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 "Viruddhaaahar-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 Shamana 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 Asadhyya 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 become 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 patient.² 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 Samhita³, Sushruta Samhita⁴, AstangaHridaya⁵ under the heading of Shwitra with detailed description of symptoms, classification, prognosis and treatment. Medieval authors like Madhava Nidan⁶, Sarangadhara Samhita⁷ and Chakradatta⁸ also enumerated certain additional information regarding Shwitra. According to Ayurveda the main etiological factor for Shwitra is regular consumption/practice of “Viruddhaaahar-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 disease. The combination of Rakt and Pitta Dosha are mentioned as Ashaya-Ashrayabahv. 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 ‘Kilas’ 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>
<thead>
<tr>
<th>Dosha</th>
<th>Involvement of Dhatu</th>
<th>Symptoms</th>
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<tbody>
<tr>
<td>Daruna (Vataja)</td>
<td>Rakta-gata</td>
<td>Aruna Varna &amp; Krushna Varna</td>
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<tr>
<td>Aruna (Pittaja)</td>
<td>Mamsa-gata</td>
<td>Tamravarna, Roma Shatana, Vidaha</td>
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<tr>
<td>Kilasa (Kaphaja)</td>
<td>Medo-gata</td>
<td>Swetavarna, Balavan Bahusitam &amp; Sakandu,</td>
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**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, Chiktis Vaishshanya (Panchakarma with improper manner), Manasikarana like Bhaya (fear), Shoka(Grief), Krodha (anger), Chinta (worry) etc.

3. **MISCELLANIOUS CAUSES**:
   a) Due to Kulaja Nidana: Beejadushti.
   b) Due to Papkarma: Shwitra is a Karmaja Vyadhi, Acharya Charaka has described particularly Papkarma 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 Papkarma are also called as Kha-Vaigunya Karaka Nidana, and Sparshnendriya is mentioned as Adhisthna.

**PATHOPHYSIOLOGY**

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.
Samprapti according Ayurveda-

<table>
<thead>
<tr>
<th>Ahara</th>
<th>Vihara</th>
<th>AachranaJanya</th>
<th>Papkarma</th>
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<tr>
<td></td>
<td></td>
<td>Nidana Sevana</td>
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<td>TridoshaPrakopa</td>
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<td></td>
<td></td>
<td>Agni Dushti</td>
<td>Vata-Pitta &amp; Kapha</td>
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<td></td>
<td></td>
<td>Ama Utpati</td>
<td>TriyagaVahiSiraGamana</td>
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<td>Raktavaha Srotodushti</td>
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<td></td>
<td></td>
<td>Dosh-Dushya Samurchana</td>
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<td></td>
<td></td>
<td>Vaivarnaya &amp; Mandala Utpati</td>
<td>SHWITRA</td>
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No detailed Samprapti of Shwitra has been described by Acharya Charaka, Sushruta, Vagabhatta, and other Sangraha Kalina Acharyas. Only Harita has mentioned the Samprapti of Shwitra and claims that the Pitta, which is located in Twak provokes by the Vata\(^1\). The Doshas then migrate through the Triyagkata 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 Dhatu's 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 *Pitta* 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 subsides the increased *Vata Dosha*.
**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 Gun*, and *Katu-Tikta Pradhan 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* are brought into balance, and the *Shwitra Samaprapti* chain is effectively broken. The line of treatment for *Shwitra* is *Bhahya* and *Abhyantar* uses of *Kusthaghna Dravya* based on the patient’s signs and symptoms.

**Bakuchi oil**- *Bakuchi* oil helps control Vitiligo spots due to its *Kusthagna* and *Rasayana* properties as it helps in shrinking the white patches. *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 properties. 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*. *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) property. The *Abundance of Triphala* also has potential antioxidant property and it acts as a skin-protective ingredient by re-building

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

**Table no. 2: External and Internal Medication**

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<tr>
<th>S.N.</th>
<th>EXTERNAL MEDICATION</th>
<th>INTERNAL MEDICATION</th>
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<tbody>
<tr>
<td></td>
<td>Lepa</td>
<td>Ghrit&amp;Tail</td>
</tr>
<tr>
<td>1</td>
<td>Avalgujadi lepa15</td>
<td>Tikatak Ghrit16</td>
</tr>
<tr>
<td>2</td>
<td>Bhallatakadi lepa19</td>
<td>Jyotismati Tail20</td>
</tr>
<tr>
<td>3</td>
<td>Gunjadi lepa23</td>
<td>Kustharakshash Tail</td>
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<td>4</td>
<td>Manahshiladi lepa26</td>
<td>Aragwadhadi Tail27</td>
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<td>5</td>
<td>Triphaladi lepa10</td>
<td>Vish Tail31</td>
</tr>
<tr>
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<td>Shiladi lepa13</td>
<td>Marichyadi Tail34</td>
</tr>
<tr>
<td>7</td>
<td>Shwitrahar lepa36</td>
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</tbody>
</table>
skin structural proteins and stimulating selective youth. It provides total health and makes the body free from all types of disease and brings a balance between the three Doshas.

**Khadirarista** – Acacia catechu, Cedrusdeodara, 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.

**Raktramokshan** therapy was found effective in re-pigmenting of the hypo-pigmented macules 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 formation. It helps to regulate the normal colour of skin.

**Putikadi lepa** – 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, Kandugha, and Tridoshahara qualities, which aid to break the disease's pathogenic.

## CONCLUSION

Beauty and attraction of individual depends upon skins health including physical and psychological health. The colour of skin plays very important role in the society. Vitiligo is an important skin disease having major impact on 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 give a blissful life by improving the immune system of the individual. Shodhan therapy help 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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