



VITILIGO IN CHILDREN: AN AYURVEDIC AND MODERN REVIEW ARTICLE

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ABSTRACT

Due to cosmetic concerns and the unpleasant appearance of skin patches, Vitiligo/ *Shwitra* has an impact on the affected person's psychological health and social relationships. Because of all of these factors, a person suffering from this disease may face social exclusion. Vitiligo has a significant impact on a person's quality of life; many Vitiligo sufferers are upset and stigmatized as a result of their condition. In today's world, bad eating habits and irregular living patterns are very widespread, and these may be the cause of the "Viruddhaahar-viharjanya" sickness. Vitiligo (*Shwitra*) and leukoderma affect a large portion of the population in the pediatric age group as a result of poor lifestyle and eating habits.

Two types of *Ayurvedic* treatment principles, *Shodhan* and *Shaman* have to be followed while treating *Shwitra Roga*. The patient should be treated with *Shodhana* when the morbid *Dosha* is more powerful. General line of treatment of *Kushta*, also can be adopted in this condition i.e. *Rakta-Mokshana* is to be done at every six months, *Virechana* is to be given at every one month; *Vamana* is to be given at every 15th day respectively. *Roga Bala*, *Rogi Bala*, *Kala*, *Vaya*, *Agni*, and *Vyadhi-Avastha* are some of the factors that influence which line of treatment has to be chosen. This long-term treatment aims to eradicate vitiated *Dosha* and bring the *Doshas* back into balance. *Shwitra* may become *Asadhya* with time so the patients those suffering with *Shwitra* requires a quick and effective line of management.

INTRODUCTION

Vitiligo is an acquired, chronic, pigmentary disorder characterized by the progressive loss of cutaneous melanocytes and abnormality in their normal function resulting in hypo pigmented skin area which is progressively became amelanotic.¹ The cause is unknown but might be involve genetic factor, autoimmunity, neurological factors, toxic metabolites and lack of melanocyte growth factor. The total area of skin that can be affected by vitiligo varies in every individual. It can also affect the eye, the inside of mouth and hair. The condition is photosensitive. It is hard to predict whether the patches will spread and by how much. The spread might take week or the patches might remain stable for month or years.

Vitiligo is a common inflammatory disorder with worldwide prevalence of 0.4-2 % of the population with half of cases being in childhood. In 25% of cases, it starts before the age of 10 years. The management of childhood vitiligo should be tailored to avoid to negative effect on the overall growth and psychological development of the patient². In this age vitiligo may represent a deep psychological trauma for both patients and their parents, and leads to a poor quality of life. In general childhood vitiligo differs from the adult disease.

The similar features of disease vitiligo also found in some *Ayurveda* text i.e. *Charaka Samhita*³, *Sushruta Samhita*⁴, *AstangaHridaya*⁵ under the heading of *Shwitra* with detailed description of symptoms, classification, prognosis and treatment. Medieval authors like *Madhava Nidan*⁶, *Sarangadhara Samhita*⁷ and *Chakradatta*⁸ also enumerated certain additional information regarding *Shwitra*. According to *Ayurveda* the main etiological factor for *Shwitra* is regular consumption/practice of "Viruddhaahar-vihar" (Faulty dietary habits and lifestyle). In *Charaka Samhita*, *Shwitra* is enumerated as "Raktaj-vikar"⁹ the *Bhrajak pitta* which

is responsible for skin color, gets vitiated in this disease¹⁰. The combination of *Rakt* and *Pitta Dosha* are mentioned as *Ashaya-Ashrayabhav*. *Shwitra* is considered as a type of *Kilas* and *Tridoshaj-vyadhi*. Most of *Ayurveda* Authors use *Shwitra* and *Kilasa* as synonyms.

Acharya Sushruta has also given the word '*Kilasa*' for *Shwitra*. He clarified that *Kilasa* is *Aparisravi* in nature and only *Twak* is involved. According to *Charaka*, it is referred as *Shwetakushta* or *Shwitra* or *Kilasa* and classified into *Kushta Rogas*. *Acharya Charaka* has mentioned three varieties, depending on vitiation of *Dosha* and involvement of *Dhatu*. *Shwitra* is classified into following types-

According *Doshika* predominance and involvement of *Dhatu-Dosha-Dhatugata* Symptoms

Table no.1: Classificatin of Shwitra

<i>Dosha</i>	Involvement of <i>Dhatu</i>	Symptoms
<i>Daruna (Vataja)</i>	<i>Rakta-gata</i>	<i>Aruna Varna & Krushna Varna</i>
<i>Aruna (Pittaja)</i>	<i>Mamsa-gata</i>	<i>Tamravarna, Roma Shatana, Vidaha</i>
<i>Kilasa (Kaphaja)</i>	<i>Medo-gata</i>	<i>Swetavarna, Balavan Bahusitam & Sakandu,</i>

ETIOLOGY

Nidana of *Shwitra* can be classified as 3 categories, i.e.

1. *Aharaja*
2. *Viharaja*
3. **Miscellaneous causes**

1. AHARAJA NIDANA:

Aharja Nidana can be divides as follows:

- A. *Ati-Sevana*: Increased frequency of diet, increased consumption *Guru* and *Snigdha Ahara* etc.
- B. *Mithya Ahara*: Not taken according to the *Astavidhi-viseshayatanani* (Irregular diet habit).
- C. *Viruddha Ahara*: Prolonged intake of *Viruddha Ahara* (Incompatible food)

2. VIHARAJA NIDANA:

Common *Vihara Hetu* for *Shwitra* described like *Diwaswapna* (Day time sleeping), *Vegavidharana* (Suppression of urges), *Santapa* (Heat exertion), *Vyayama*, *Vyavaya*, *Chikitsa Vaishamy* (*Panchakarma* with improper manner), *Manasikakarana* like *Bhaya* (fear), *Shoka*(Grief), *Krodha* (anger), *Chinta* (worry) etc.

3. MISCELLANIOUS CAUSES:

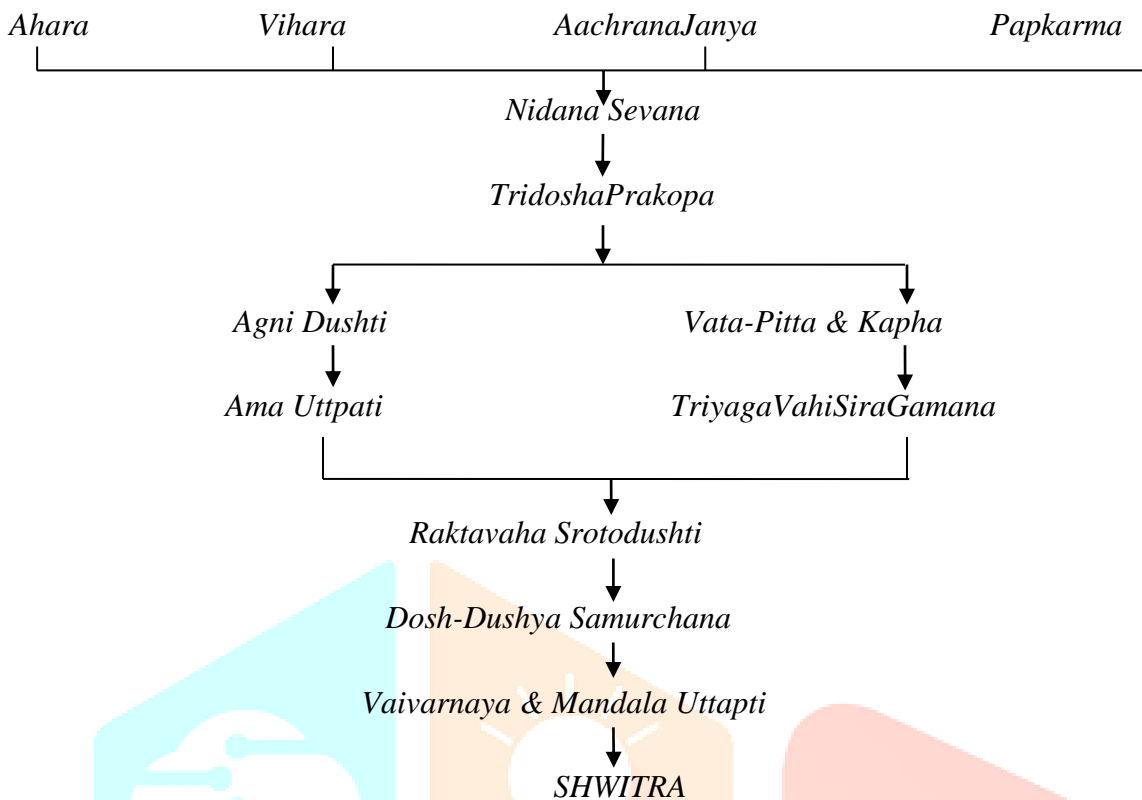
a) **Due to *Kulaja Nidana*: *Beejadushti*.**¹¹

b) **Due to *Papakarma***: *Shwitra* is a *Karmaja Vyadhi*, *Acharya Charaka* has described particularly *Papakarma* as the *Nidana* causative factors of this disease. Also, the hereditary involvement of the disease is described by *Acharya Sushruta*. *Purva Janam Krut Karma* and *Papakarma* are also called as *Kha-Vaigunya Karaka Nidana*, and *Sparshnendriya* is mentioned as *Adhishthna*¹².

PATHOPHYIOLOGY

The pathophysiology of vitiligo is becoming increasingly clarified. Early variables in non-segmental vitiligo include innate immune activation, oxidative stress, and loss of melanocyte adhesion. Nonetheless, immune-mediated death of melanocytes is the primary cause of non-segmental vitiligo. In the final effector stage, anti-melanocyte-specific cytotoxic T-cells play a critical role. A multi-genetic inheritance overlap with various autoimmune disorders was discovered through genetic study. Some melanocyte-specific genes were also impacted. The pathophysiology of segmental vitiligo is different, with the majority of evidence pointing to mosaic skin disease.¹³

Samprapti according Ayurveda-



No detailed *Samprapti* of *Shwitra* has been described by *Acharya Charaka*, *Sushruta*, *Vagabhatta*, and other *Samgraha Kalina Acharyas*. Only *Harita* has mentioned the *Samprapti* of *Shwitra* and claims that the *Pitta*, which is located in *Twak* provokes by the *Vata*¹⁴. The *Doshas* then migrate through the *Triyakgata Siras* and lodge in the *Tamra* layer of the *Twak*, creating *Sanga* in the local *Rasavaha* and *Raktavaha Srotas*. *Twak Shwetata* is caused by the impairment of the local *Bhrajaka Pitta*. The *Samprapti* continues, and deeper *Dhatus* such as *Mamsa* and *Medas* are included as well. Each *Dhatu's* participation results in a distinct discoloration of the lesion.

White patches on the skin are the main sign of *Shwitra*. The skin remains of normal texture and there are usually no itching or other symptoms. These patches are more obvious in sun-exposed areas including the hands, feet, arms, legs, face and lips, patches may appear in the armpits, navel, genitals, groin region, eyes, nostrils and in and around the mouth also.

MANAGEMENT

For the management of *Shwitra Roga*, two types of treatment i.e. the principal of treatment are advocated in *Ayurveda* classics.

1. *Shodhan Therapy*:

- *Shodhana* as its unique significance in this condition, prior to *Shodhana*, purification (*Snehana* and *Swedana*) is required essentially.
- *Snehapana* with *Tiktka Ghrita*, *Maha-tiktka Ghrita* should be used to begin the treatment. After the *Snehapana* next *Swedana* is to be performed, which liquefies the involved *Dosha* (*Pitta* and *Kapha*) and prepares them to be expelled.
- For the treatment of *Pittaja* and *Raktaja Vyadhies*, *Virechana Karma* is strongly advised in the *Shodhana* process, and *Rakta Pitta's* role is extremely obvious in *Shwitra* so *Virechana Karma* is specifically recommended in its treatment.
- After *Virechana* the *Vata Dosha* increases in *Koshtha* so *Snehapana* again advised to subside the increased *Vata Dosha*.

- *Raktamokshan - Rakatamokshana* should be preceded by *Shodhana* and *Virukshana*. *Sira Vedha* should be applied on fused lesions and it requires surgical skill. If the number of patches are more and appears all over the body, then *Sira Vedha* may be done. If patches are small and less in number, then *Prachhanna* is indicated. Cupping therapy can also be used for *Raktamokshana*.

2. **Shamana Therapy-** *Shamana* includes local application and internal medication and external medication.

Table no. 2: External and Internal Medication

S.N.	EXTERNAL MEDICATION	INTERNAL MEDICATION		
	<i>Lepa</i>	<i>Ghrit&Tail</i>	<i>Asav-Arista</i>	<i>Vati</i>
1	<i>Avalgujadi lepa¹⁵</i>	<i>Tikatak Ghrit¹⁶</i>	<i>Kanak-bindu Aristha¹⁷</i>	<i>Arogyavardhini Vati¹⁸</i>
2	<i>Bhallatakadi lepa¹⁹</i>	<i>Jyotismati Tail²⁰</i>	<i>Khadiradi Kashaya²¹</i>	<i>Vijeyeswar Ras²²</i>
3	<i>Gunjadi lepa²³</i>	<i>Kustharakshash Tail</i>	<i>Dhatri-khadir Quath²⁴</i>	<i>Shashilekha Vati²⁵</i>
4	<i>Manahshiladi lepa²⁶</i>	<i>Aragwadhadi Tail²⁷</i>	<i>Khadirarista²⁸</i>	<i>Chandraprabha Vatika²⁹</i>
5	<i>Triphaladi lepa³⁰</i>	<i>Vish Tail³¹</i>		<i>Avalgujadi Gutika³²</i>
6	<i>Shiladi lepa³³</i>	<i>Marichyadi Tail³⁴</i>		<i>Vayasyadi Gutika³⁵</i>
7	<i>Shwitrahar lepa³⁶</i>			

DISCUSSION

Shwitra is a *Pittapradhana Tridoshaja Vyadhi*. Because the disease progresses quickly, it's important to act quickly to stop the pathogens from spreading. All three types of treatment, *Apakarshana*, *Prakruti Vighatana*, and *Nidana Parivarjana*, must be followed while treating in *Shwitra Roga*. The *Bhrajaka Pitta* is important for re-pigmenting of white spots. Selection of *Ushna*, *Tikshna*, *Sara*, *Sukshma Guna*, and *Katu-Tikta Pradhana Rasa Dravya* to increase *agni* and aid in the removal of *srotavarodha* and *sanga*, as well as medications with *Lekhana*, *Ropana*, and *Varnya* characteristics. The property of *Lekhana* is blister formation, *Ropana* is blister healing, and *Varnya* is melanogenesis enhancement. By activating the *Bhrajaka pitta*, *Doshas* and *Dhatu*s are brought into balance, and the *Shwitra Samprapti* chain is effectively broken.

The line of treatment for *Shwitra* is *Bahya* and *Abhyantar* uses of *Kusthaghna Dravya* based on the patient's signs and symptoms.

Bakuchi oil- *Bakuchi* oil helps control Vitis spots due to its *Kusthagna* and *Rasayana* properties as it helps in shrinking the white patches³⁷. *Bakuchi* oil is useful in infections, as it inhibits the growth of fungi and bacteria due to its antifungal and antibacterial properties. It also prevents inflammation on the skin due to its anti-inflammatory properties³⁸. It has an irritant effect on skin and mucous membrane due to major secondary metabolite found in *P. corylifolia*. It contains furanocoumarins and psoralin and has powerful effect against bacteria of skin.

Arogyavardhini Vati *Arogyavardhini Vati* is mentioned in *Rasaratna-samucchaya* for the treatment of *Kushta*³⁹. *Arogyavardhini Vati* is one of the most effective *Ayurvedic* preparations which help to manage acne or pimples due to its *Pitta* and *Kapha* balancing, and *Shothahara* (anti-inflammatory) properties. It also helps in blood purification by removing toxins due to its *Shodhan* (detoxification) property⁴⁰ The Abundance of *Triphala* also has potential antioxidant property and it acts as a skin-protective ingredient by re-building

skin structural proteins and stimulating selective youth⁴¹. It provides total health and makes the body free from all types of disease and brings a balance between the three *Doshas*.

Khadirarista⁴² – *Acacia catechu*, *Cedrus deodara*, *Psoralea corylifolia* and *Berberis aristata* are the main ingredients of *Khadirarista*. These ingredients offer blood purifier action and beneficial in skin diseases. It has been considered to have property of detoxification. It detoxifies the body and assists in excretion of accumulated toxins from the body by enhancing the liver functions. Move over, it has some ingredients which help to protect liver and repairs damaged liver cells.

Raktamokshan therapy was found effective in re-pigmenting of the hypo-pigmented maculae and patches. This therapy known to gradually increase pigmentation. It activates and stimulates the reaction of body system by which brain attention to the injurious part of skin and also stimulates the pituitary gland which is responsible for secretion of melanocyte stimulating hormone responsible for melanin formation⁴³. It helps to regulate the normal colour of skin.

Putikadi lepa⁴⁴ - *Putika* (*Karanja*), *Arka*, *Snuhi*, *Aragvadha*, and *Jati* (jasmine) are pounded with *Gou mutra* in this blend. It has *Katu*, *Tikta*, *Tiksna*, and *Usna dravyas*, as well as *Kusthaghna*, *Kandughna*, and *Tridoshahara* qualities, which aid to break the disease's pathogenesis⁴⁵.

CONCLUSION

Beauty and attraction of individual depends upon skin's health including physical and psychological health. The colour of skin plays a very important role in the society. Vitiligo is an important skin disease having a major impact on the quality of life of patients; many of them feel distressed and stigmatized by their condition. Based on symptoms it can be correlated with *Shwitra*. *Ayurvedic* management gives a blissful life by improving the immune system of the individual. *Shodhan* therapy helps to remove the root cause of the disease. It is important to recognize and deal with the physical and psychological factors of the disease to improve their healthy life and quality of it.

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