - Patient Was
Concious and Oriented

➢ LOCAL EXAMINATION
Site of Lesion: - Skin
Distribution: - Irregular
Character of Lesions: - Present
Itching: - Present
Dryness: - Present
Roma Vivaranta: - Present

5. MATERIALS AND METHODS

5.1 Centre of Study
This study was carried out in kaumarbhritya
department of PARUL AYURVEDA HOSPITAL,
LIMDA, and VADODARA.

5.2 Treatment
Medication has given to the patient for 60 days
with 4 follow from 0th day to 60th day.
Manibhadra avaleha was given to the patient for
koshthashuddhi and mansheeladi ointment given
to the patient for bahyachikitsa.

6. OBSERVATION AND RESULTS
Regular oral and external use of
manibhadraavaleha and mansheeladi ointment
was observed. Which help in minimized the size
of the shwitra patches and colour of the patches.

![Graphical presentation of symptomatic relief]

Fig. 1. Graphical presentation of symptomatic relief
Table 1. Line of Treatment- Kostha Shudhi and Bahya Chikitsa [3-4]

| Day    | Manibhadra Avaleha                                      | Mansheeladi Ointment              |
|--------|--------------------------------------------------------|-----------------------------------|
| 15th   | 18 gm In Three Divided Doses BF                        | Over Effected Area qs             |
| 30th   | 18 gm In Three Divided Doses BF                        | Over Effected Area qs             |
| 45th   | 18 gm In Three Divided Doses BF                        | Over Effected Area qs             |
| 60th   | 18 gm In Three Divided Doses BF                        | Over Effected Area qs             |

Table 2. Assessment Grading for Subjective Parameter [5]

| Symptoms     | Grade | Grading                        | Remarks                                                                 |
|--------------|-------|--------------------------------|-------------------------------------------------------------------------|
| Twakrukshata | Grade 0 | Normal                         | No dryness                                                             |
|              | Grade 1 | Mild                           | Dryness on exposure to sunlight                                        |
|              | Grade 2 | Moderate                       | Dryness or other allergens                                              |
|              | Grade 3 | Severe                         | Dryness during exposure to cold environment                              |
|              |        |                                | Always dry                                                             |
| Kandu        | Grade 0 | Normal mild                    | No itching                                                             |
|              | Grade 1 | moderate                       | Itching on exposure to cold, sunlight or allergens                       |
|              | Grade 2 | Severe                         | Itching on exposure to cold environment or irritants                     |
|              | Grade 3 |                                | Severe itching                                                         |
| Daha         | Grade 0 | Normal                         | No burning sensation                                                   |
|              | Grade 1 | Mild                           | Burning sensation on exposure to midnoon sunlight                       |
|              | Grade 2 | Moderate                       | Burning sensation on exposure to morning sunlight or irritants          |
|              | Grade 3 | Severe                         | Always burning sensation                                               |
| Twakshwetata | Grade 0 | Normal                         | Normal skin colour                                                     |
|              | Grade 1 | Mild                           | Less depigmentation at margins and more on a lesions                   |
|              | Grade 2 | Moderate                       | Depigmentation is more than pigmentation equal on lesions              |
|              | Grade 3 | Severe                         | No pigmentation only white colour                                       |
| Roma vivarnata | Grade 0 | Normal                         | Normal hair colour                                                     |
|              | Grade 1 | Mild                           | Less than 20% of hair on lesions has vivarnata                          |
|              | Grade 2 | Moderate                       | Vivarnata                                                              |
|              | Grade 3 | Severe                         | 25-75% of hair over the lesions has vivarnata                           |

Table 3. Assessment criteria for no. Of patches [6]

| Number of patches | Score |
|-------------------|-------|
| 1                 | 1     |
| 2                 | 2     |
| 3                 | 3     |
| 4                 | 4     |
| >4                | 5     |

Table 4. Assessment criteria for colour of patches [7]

| Colour of patches       | Score |
|-------------------------|-------|
| Normal Skin Colour      | 1     |
| Red Colour              | 2     |
| White to Reddish        | 3     |
| Red to Whitish          | 4     |
| White                   | 5     |
Table 5. Observations during treatment (subjective parameter)

| Symptoms          | Grading | 0"" DAY | 15"" DAY | 30"" DAY | 45"" DAY | 60"" DAY |
|-------------------|---------|---------|---------|---------|---------|---------|
| Twak Shwetata     | 2       | 2       | 1       | 1       | 1       |
| Twak Rukshata     | 2       | 2       | 1       | 0       | 0       |
| Kandu             | 2       | 1       | 1       | 0       | 0       |
| Daha              | 2       | 1       | 1       | 0       | 0       |
| Roma Vivaranta    | 2       | 2       | 2       | 1       | 1       |

Table 6. Observation during treatment colour of patches (objective parameters)

| Color of Patches       | Grading | 0"" DAY | 15"" DAY | 30"" DAY | 45"" DAY | 60"" DAY |
|------------------------|---------|---------|---------|---------|---------|---------|
| Normal Skin Colour     | -       | -       | -       | -       | -       | -       |
| Red Colour             | -       | -       | -       | -       | 2       | -       |
| White to Reddish       | -       | -       | -       | 3       | -       | -       |
| Red to Whitish         | -       | -       | 4       | -       | -       | -       |
| White                  | 5       | 5       | -       | -       | -       | -       |

Table 7. Observation during treatment number of patches (objective parameters)

| NUMBER OF PATCHES | GRADING | 0"" DAY | 15"" DAY | 30"" DAY | 45"" DAY | 60"" DAY |
|-------------------|---------|---------|---------|---------|---------|---------|
| 1                 | -       | -       | -       | -       | -       | -       |
| 2                 | -       | -       | -       | -       | -       | -       |
| 3                 | -       | -       | -       | 3       | -3      | -       |
| 4                 | -       | -       | 4       | -       | -       | -       |
| >4                | 5       | 5       | -       | -       | -       | -       |

Table 8. Observation during treatment vasi score [8]

| VASI SCORE(CM SQ) | PERCENTAGE RELIEVED |
|-------------------|---------------------|
| BT                | AT                  |
| 163 CMSQ          | 70CM SQ             | 42.94%              |

Table 9. Symptomatic Relief

| Symptoms            | Percentage |
|---------------------|------------|
| Twak Shwetata       | 50%        |
| Twak Rukshata       | 100%       |
| Kandu               | 100%       |
| Daha                | 100%       |
| Roma Vivaranta      | 46%        |

Fig. 2. Photos of case study
7. DISCUSSION

7.1 Manibhadra Avleha

It contains amalaki, haritaki, vidang, trivrit and guda.

In which amalaki has vitamin c which enhances the late differentiation of keratinocytes, reduce oxidative stress and keep the integrity of the entire cuticle. Which ensure the characteristics of the skin barrier and stopping pores and skin water loss, which helps in flip the problem [9].

Amalaki also is vata, kapha, pitta har which helps in removal of doshas and reduce the burning sensation in skin due to sheet virya.[10]

Haritaki has tri-ethyl chebula which is a sturdy antioxidant and free radical scavenger, which assist for anti oxidative capability. This help in pigmentation of white skin in shwitra.[11]

It is also pitta , kapha and vatahar. Due to katu and Kashaya rasa it helps in purification of rakta dhatu which helps in change in the color of skin.[12]

Vidanga has energetic concept i.e estrogenic factor. Which accelerate the thyosinase interest of human melanocyte, and promotes the formation of melanin.[13]

Trivrit act as a purgation which helps in shodhna of the body and eliminates the vitiated doshas which is curx of the pathology of shwitra [14]

Guda contains calcium, zinc, vitamin b12 which plays important role in the manner of melanogenesis. Vitamin b12 act as a pseudo t-

7.2 Mansheeladi Ointment

Mustard seed has phytotoxins which act as anti bacterial and anti fungal activity, which help to prevent the spread of patches of shwitra. It also has anti inflammatory mechanism which help in wound healing and burning sensation.[16]

Arkadugdh is bhedaka , teekshna , kaphvata shamaka in nature due to which it cures the shwitra.[17]

Hartala breaks the pathogenesis of shwitra which prevent the self destruction of melanocytes. The vyavayi and ashukari properties of hartala may help the other drugs to reach the site quickly and remove the obstruction of shwitra.[18]

Mansheela act a toxic warmness on skin which promote the quick absorption of other drugs. It also has katurasa,ushnavirya,saraguna which helps in vatakapha shaman and also varnya karma act on bharajak pitta which mainly involved in colouration of skin.[19]

Maricha( pipernigrum)it has many important active constituents like piperine,piperidine,piperamide which increase the absorption of vitamin b , beta – carotene and as well as other nutrients. Maricha has anti oxidant properties.(20

8. CONCLUSION

Shwitra (leukoderma) is one of the skin ailments producing psychosomatic trauma to individual and it is of more concern especially in children. Ayurveda remedies have highest potential to
control the Shwitra. In this study encouraging results was obtained in Shwitra. There is significant reduction in the patches with the use of Manibhadra Avaleha and Manasheeladi Ointment and is found to be safe and effective.

DISCLAIMER

There were no other people or organizations that influences this work. No funding, no patent application /registration has been requested or granted. So, authors have declared that no competing interests exist.

CONSENT

As per international standard or university standard, patient’s written consent has been collected and preserved by the author(s).

ETHICAL APPROVAL

The ethical approval from institute has been obtained. **IEC: - DONE (PU/PIA/IECHR/2019/167)**

ACKNOWLEDGEMENTS

I would like to thank board members of PARUL UNIVERSITY, dean sir of PARUL INSTITUTE of AYURVEDA and my all faculty in department of kaumarbhritya for their valuable guidance, support, suggestions and encouragement.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

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