

AYURVEDIC MANAGEMENT OF SHWITRA: A CASE REPORT

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ABSTRACT

Introduction: - Vitiligo is one of the skin diseases causing cosmetic problems. It is a common puzzling disorder of great socio-medical importance characterised by hypopigmented and/or depigmented milky white or ivory white maculae on the skin resulting from the loss of cutaneous melanocytes. In the present scenario, people are very conscious about their health as well as having beautiful and clear skin. Thus, health and beauty are two faces of a single coin. Moreover, a person who is physically healthy and is personified by beauty is much more intelligent and confident than a normal being. Discoloration of skin without perceiving pain is an exclusive characteristic of *Shwitra* (Vitiligo) *Roga*. **Aim:-** To evaluate the efficacy and safety of an Ayurvedic formulation (Vitimelin tablet and Vitimelin oil) in patients

with Vitiligo/*Shwitra*. **Material and Methods:** - Clinically pre-diagnosed patients of *Shwitra* (vitiligo) were taken from the OPD of Balroga, National Institute of Ayurveda, Jaipur. Selected patients were treated with Vitimelin (one tablet three times) and a local application of Vitimelin oil two times. Oil application was followed by a 20-minute exposure to sunlight or UVA lamp radiation. **Result:** - At some point, after 3 months of treatment with Vitimelin tablet and oil, with 20-minute exposure to sunlight or UVA lamp radiation, the size of white patches clinically reduces significantly, and at some places the skin becomes normal. **Discussion:** - Following the result of the therapy on white patches, it can be concluded that internal use of Vitimelin tablet and local use of Vitimelin oil can play a significant role in

melanocytic production. Therefore, both can be used effectively in the management of *Shwitra Roga* (Vitiligo).

KEYWORDS:- *Shiwitra*, Vitiligo, *Kustharog*, Vitimelin oli and tablet.

INTRODUCTION

Skin complexion is a characteristic for each and every individual that is affected by many factors. One of the most notable components of skin that contributes to the complexion is a pigment known as melanin. Melanin is an irregular light-absorbing polymer containing indoles and other intermediate products derived from the oxidation of tyrosine. Melanin granules are transferred from melanocytes to epithelial cells and form the predominant pigment of the hair and epidermis. Several factors influence melanin production in humans, including UV radiation exposure, genetic makeup, melanocyte size, and disease conditions. Several diseases may affect melanin production, including albinism and vitiligo.

Vitiligo is an acquired, chronic, pigmentary disorder characterised by the progressive loss of cutaneous melanocytes and abnormality in their normal function, resulting in hypopigmented skin areas which progressively become amelanotic. The cause is unknown but might be related to genetic factors, autoimmunity, neurological factors, toxic metabolites, and lack of melanocyte growth factor. According to *Ayurveda*, the main etiological factor for *Shvitra* is regular consumption or practise of "*Viruddha aahar-vihar*". In the *Charaka Samhita*, *Shvitra* is enumerated as "*Raktaj Vikar*".^[1] *Bhrajak Pitta*, which is responsible for skin colour, gets vitiated in this disease.^[2] The combination of *Rakt* and *pitta dosha* is mentioned as *ashaya-ashrayabhav*. *Shvitra* is considered a type of *Kilas* and *Tridoshaj vyadhi*. Most Ayurvedic authors use *Shvitra* and *Kilasa* as synonyms.

Vitiligo/*Shvitra* also affects the psychological health and social relations of the affected person due to cosmetic issues and the ugly presentation of skin patches. For all of these reasons, people suffering from this disease may face a social boycott. Vitiligo has a major impact on the quality of life of suffering people. Many vitiligo patients feel distressed and stigmatized by their condition.

A lot of references are available in different Ayurveda classics, which show that the disease was prevalent at that time. As a result, it is critical to conduct research to find efficient, cost-

effective, natural, and safer formulations to manage *Shwitra Roga*. Keeping this in mind, the present study was carried out for its management.

Aims and Objective of the study

Clinical evaluation of an Ayurveda formulation, Vitimelin tablet, and Vitimelin oil in the management of *Shwitra Roga* on scientific parameters.

MATERIALS AND METHODS

Case description

In September 2021, an 11-year-old male child from Brahmpuri presented to the Balroga OPD of NIA with complaints of whitish discolored patches over his left knee, both ankle regions, right leg, and eyelid without dryness or scaling.

History of present Illness

The patient was healthy before 4 years, and he was not aware of the disease. Gradually, his mother noticed that he developed small white lesions over his left knee, head, around both eyes, ankle, and leg. Initially, he neglected it, but with due time, the size of the patch has increased, sometimes associated with an itching sensation. This patient visited his nearby hospital where he was diagnosed as having Vitiligo and given treatment. The patient took treatment for 6 months and didn't get significant results. Later, he discontinued medication for lockdown due to COVID-19 and also for his other health issues. In September 2021, to get a permanent solution for the said complaint, he visited our OPD with his mother for further management.

Past history

No significant relevant history was found for the above skin complaints.

Family history

His uncle, the first relative from his father's side, is having the same problem, suffering from the age of 8 years and has patches over his hands and lips.

Personal history

Bowel – Regular

Bladder- 6-7 times a day

Appetite- Irregular

Sleep- Normal

Diet- Vegetarian prefers mostly sour, spicy and salty foods.

Weight – 30.8 kg,

Height – 140cm

Dietary history

1. Status of *Agni* - *Mandagni*
2. Breakfast – Irregular, Lunch- Regular, Dinner - Regular
3. Dominant *Rasa*- *Amla* and *Lavan*

General examination

Pallor– Present

Icterus- Absent

Cyanosis– Absent

Clubbing- Absent

Lymph node- Not palpable

Oedema– Absent

Blood pressure– 120/80mm of Hg

Pulse rate– 80 beats/min

Diagnosis –*Shwitra*

Criteria for assessment

- 1 Photography was used to keep track of how the colour of the vitiligo patches and black dots changed over time.
- 2 The number of dots was counted and the joining of two or more dots (blackish) if any was noted and recorded in subsequent follow-up with grading.
- 3 Any change in the size of the observed patch, if any, was recorded.
- 4 Use of Vitiligo area scoring index (VASI) [Score 0 – 100] for assessment of improvement.

$$\text{VASI} = \sum [\text{Surface (Hand unit)}] \times [\text{Residual Depigmentation}]$$

Treatment plan

- **Oral medication** - Tablet Vitimelin (500 mg each) *– one tablet three times with normal water.
- **Local application** - Oil Vitimelin* – local application two times on patches/affected area, after 10 min. of application sunlight/UVA lamp exposed on affected area for 20 min.

- **Dietary restrictions** – It is advised to avoid spicy, bitter, sour, acidic foods, fried foods, junk foods, curd, and food those containing any type of preservative or chemically processed.
- **Modification in lifestyle** – Advised to follow light exercise, Pranayama and avoid late night awaking.
- **Duration of clinical trial** – 3 months

Selection of drugs –

*Composition of vitimelin tablet

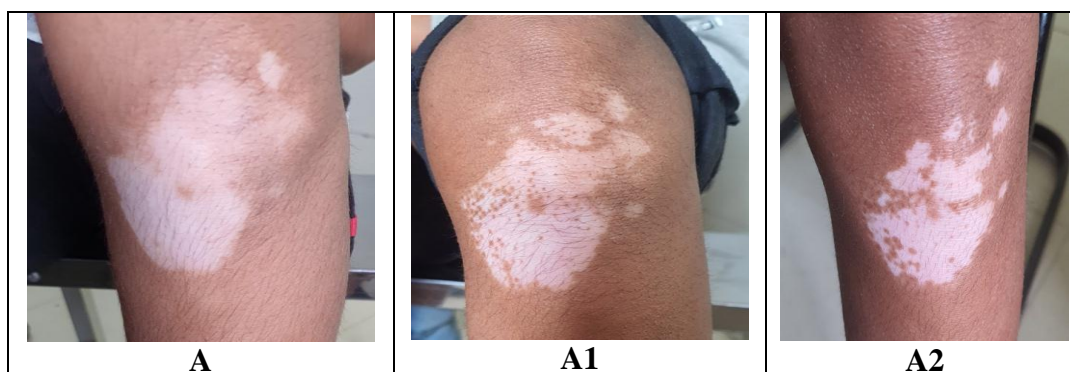
S. N.	Name of drug	Latin name	Family	Useful part	Quantity
1	<i>Bakuchi</i> ^[3]	Psoralea corylifoliya	Leguminosae	Seed	250mg
2	<i>Bhumi-amlaki</i> ^[4]	Phyllanthus Urinaria	Euphorbiaceae	Wholeplant	200mg
3	<i>Jatamansi</i> ^[5]	Nordostachys Jatamansi	Valerianaceae	Root	50mg

*Content of vitimelin oil

S. N.	Name of drug	Latin name	Family	Useful part	Quantity
1	<i>Bakuchi</i> ^[6]	Psoralea corylifoliya	Leguminosae	Oil	40%
2	<i>Til-tail</i> ^[7]	Sesamum Indicum	Pedaliaceae	Oil	60%
<i>Sneh-Pak Dravya</i>					
3	<i>Gandh-nakuli</i> ^[8]	Aristolochia Indica	Aristolochiaceae	Wholeplant	13%
4	<i>Chitraki</i> ^[9]	Plumbago Zeylanica	Plumbaginaceae	Root	7%
5	<i>Karanj</i> ^[10]	Pongamia Pinnata	Leguminosae	Leaf,Seed	5%

RESULT

Photographic evidence of improvement





The patient was monitored for three months to see how the *Shamana* treatment affected skin pigmentation. After 15 days, the depigmented patches began to turn pink and scratchy, indicating that the treatment was working. The skin turned scaly after a month, with increased redness and irritation. Normal pigmented patches began to emerge in the affected areas after 6 weeks (Figs A1-B1, C1 and D1). Pigmentation begins on the upper and lower eyelids, followed by pigmentation on the legs, ankles, and knees. Re-pigmentation continued for roughly 2 months after treatment, with alterations in patches all over the body. After 3 months, the majority of the skin had returned to its original colour (Figs A2, B2, C2 and D2). As re-pigmentation emerges progressively in order of eyelid, leg, ankle, and eventually parts below the knee, it is likely to start from areas of skin with less thickness to sections of skin with more thickness. Due to regular sun exposure as a treatment strategy, the non-affected skin surrounding the depigmented patches showed minor hyperpigmentation. Oral medicines were administered for a long time in this situation. To rule out medication toxicity, a

hemogram, liver function test, and renal function test were performed and determined to be within the physiological range. The case shows clinically promising re-pigmentation results without any side effects. It's also worth noting that no new hypopigmented regions appeared as a result of the treatment.

DISCUSSION

Properties of component

S. N.	Name of Drug	Rasa	Guna	Virya	Vipaka	Indication	Chemical composition
1.	<i>Bakuchi</i> ^[16]	<i>Katu, Tikta</i>	<i>Laghu, Ruksha,</i>	<i>Ushna</i>	<i>Katu</i>	<i>Kusthghn</i> ^[11] <i>Krimighn,</i>	<i>Psoralen,</i> <i>Psorelidin,</i> <i>Isopsoralidin,</i> <i>Corylifolin</i> ^[16]
2.	<i>Gandh-nakuli</i>	<i>Tikta, Katu, Kashaya</i>	<i>Laghu, Ruksha</i>	<i>Ushna</i>	<i>Katu</i>	<i>Vishnasini,</i> <i>Krimighn</i> ^[12]	<i>Aristolochin,</i> <i>Isoaristolochic acid</i> ^[18]
3.	<i>Chitrak</i> ^[13]	<i>Katu</i>	<i>Laghu, Ruksha</i>	<i>Ushna</i>	<i>Katu</i>	<i>Kusthghn</i> ^[15]	<i>Plumbagin</i> ^[19]
4.	<i>Karanj</i> ^[14]	<i>Tikta, Katu, Kashaya</i>	<i>Laghu, Tiksnha</i>	<i>Ushna</i>	<i>Katu</i>	<i>Kandughn</i> ^[16] <i>Krimikusthajil</i> ^[17]	<i>Karanjin,</i> <i>Pongamol</i> ^[20]
5.	<i>Jatamansi</i> ^[18]	<i>Tikta, Kashaya, Madhur</i>	<i>Laghu, Snigdha</i>	<i>Sheet</i>	<i>Katu</i>	<i>Swed-janan,</i> <i>Kusthagh</i>	<i>Jatamansik,</i> <i>Jatamanson</i> ^[15]
6.	<i>Bhumi-amlaki</i> ^[19]	<i>Tikta, Kashaya, Madhur</i>	<i>Laghu, Ruksha</i>	<i>Sheet</i>	<i>Madhur</i>	<i>Kusth-vishapaha</i> ^[20]	
7.	<i>Til-tail</i> ^[21]	<i>Madhur</i>	<i>Guru, Snigdha</i>	<i>Ushna</i>	<i>Madhur</i>	<i>Snehan,</i> <i>Vednasthapan,</i> <i>Vran-sodhan</i>	<i>Sesamin,</i> <i>Sisemol</i> ^[17]

Bakuchi's Ras is *Katu, Tikta, Katu Vipak, and Ruksha Guna*, and the powder and extract have potent antioxidant capabilities. Antigen-induced granulation is inhibited by bavachin and psoralidin. The *katu-Tikta Rasa, Ruksha Guna, katu Vipaka*, of the *Bakuchi* removes *Sroto-Dushti* in the *Shwitra Sroto-Dushti* and also stimulates blood circulation locally, providing nutrients to the cells present and assisting in the proper production of *Bhrajak Pitta* in the skin. *Bakuchi* has been shown to improve the pace of synthesis and amount of melanin, allowing skin to recover from vitiligo conditions. Because it contains UV rays and is combined with *Bakuchi*, using sunlight in the early morning on the affected area of skin creates a favourable environment for stimulating melanocyte migration and proliferation.^[22]

Phyllanthus niruri's antioxidant hepatoprotective action could be due to its high content of antioxidative flavonoids, tannins, lignans, and terpenes. P. niruri hexane extract contains lignans such as phyllanthin and hypophyllanthin, which protect rat hepatocytes against carbon tetrachloride and galactosamine-induced hepatotoxicity, according to one of the early in-vitro studies on the antioxidative hepatoprotective effect of P. Niruri.^[23]

Jatamansi is a well-known *Ayurvedic* herb that is used to treat skin conditions. In *Sanskrit*, *Kantiprada* means "enhancing the complexion and sheen of the skin." In *Kandughna*, *Charakacharya* refers to it. It is commonly used to purify blood due to its bitter taste and *Pitta*-balancing properties. As a result, it's beneficial for skin problems. When used externally, it relieves burning sensations because it is *Pitta* balancing. The extract of N. *Jatamansi* exhibits a high level of antioxidant activity. As a result, it can be classified as a natural antioxidant, and it is well recognised that natural antioxidants offer anti-aging, anti-sun protection, and anti-cancer properties. It eliminates free radicals, which cause skin damage. It keeps the skin moisturised and reduces redness.^[24]

Aristolachia indica demonstrated antibacterial and antifungal activity that was moderately significant. It suppressed bacterial and fungal growth in a dose-dependent manner. The antibacterial activity of ethanolic extract against fungi was higher than that of bacteria. The antibacterial activity of ethanolic extract against fungi was higher than that of bacteria.^[25]

The main *Doshic* participation in *Shwitra* is vitiation of *Kapha* and *Vata*, *Chitrak* pacifies *Kapha* and *Vata*, therefore controlling sickness at its source. Due to the presence of plumbagin, *Plumbago zeylanica* strengthens the immune system, protecting the skin from microbial susceptibility. It protects the body from external contaminants and prevents tissue damage caused by free radicals. It inhibits the inflammatory process in the body, protecting the skin from conditions such as vitiligo.^[26]

Charaka mentions *Karanja* among the *Kandughna* Varga. *Sushruta* mentioned *Karanja* Taila as *Kapha-Vathara*, *Shothahara*, *Kandughna* (anti-itch), and *Bhedana* in *Krimi*, *Kushta*, *Prameha*, and *Siroroga*, and quoted it as *Kapha-Vathara*, *Shothahara*, *Kandughna* (anti-itch), and *Bhedana*.^[27] *Karanjin*, *pongapin*, and *Karanja* chromen are all present. It has antimicrobial and hypoglycemic properties. The essential oil of P. pinnata was found to have modest antifungal properties. *Karanja* is also significant due to its oil-containing seeds. The

oil content of *Pongamia pinnata* seeds is around 40%, which can be turned to biodiesel using the transesterification method.^[28]

CONCLUSION

Shwitra is a frequent skin condition that has a symptomatic relationship with vitiligo. Excessive consumption of heavy, greasy, salty, and sour meals, solar exposure, genetic variables, and environmental impacts, among other things, can all contribute to *Shwitra* aetiology. *Ayurveda* described a variety of treatments for *Shwitra*, including the use of natural medicines such as *Ayurvedic Formulation (Bakuchi, Bhumi-Amalaki, Jatamansi, Chitrak, Karanj, Ishwari)*. This aids in the treatment of *Shwitra* by providing health advantages for a variety of skin disorders. It cleanses the body of impurities, promotes digestion, balances nutritional supply, has anti-inflammatory and antibacterial qualities, and has calming and soothing properties. *Chitrak* and *Jatamansi* strengthen the immune system, protecting the skin from microbial susceptibility. It also protects the body from free radical damage, pacifies *Kapha* and *Vata*, and detoxifies the body, all of which help to maintain the colour and texture of the skin. According to the article, *Ayurvedic Formulation* can be used as an alternative treatment approach to treat skin diseases such as *Shwitra*.

REFERENCES

1. *Charaka samhita (Sutra sthana Vividhashitapitiya adhyay)* [Exponded by the worshipful *Atreya Punarvasu*, Compiled by the *Agnivesha* and redacted by *Charaka and Dridhabala*] by Dr. Brahmanand Tripathi foreword by Dr. G.S. Pandey, Chaukhamba Surbharti prakashan, Varanasi. Edition reprint year, 2006; 28 – 12.
2. *Sushrut Samhita (Sutra sthana Vranaprashniya Adhyay)* edited with *Ayurveda-Tattva-Sandipika* by Dr Ambikadutta Shastri Foreword by Dr. Pranajivana Manekchanda Mehta, Chaukhamba Sanskrit sansthan, Varanasi Edition reprint year, 2017; 21 – 10.
3. *Dravyaguna vijnana (vegetable drugs)*, by prof. P.V. Sharma published by Chaukhambha Bharti Academy Varanasi, Edition reprint year, 2011; 175 – 178.
4. *Dravyaguna vijnana (vegetable drugs)* by prof. P.V. Sharma published by Chaukhambha Bharti Academy Varanasi, Edition reprint year, 2011; 2: 640-641.
5. *Dravyaguna vijnana (vegetable drugs)*, prof. P.V. Sharma published by Chaukhambha Bharti Academy Varanasi, Edition reprint year, 2011; 31 – 34.
6. *Dravyaguna vijnana (vegetable drugs)* by prof. P.V. Sharma published by Chaukhambha Bharti Academy Varanasi, Edition reprint year, 2011; 175 – 178.

7. *Dravyaguna vijnana (vegetable drugs)* prof. P.V. Sharma published by Chaukhambha Bharti Academy Varanasi, Edition reprint year, 2011; 2: 120-123.
8. *Dravyaguna vijnana (vegetable drugs)* by prof. P.V. Sharma published by Chaukhambha Bharti Academy Varanasi, Edition reprint year, 2011; 2: 594 – 596.
9. *Dravyaguna vijnana (vegetable drugs)*, by prof. P.V. Sharma published by Chaukhambha Bharti Academy Varanasi, Edition reprint year, 2011; 2: 359-361.
10. *Dravyaguna vijnana (vegetable drugs)*, by prof. P.V. Sharma published by Chaukhambha Bharti Academy Varanasi, Edition reprint year, 2011; 2: 144 – 146.
11. *Bhavprakash niganthu (indian material medica)* of shri Bhavmisra (C.A.D.) *Haritkayadivarga* commentary by padmashri prof. Krishnachadra chunekar Edited by Late Dr.G.S.Pandey, published by Chaukhambha Bharti Academy Varanasi, Edition reprint year, 2018; 119: 1500-1600.
12. *Bhavprakash niganthu (indian material medica)* of shri Bhavmisra (C.A.D.) *Haritkayadivarga* commentary by padmashri prof. Krishnachadra chunekar Edited by Late Dr.G.S.Pandey, published by Chaukhambha Bharti Academy Varanasi, Edition reprint year, 2018; 79: 1500-1600.
13. *Bhavprakash niganthu (indian material medica)* of shri Bhavmisra(C.A.D.) *Haritkayadivarga/* commentary by padmashri prof. Krishnachadra chunekar Edited by Late Dr.G.S.Pandey, published by Chaukhambha Bharti Academy Varanasi, Edition reprint year, 2018; 71: 1500-1600.
14. *Sushrut Samhita (Sutra sthana Dravyasangrahaniya Adhyay, Aragvadhadi gana* Ssusratavimarsini Hindi commentary by Dr anant Ram Sharma Foreword by Acharya Priya Vrat Shama, Chaukhamba Surbharati prakashan, Varanasi Edition reprint year, 2008; 38 – 7.
15. *Dravyaguna vijnana (vegetable drugs)*, by prof. P.V. Sharma published by Chaukhambha Bharti Academy Varanasi, Edition reprint year, 2011; 145: 2.
16. *Charaka samhita, (Sutra sthana Sadhvirechanshatasriya Adhyay)* [Exponded by the worshipful *AtreyaPunarvasu*,Compiled by the *Agnivesha*and redacted by *Charaka and Dridhabala*] by Dr. Brahmanand Tripathi foreword by Dr. G.S. Pandey, Chaukhamba Surbharti prakashan, Varanasi, 4 – 16.
17. *Bhavprakash niganthu (indian material medica)* of shri Bhavmisra(C.A.D.) *Guduchyadivarga* page no. commentary by padmashri prof. Krishnachadra chunekar Edited by Late Dr.G.S.Pandey, published by Chaukhambha Bharti Academy Varanasi, Edition reprint year, 2018; 335: 1500-1600.

18. *Bhavprakash niganthu* (indian material medica) of shri Bhavmisra (C.A.D.) *Karpradivarga*, page no. commentary by padmashri prof. Krishnachadra chunekar Edited by Late Dr.G.S.Pandey, published by Chaukhambha Bharti Academy Varanasi, Edition reprint year, 2018; 229: 1500-1600.
19. *Dravyaguna vijnana (vegetable drugs)* by prof. P.V. Sharma published by Chaukhambha Bharti Academy Varanasi, Edition reprint year, 2011; 640: 2.
20. *Kaidev nighantu (Pathya-Apathya vibodhak)*, *Aushadhivarga*, commentary and edited by Acharya Priyavrat Sharma and Dr. Guruprasad Sharma, Published by Chaukhambha orientalia, Edition reprint year, 2009; 49.
21. *Dravyaguna vijnana (vegetable drugs)*, by prof. P.V. Sharma published by Chaukhambha Bharti Academy Varanasi, Edition reprint year, 2011; 120:
22. Bankar s.a. , Girbide s.g., Reddy a.p., Damle r.v., Kchare k.b., Parade a.b. Management of shwitra w s r to vitiligo with bakuchi churna and bakuchi tail: a case study world journal of pharmaceutical reserch, 2016; 15.
23. Shyamsundar KV et al. Antihepatotoxic principle of *Phyllanthus niruri* herbs. J Ethnopharmacol, 1985; 14: 41-44.
24. Manisha Chandajkar Joshi The study of effect of herb *nardostachys Jatamansi* on skin Manisha Chandajkar Joshi, India Journal of Clinical & Experimental Dermatology Research International Conference on Clinical and Experimental Dermatology June, Philadelphia, USA, 2017; 14: 19-20.
25. <https://www.easyayurveda.com/2017/03/29/ishwari-aristolochia-indica-indian-birthwort/amp/>
26. Dr. Prashant Dakhole, Dr. Pradnya, Role of Chitrak in the Management of Skin Problem W.S.R. to Shwitra, journal of drug delivery and therapeutics.
27. Dr. J. L. N. Shastry, *Dravyaguna Vijnana* Reprint, Chaukhamba Orientalia Varanasi, 2014; 2: P-167.
28. Dr. Avinash Bholane , Dr. Vidyavati V Hiremath A critical review on *Karanja (Pongamia pinnata)* & its medicinal properties, Journal of Ayurveda and integrated medical science.