

A REVIEW ARTICLE ON SHWITRA W.S.R VITILIGO

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ABSTRACT: Introduction: *Shwitra Kuṣṭha* is a non-infectious skin disorder described in *Ayurveda*, characterized by loss of normal skin pigmentation, It is classified under *Kuṣṭha Roga* and is caused by *Tridosha* vitiation, predominantly *Pitta and Kapha*, affecting *Rasa, Rakta, Mamsa, and Meda dhatus*. Etiological factors include *Viruddhahara*, improper lifestyle, and past karmic influences. *Shwitra* is often correlated with vitiligo a Hypopigmentation disorder impacting about 1% of global population Clinically. **Methodology:** The classical *Ayurveda* text reviewed Pathological event involved in the disease. Due to *Nidana*, *Dushya* take place and it block *raktavaha srotas* and manifested *Shwitra*. **Result:** Management emphasizes *Shodhana* therapies such as *Vamana* and *Virechana* followed by *Shamana* and *Rasāyana* measures, along with strict dietary and lifestyle regulation. The most commonly prescribed treatment for vitiligo in modern are systemic and topical phototherapy and immunomodulators such corticosteroids, calcineurin inhibitors, Vitamin D Analogues. **Discussion:** *Ayurveda* treatment focuses on correcting the underlying *Doshic* imbalance through *Panchakarma*, *Jalouvakacharna* procedure with *Shamana* treatment. While Modern therapy targets immune modulation and stimulation of melanocyte regeneration.

Key words: Shwitra, vitiligo, lepa, PUVA therapy.

INTRODUCTION: *Shwitra* is a disease where white patches appear on body. In *Ayurveda* all the skin diseases are categorized under the heading of *Kushta*. *Shwitra* is mentioned in *Kushta Roga Chikitsa* in classics. The word *Shwitra* is derived from Sanskrit word *Shweta*, which means white patch.^[1] According to *Kashyapa Samhita* '*Shweta Bhava Michanti Shwitram*'.^[2] It is also called as *Kilasa, Daruna, Aruna* and *Shweta Kushta*. *Bhrajaka Pitta* which is situated in the skin is responsible for *Chaya* and *Prabha* of *Twacha* (skin). Any impairment of *Bhrajaka Pitta* and *Vata Dosha* can cause skin diseases like *Shwitra*. In *Shwitra* morbidity is located in *Medhodhatu*. Depending on the colour and *Ashraya* in *Dhatus* 3 types of *Shwitra* are mentioned i.e., if located in *Rakta* (blood) it is red in colour, if in *Mamsa* (muscle tissue) it is of coppery colour, and if located in *Medas* it is white in colour.^[3]

The skin loses colour due to a disorder called vitiligo^[4]. The lesion is known as a macule if the area of the skin losing colour is less than 1 centimetre wide and as a patch if it is greater than that^[5]. Like all other skin disorders, patients with vitiligo are considered social outcasts in various societies, which has psychological and physical impacts^[6]. Vitiligo has received very little investigations in most epidemiological studies either focus on highly

chosen contexts, such as clinical populations, or on the prevalence of comorbidity in vitiligo patients without discussing the general populations [7,8]

AIM AND OBJECTIVE

This review is to study *Shwitra* (vitiligo) in *Ayurveda* aspect in Detail.

MATERIAL AND METHOD

A complete and thorough literature search was performed utilizing electronic databases comprising PubMed, Google Scholar, Scopus, AYUSH Research Portal, DHARA (Digital Helpline for *Ayurvedic* Research Articles), and IndMED. Classical *Ayurvedic* literature, incorporating *Sushruta Samhita*, *Charaka Samhita*, *Ashtanga Hridaya*.

NIDHANA^[9]

- *Vachahansthyani* (Harmful speech)
- *Kritaghanbhao* (Ingratitude)
- *Ninda Surana* (Disrespecting or criticizing divine/holy entities)
- *Guru Adharsanam* (Disrespecting teachers)
- *Paapkriya* (Sinful or unethical actions)
- *Virodhi Anna* (Incompatible diet)
- *Purvajanmakrita Karma* (Actions of previous birth)

SAMPRAPTI^[10]

Agnidushti vata+pitta+kapha+Rasa

(*Jatargani dushti results in vidagdajeerna*)



Aama utpatti



Vata+Pitta+Kapha+Rasa+

+Mamsa+Meda dushti



Tiryaqsiragamana



Dhatwagni vikruti (Rasa, Rakta, Mamsa, Meda)



Raktvaha srotas vaigunya



Twak vaivarya



shwitra

SAMPRAPTI GHATAKA^[11]

- *Dosha – Tridosha*
- *Dushya – Rasa, Rakta, Mamsa, Meda*
- *Ama – Jataragni Janya Ama*
- *Agni – Jataraagnimandhya, Dhatwagnimandhya*
- *Srotas – Rasavaha, Raktavaha, Mamsavah*
- *Srotas dusti prakara – Sanga*
- *Rogamarga – Bahya*
- *Udbhava stana – Amashaya*
- *Vyakta Sthana – Twacha*
- *Roga Swabhva – Chirakari*
- *Sadhyasadyata – Yappa*

TYPES OF SHWITRA^[12]

Acharya charaka – 3

TYPES	LAKSHA
Daruna (<i>Kapha</i> dominance)	Pure white patches
Charuna (<i>Rakta</i> involvement)	Reddish patches
Switra(<i>Pitta</i> dominance)	White patch with coppery

Acharya Vagbhata -3^[13]

LAKSHANA OF SHWITRA ACCORDING TO DOSHA^[14]

TYPES	LAKSHAN
<i>Vataja</i>	<i>Ruksha(dry), Aruna Varna(light red)</i>
<i>Pittaja</i>	<i>Tamram Kamalapatravat (copperycolor) resemble a lotus petal, Sa Daham (Burning sensation), Romadvanshi(Destruct of hair of body)</i>
<i>Kaphaja</i>	<i>Swetam(white), Ghanam(thick), Guru(heavy), Kandu (itching)</i>

SADHYA ASADHYATA^{[15][16]}

<i>Sadhya -Asadhya</i>	<i>Acharya Charak</i>	<i>Acharya Vagbhata</i>
<i>Sadhya</i>	<i>Araktaloma, Tanu, Pandu, Nati Chirothitam</i>	<i>Ashukla Roma, Abahala, Asansristam</i>
<i>Asadhya</i>	<i>Raktaloma, Paraspartoabhinnam, Varshaganouttapannam</i>	<i>Guhya, Pani, Tala, Ostha</i>

MANAGEMENT ^[17]

- *Nidana parivarjan* - Avoid incompatible Diet and lifestyle
- *Shodana Chikista*
 1. *Virechan* :It removes vitiated *Pitta* and *Rakta* dusti .These therapies help Remove the root cause and prepare body for *Shaman Chikitsa*(Pacifying medication)
 2. *Vamana* : It cleans the body and restore *Dosha* balance .It remove harmful *Dosha* especially *Kapha Dosha* .It posses *sukshma guna* penetrate micro channels to eliminate toxin and also balance *Agni*.
 3. *Raktamokshan* : *Jaloukavacharana* procedure is used to remove vitiated blood is suitable for *Pitta* and *Rakta* dominated condition.
- *Shamana Chikista* ^[18]

FORMULATION	ACTION
GUNJA Phaladi lepa	<i>Rakta shodhaka</i> and antiinflammatory
KHADIRAARISTA	<i>Rakta Shodhaka</i> . It is immunomodulatory ,blood purifying it eliminates toxins .
MANJISTA	<i>Rakta shodhaka</i> (blood purifier).Include Varnya,Kapha pitta shamaka,shothhar
AROGYA VARDINI VATI	Its function as dhatu poshak , Antioxident ,Antipruritic.
MAHATIKTA GHRUTA	It has <i>Tikta</i> dominace making effective in balancing <i>kapha dosha</i> It lubricate and soften the <i>dosha</i> and restore <i>dosha</i> .
AVALAGUJA BEEJA	Stimulate melanogenesis,photosensitizing
BAKUCHI OIL	Antioxiden,Stimulate melanocyte responsible for melanin production

Vitiligo

Vitiligo is an acquired pigmentary skin disorder caused by the absence of pigmentary cells from the epidermis that results in white macules and patches on the body.

ETIOLOGY

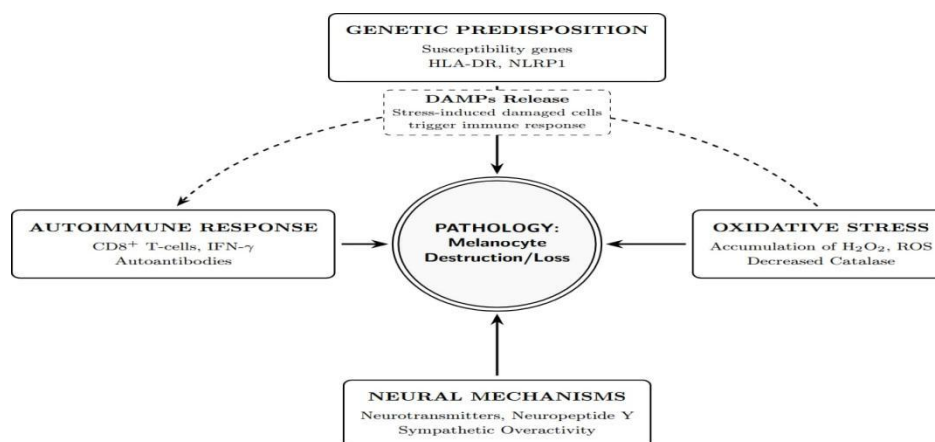
Vitiligo occurs when pigment-producing cells (melanocytes) die or stop producing melanin - the pigment that gives skin, hair and eyes color. The involved patches of skin become lighter or white. It's unclear exactly what causes these pigment cells to fail or die. It may be related to:

- A disorder of the immune system (Autoimmune condition).
- Family history (Heredity).
- A trigger event, such as stress, severe sunburn or skin trauma, such as contact with a chemical.^[19]

Other causes ^[20]

- Excessive intake of liquid and heavy foods for a very long time.
- Excessive eating in the condition of indigestion.
- Excessive intake of new grain, curd, fish, sesame seed, salty and sour food, milk, jaggery .
- Suppression of the natural urges specially vomits.
- Severe physical exercise in excessive heat and after taking very heavy meals.
- *Panchakarma* complications (Incorrect application of body purification therapy).
- Drinking cold water or having cold bath immediately after direct contact of heat.
- Having coitus in state of indigestion.
- Daytime sleep.

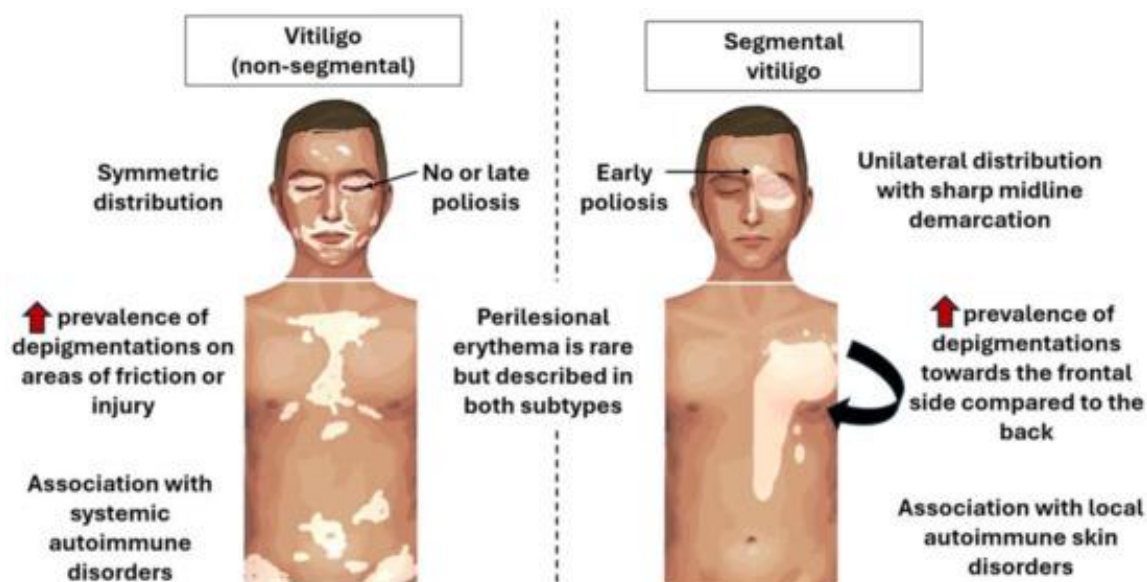
PATHOLOGY



Sl no	Factors	Cause	Result
1	Autoimmunity ^[21,22]	Cytotoxic T Cell	Biochemical & Enzyme changes immune dysfunction
2	Genetic factors ^[23,24,25]	ACE,CAT,CTLA -4	Change in gene expression
3	Cellular factors ^[26,27]	Oxidative stress	DNA Damage, synthesis of defective protein
4	Neural factor ^[28,29]	Catalase Enzyme	Damage melanocyte

CLASSIFICATION OF VITILIGO^[30]

Classification	Definition	Subtypes
Segmental	Unilateral, localized depigmented macules distribution along with dermatome or segmented of the body	Bisegmental/unisegmental/plurisegmental
Non segmental	Bilateral, symmetrical depigmented macule with chronic progression associated with autoimmune disorder	Generalised/acrofacial/universal/mucosal/mixed



SYMPTOMS ^[32]

Non segmental type

1. Milky-white, well-defined patches on skin, varying in size, appearing anywhere but common on face, hands, arms. (Non segmental type)
2. Patches often mirror each other on both sides of the body (symmetrical distribution). Commonly appear on face, hands, finger, wrist, elbow, knee, around body opening [eyes, nose, mouth, genitals (non-segmental type)].

3. Premature whitening/graying of scalp, eyebrows, eyelashes, or beard in affected area. (Leukotrichia)
4. Patches may enlarge, increase in number, and spread over time (Progressive spreading)

Segmental type

1. Patches usually appear on only one side of face ,trunk, or leg.
2. Hair within the affected area may also turn white (leukotrichia)
3. Affected skin gets sunburns easily and can be painful.(Photosensitivity)
4. Through mild itchy sensation on the white patches.
5. Patches may enlarge, increase in number and spread over time and stabilize (Progressive spreading).

DIAGNOSIS ^[33]

1. Clinical examination
2. Woods Lamp
3. Skin biopsy

MODERN MANAGEMENT ^[34]

Topical therapy

- Corticosteroids (firstline for localized lesions):Betamethasone, clobetasol
- Calcineurin inhibitors (tacrolimus/pimecrolimus for face & sensitive areas): Tacrolimus, pimecrolimus

Phototherapy

- Ultraviolet B (UVB) - Short wave ultraviolet radiation to treat skin condition. Phototherapy works by suppressing DNA Synthesis which reduce inflammation. Narrowband UVB phototherapy is increasingly used treatment of choice for generalized vitiligo
- PUVA (less commonly used)

Systemic therapy

- Oral corticosteroids (mini-pulse) to halt progression

Surgical treatment (stable cases)

- Skin grafting
- Melanocyte transplantation

Depigmentation therapy

- Monobenzyl ether of hydroquinone in extensive disease

Supportive care

- Sunscreen, camouflage, psychological support

RESULT

Approximately one quarter of patients with vitiligo have the onset before 10 years of age. Genetic, immunological, neurogenic and environmental factors may have a role to play in the pathogenesis. Vitiligo typically presents as acquired depigmented, well-demarcated macules/patches that appear milk- or chalk-white in color. Lesions tend to increase in number and enlarge centrifugally in size with time. Sites of predilection include the face, followed by the neck, lower limbs, trunk, and upper limbs. The clinical course is generally unpredictable. In children with fair skin, no active treatment is usually necessary other than the use of sunscreens and camouflage cosmetics. If treatment is preferred for cosmesis, topical corticosteroids, topical calcineurin inhibitors, and narrowband ultraviolet B phototherapy are the mainstays of treatment.

DISCUSSION

Ayurveda and modern medicine approach Shwitra (Vitiligo) from different perspectives but share the common goal of controlling disease progression and promoting repigmentation. The treatment emphasizes correcting the underlying doshic imbalance through Panchakarma procedures such as Vamana, Virechana, and Jalaukavacharana (leech therapy) in selected cases, followed by Shamana Chikitsa using herbal formulations. These therapies aim to detoxify the body, improve tissue metabolism, purify Rakta, restore skin pigmentation. In contrast, modern medicine considers vitiligo an autoimmune disorder characterized by immune-mediated destruction of melanocytes. Treatment primarily focuses on suppressing the autoimmune response and stimulating melanocyte regeneration. Common therapies include topical corticosteroids, calcineurin inhibitors, vitamin D analogues, phototherapy (NB-UVB or PUVA), and, in selected cases, surgical grafting or JAK inhibitors. An integrative approach combining evidence-based Ayurvedic therapies with modern dermatological management may provide better clinical outcomes by addressing both systemic factors and local skin changes. However, well-designed randomized controlled trials are needed to establish the efficacy and safety of Ayurvedic interventions such as Jalaukavacharana and Panchakarma in the management of Vitiligo.

CONCLUSION

Shwitra described in Ayurveda under *Kuṣṭha Vikāra*, closely correlates with vitiligo or leucoderma in modern Dermatology. Both systems recognize it as a chronic, non-contagious pigmentary disorder characterized by loss of Normal skin color due to dysfunction or destruction of melanocytes. *Ayurveda* explains the disease through *Doṣa-Duṣya saṁmūrchana*, predominantly involving *Vāta*, *Pitta* (*Bhrajaka Pitta*), and *Kapha*, with vitiation of *Rasa*, *Rakta*, *Mamsa*, *Meda*, and *Tvak*, leading to *Varṇa Vikṛti*. *Nidāna* such as *Viruddha Ahāra*, *Pāpa karma*, suppression of natural urges, and improper lifestyle play a significant role in disease manifestation.

Modern science attributes Vitiligo to autoimmune mechanisms, genetic predisposition, oxidative stress, and Environmental triggers, which aligns with *Ayurvedic* concepts of *Agni-Mandya*, *Srotoduṣṭi* and impaired *Dhātu* Metabolism. The *saṁprāpti* described in *Ayurveda* clearly reflects the progressive nature of the disease as understood in Contemporary pathophysiology. Management of *Shwitra* requires a holistic and individualized approach. *Ayurveda* emphasizes *Shodhana* therapies like *Vamana* and *Virechana* followed by *mṛdu virechana*, along with *śamana* therapies, *pathya-āhāra*, and lifestyle Modifications. Modern treatment focuses on repigmentation through topical agents, phototherapy, newer Immunomodulators, and supportive psychological care. Prognosis depends upon chronicity, *doṣa* involvement, site, and Associated features, as described in both Ayurvedic and modern texts.

REFERENCE

1. Barman S, Switra and its treatment in veda, Ancient Science of life, 1995, XV (1), 71-74.
2. Tewari PV, Kshayapa Samhita, Chikitsastana, 9th chapter, Sloka 2, Choukhamba Visvabharati, Varanasi, reprint-2008.
3. Charak Samhita by Dr. Gorakhnath Chaturvedi, Chaukhamba Bharti academy, Varanasi, Reprint 2023. Chikitsa Sthan chapter 7, shloka no.9-10.
4. . Arthi, G.; Lakshmanakumar, V.; Rathinam, J.; Sivaraman, D. Molecular docking analysis to validate the efficacy of phytocom-Pounds of traditional siddha herb Glycyrrhiza glabra against enzyme tyrosinase for the treatment of vitiligo. TMR Integr. Med.2022, 6, e22032. [CrossRef]
5. Medicine, S.P.C.C.J.o. Vitiligo. Clevel. Clin. J. Med. 2022. Available online: <https://my.clevelandclinic.org/health/diseases/12419-Vitiligo> (accessed on 24 March 2023).
6. Hartmann, A.; Lurz, C.; Hamm, H.; Bröcker, E.B.; Hofmann, U.B. Narrow-band UVB311 nm vs. broad-band UVB therapy inCombination with topical calcipotriol vs. placebo in vitiligo. Int. J. Dermatol. 2005, 44, 736–742. [CrossRef]
7. Mohr, N.; Petersen, J.; Kirsten, N.; Augustin, M. Epidemiology of Vitiligo—A Dual Population-Based Approach. Clin. Epidemiol.2021, 13, 373–382. [CrossRef] [PubMed]
8. Marinho, F.d.S.; Cirino, P.V.; Fernandes, N.C. Clinical epidemiological profile of vitiligo in children and adolescents. An. Bras.Dermatol. 2013, 88, 1026–1028. [CrossRef] [PubMed]...
9. Charak Samhita by Dr. Gorakhnath Chaturvedi, Chaukhamba Bharti academy, Varanasi, Reprint 2023. Chikitsa Sthan chapter 7, shloka no. 177
10. Charak Samhita by Dr. Gorakhnath Chaturvedi, Chaukhamba Bharti academy, Varanasi, Reprint 2023. Chikitsa Sthan chapter 7, shloka no.9-10.
Astang hridayam, by Dr. Brahmanand Tripathi, Chaukhamba Sanskrit pratisthan, Delhi, Reprint 2009. Nidan sthan Chapter 14 shlok no. 2-3
11. Susrut Samhita by Kaviraj ambikadutta shastri, Chaukhamba Sanskrit sanstha, Varanasi, Nidan sthan chapter 5, Shlok no. 3
12. . Charak Samhita by Dr. Gorakhnath Chaturvedi, Chaukhamba Bharti academy, Varanasi, Reprint 2023. Chikitsa sthan chapter 7, shloka no. 173.
13. . Astang hridayam, by Dr. Brahmanand Tripathi, Chaukhamba Sanskrit pratisthan, Delhi, Reprint 2022, Nidan sthan chapter 14, shlok no. 38.Astang hridayam, by Dr. Brahmanand Tripathi, Chaukhamba Sanskrit pratisthan, Delhi, Reprint 2022, Nidan sthan Chapter 14, shlok no. 38
14. Astang hridayam, by Dr. Brahmanand Tripathi, Chaukhamba Sanskrit pratisthan, Delhi, Reprint 2022, Nidan sthan chapter 14, shlok no. 38.
15. Charak Samhita by Dr. Gorakhnath Chaturvedi, Chaukhamba Bharti academy, Varanasi, Reprint 2023. Chikitsa sthan chapter 7, shloka no. 175-176.
16. Astang hridayam, by Dr. Brahmanand Tripathi, Chaukhamba Sanskrit pratisthan, Delhi, Reprint 2022, Nidan sthan chapter 14, shlok no. 40.
17. Charak Samhita by Dr. Gorakhnath Chaturvedi, Chaukhamba Bharti academy, Varanasi, Reprint 2023. Chikitsa Sthan chapter 7.

18. <https://www.mayoclinic.org/diseases-conditions/vitiligo/symptoms-causes/syc-20355912>
19. Charak Samhita by Dr. Gorakhnath Chaturvedi, Chaukambha Bharti academy, Varanasi, Reprint 2023. Chikitsa Sthan chapter 7, shloka no 4-8
20. Kemp, E.H.; Waterman, E.A.; Weetman, A.P. Autoimmune aspects of vitiligo. *Autoimmunity* 2001, 34, 65–77. [CrossRef]
21. Dwivedi, M.; Kemp, E.H.; Laddha, N.C.; Mansuri, M.S.; Weetman, A.P.; Begum, R. Regulatory T cells in vitiligo: Implications for pathogenesis and therapeutics. *Autoimmun. Rev.* 2015, 14, 49–56. [CrossRef]
22. Czajkowski, R.; Męcińska-Jundziłł, K. Current aspects of vitiligo genetics. *Adv. Dermatol. Allergol. Postępy Dermatol. I Alergol.* 2014, 31, 247–255. [CrossRef] [PubMed]
23. Kemp, E.H.; Waterman, E.A.; Weetman, A.P. Autoimmune aspects of vitiligo. *Autoimmunity* 2001, 34, 65–77. [CrossRef]
24. Arora, A.K.; Kumaran, M.S. Pathogenesis of vitiligo: An update. *Pigment Int.* 2017, 4, 65.
25. Kemp, E.H.; Waterman, E.A.; Weetman, A.P. Autoimmune aspects of vitiligo. *Autoimmunity* 2001, 34, 65–77. [CrossRef]
26. Arora, A.K.; Kumaran, M.S. Pathogenesis of vitiligo: An update. *Pigment Int.* 2017, 4, 65.
27. Ezzedine, K.; Lim, H.W.; Suzuki, T.; Katayama, I.; Hamzavi, I.; Lan, C.C.E.; Goh, B.K.; Anbar, T.; Silva de Castro, C.; Lee, A.Y. Revised classification/nomenclature of vitiligo and related issues: The Vitiligo Global Issues Consensus Conference. *Pigment Cell Melanoma Res.* 2012, 25, E1–E13. [CrossRef]
28. Ezzedine, K.; Le Thuaud, A.; Jouary, T.; Ballanger, F.; Taieb, A.; Bastuji-Garin, S. Latent class analysis of a series of 717 patients with vitiligo allows the identification of two clinical subtypes. *Pigment Cell Melanoma Res.* 2014, 27, 134–139. [CrossRef]
29. Kasper, D. L., Fauci, A. S., Hauser, S. L., Longo, D. L., Jameson, J. L., & Loscalzo, J. (2022). *Harrison's Principles of Internal Medicine* (21st ed.). McGraw Hill. (Chapter: Disorders of Pigmentation – Vitiligo)
30. https://www.researchgate.net/figure/Clinical-presentations-of-vitiligo-non-segmental-and-segmental-vitiligo-Segmental_fig2_383729809
31. https://www.researchgate.net/figure/Clinical-presentations-of-vitiligo-non-segmental-and-segmental-vitiligo-Segmental_fig2_383729809
32. Dr. Mukesh kumar Bisen, Dr. Sudha Rani Verma, Dr. Akash Sonwani, Dr. Khijju kumar Singroul, Dr. Dhaneshwar Sahu, Dr. Amisha Bhagat, Dr. Bhawna Kashyap, Dr. Didineshwari Patel, Dr. Saumya Harmukh, Dr. Kumeshwari Singroul. (2026) SWITRA AND VITILIGO: AN INTEGRATIVE REVIEW OF AYURVEDIC AND MODERN PERSPECTIVES. *World Journal of Pharmaceutical Science and Research*, 5(1), 145-153
33. <https://pmc.ncbi.nlm.nih.gov/articles/PMC5362109/>
34. <https://dermnetnz.org/topics/puva-photochemotherapy>

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