ROLE OF KHADIR-AMALKI KASHAY PANARTH AND BAKUCHI LEP IN SHWITRA - A CASE STUDY

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ABSTRACT
Background- According to Ayurveda shwitra simple meaning is Twakvaivarnyata (Stvetabh, shwetabhrakta, raktabhishweta, raktabh). Vitiligo affecting nearly 1- 1.5 % of the world’s population, it is estimated between 3-4% in India, although an incidence as high as 8.8% has also been reported, irrespective of the races especially to dark skinned people¹. The incidence is a little more eminent in India. It occurs in males and females of all ages but most often the onset in females. Case history- 63 years old female patients come with complaints of white patches over Left side of neck region since 5-6 years. Initially a small patch started on neck region then gradually increased in size. Examination- White milky patches no pain, secretion & elevation. Diagnosis- appearing in later in life well deigned depigmented macula without scaling. Material & Method - The effective classics chikitsa of shwitra consist both Antaparimarjana (Khadiramalkikashay 40 ml Bd with bakuchi churna 2gm prakshepanarth) and Bahirmarjana chikitsa (Bakuchi churna lepanarth and bakuchi tail local application). Which given for 6 months. Observation & Result- Patch on neck region has totally gone off. The white patch has totally replaced with normal skin colour

Keywords: Shwitra, Vitiligo, kushtha,Khadiramalkikashay, bakuchi churna

INTRODUCTION
Shwitra has been listed to be the worst amongst Kushtha to cause disfigurement of the body. Shwitra is considered as one of the varieties of Kushtha in the Ayurvedic Classics, caused vitiation of Tridoshas and Dhatus like Rakta, Mansa and Meda. The condition which has white colour vitiated in skin is called ‘Shwitra’. Acharya Charaka has listed the Shwitra under the Rakta Pradoshaja Vikara based on symptoms², Shwitra can be correlated with Vitiligo. Vitiligo is such a common chronic and progressive skin disease characterized by the lack of melanin pigments producing skin patches with sharp and often hyper pigmented edge. Vitiligo is the problem described in the modern medicine as auto immune disease which manifest as white spot on the skin. Ayurveda has incorporated this condition into the broad heading of Shwitra. The Shwitra is the group of symptoms which manifest as the spot on
the skin and causes cosmetic imbalance body which ultimately leads to many socialized psychological stigma in life of the patient.

**Nidana (Etiology)**

The causative factors for *kusta* (skin diseases) and *Shwitra* (vitiligo) are the same\(^1\) and affect the same basic body tissue (*dhatu*) levels. *Shwitra* resulting in discoloration of the skin (*twakvaivarnyata*), without discharge (*aparisravi*)\(^3\).

1. *Viruddhahara* - Chronic or acute gastric diseases
2. *Atibhojana* (excess food intake)
3. *Atyamla*, *lavana*, *madhura*, *katurasasevana* - Deficiency of calcium (Alcohol, sour, salty foods are catalysts for calcium flushing, As calcium levels in the blood decrease, the body extracts (resorbing) calcium from the bones to obtain the calcium it needs to function properly. Calcium flushing can make the bones porous, which can lead to the development of osteoporosis.
4. *Navanna*, *dadhi*, *matsyabhakshana* (heavy intake of fresh grains, curd and fish)- Impairment of hepatic or liver function (which causes obesity, metabolic disorder and increased intra hepatic triglycerides further which causes impaired hepatic function), worm infestation
5. *Vipra-guru gharshana* (teasing and disrespecting the elders), *Papakarma* (sinful acts).
6. Excessive stress, tension and worry\(^4\)

**Samprapti**

**Origin of shwetakushta**

*Twacha* is the part of the body, which completely cover the *Meda, Shonita* & other *Dhatu* & get spread upon the body. *Acharya Vagbhatta* described that *Vata* is causative factor for *Twacha* and its sensory function. *Agni* use for *Rupa, Varna* and *Pitta*\(^5\). So *Vata* and *bhrajaka pitta* reside in the *twak*. Due to the above said reasons, all the three *doshas* are aggravated in association with skin, *rakta, Mamsa* and *Udaka*, these *Dushita Doshas* get mixed with *Rasadhatus* and spreads from one *Dhatu* to next *Dhatu*. Then these *Doshas* move in *Tiryakgata Siras* and get lodged in *Tamra* layer of *Twacha* causing Vikruta of the local *Rasavaha* and *Raktavaha Srotas*. The reason behind *Dosha-Dushya Sammurchana* in *Tamra* layer of *Twacha* is due to the presence of *Khavaigunya* in the respective areas of *Twacha*. This leads to *Kshaya* of local *Bhrajaka Pitta* and causes *Twak Shwetata*.\(^6\)

**Chikitsa**

*Samprapatatbahnaga–Nidanaparivarjan, Shodhana and Rasanyana*

*Shodana chikitsa* – Strong detoxification *Panchakarma* procedures should be done. *Vamana, Virechana, Rakta mokshana* using leeches are recommended.

*Shamana Chikitsa* – done through oral medications and external applications.

*Patya (Diet)* – Strict diet restrictions, lifestyle modifications, Yoga and meditation are advocated.
1. Eliminating *Ama* (toxins).
2. Correcting digestion and prescribing a proper diet, avoiding *Virudhahara*.
3. Strengthening the Immune system.
4. Creating a balance between *Doshas*, especially balancing the *Pitta Dosha*\(^7\).

**Case Report:-**

63 years female patient, house wife from Karjat came to OPD with complains of white patch over left side of neck since 5-6 years. Initially it is small patch over neck region then increases in size. There were no associated complains confined to lesions like itching or burning sensation and also no history of environment, occupation and related to contact with harmful dietary substance. Patient had received conventional treatment for a period of one year without any improvement.

**Examination**

According to the subjective criteria the patch on neck region having symptoms like *twakshwetata* (Grade 3), *twakrukshata* (grade 2), *Kandu* (Grade 1), *Daha* (Grade 2), and *Romvivrnata* (grade 2)

There is no family history of vitiligo. Her childhood history had no significant events. On
Examination it was found that she had no systemic problem; fair complexion, thin body built, Weight 48 kgs, height 154 cms. All vitals are normal

Materials and Methods

A) Materials:
1. KhadiradiKashay 8 – Khadirbharad 1 part, Amalkibharad 1 part and bakuchi churna prakshepanarth Khadiramakshayambakuchibeejanvitampibenitt yam / Shankhendukundadhavalamshwitriramhantihtacchitra m // Yo.R. Kushthachikitsa
2. Bakuchi tail
3. Bakuchi Beeja Churna lepanarth

B) Methods:
(a) Preparation of internal medication Amalaki, and Khadir were taken in equal quantity and subjected into coarse powder. Now the drug is made into Kwatha as per classics by adding water in the ratio 1:8 and reduced to ¼ quantity. It is administered according to the Vaya, Bala and Agni of the patient for the period of 7 months
Dose:- 40 ml twice in a day Kal- Adhobhakta

(b) Preparation of external application:- Bakuchi Tail applied in morning and atapsevan (Sun exposure) at 8:00 am for ½ hour daily for 7 months

Clinical Evaluation

1. Phase 1-Patient was clinically assessed bases on parameters before treatment. RogiPariksha and Bala of patient was assessed prior to treatment.
2. Phase-II - Patient was given the Kashaya as per Vaya, Bala, Agni. Kashaya 40 ml was given 2 times per day after food. (adhobhakta) Bakuchi tail applied on affected patch in morning sunlight at 8:00 am for half an hour Lepa was applied over the affected part through the aid of water twice in a day (in afternoon and in evening)
3. Observed for burning sensation or increase in pain or roughness.

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<th>Subjective criteria</th>
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<td>Symptoms at vitiligo patch</td>
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International protocol for grading of repigmentation

Grade 1: Diffuse lightening usually seen at margins (tan colour)
Grade 2: perifolicular repigmentation
Grade 3: spreading of perifolicular repigmentation
Grade 4: coalescing pigmentation with areas of repigmentation in between
Grade 5: confluent repigmentation with remnant islets of depigmentations inbetween
Grade 6: complete repigmentation

Observation and Result
The observations were recorded on the basis of gradation before and after treatment and photographs before and after treatment.
After the treatment plan of 7 months observation in symptoms as per gradation and examination of patch are following

Before Treatment                                            During Treatment                                            After Treatment

DISCUSSION
Discussion on mode of action of internal medication
The decoction of Amalaki contains the compounds which have the dyeing action. It contains tannins-gallic acid & ellagic acid. Amalaki being, Alavana pancha rasa, Sita virya and Madhura vipaka acts as Tridoshahara. Due to Rasayana and Vayasthapana property leads to formation of Prasastha dhatu which slows down the degeneration of cells and regenerates new cells as well. Even it has Kushthagna property. Switra is an auto-immune disorder. The potent immune modulator Amalaki present in Khadiramalki yoga acts against the Auto-Immune Mechanism in which antibodies against melanin were proved to be isolated from the serum of Vitiligo patients.

Khadira
Khadiraha sheetalo dantya haka kasa aruchi pranat /
Tiktaha kashayo medoghna krumimehjwaravranam //
Shwitra shothaampittasrapandu kushtha kaphan haret \// Bhā pra vatadi varga 31-32

Khadir is having Tikta, Kashaya rasa, Sita virya which alleviates Pitta kapha. Caraka Acharya mentioned it as best Kustahara dravya in Agraprakarana. It has also the properties of Switraghna, Kundugna, Kustagna, Krimihara. The decoction has the important ingredients like catecin (flavonoid), catechu tannic acid and tennis. There by Khadir helps for better absorption.

Kashay rasa of khadir holds twakprasadak and raktashodhak properties which ultimately leads to raktaprasadan and reduction of vaivarnyata of skin.

Bakuchi

Bakuchi madhura tikta katupaka rasayni Vishtambha hridhima ruchya sara shleshmaasra pitanut

Ruksha hrudyā shwaskushthameha jvar krumi pranut \// bhā pra haritakyadi varga 207-208

Bakuchi is having Madhura, Tikta, Katu, Sitavirya, Tridosahahara. Twachya, Kushthahna, Rasayana, Switragna, Krimigna. As per modern aspect Bakuchi stimulates melanocytes for the production of melanin. Bakuchi contain several types of Furocaumarins precursors such as psoralin. Furocaumarins are primary photodynamic agents. They absorb long wave ultraviolet radiations after exposure to sun light and Become photoactive.

Khadir amlaki yoga having Amalaki, Khadira and Bakuchi as Kushtaghna, Switraghna property. Along with this Amalaki and Khadira have Vyadhipratyanik effect and Bakuchi being the main drug of choice in Switra added with Amalaki which imparts the dye and Khadira helps in better absorption. Apart from above properties all the three drugs have Rasayana effect which can maintain the healthy status of Dhatu.

External application effect Bakuchi madhura, tikta rasa,katu vipaki Laghu, Ruksha guna, Sita virya, Kattu vipaka, Tridosahahara, Vishagna, Kusthagnā, kandugna. As Switra is a Pitta pradhana tridosahaja Vyadi, there is involvement of Bhrajaka Pitta which is said to be located in external skin (Bahya Twak) and responsible for color of different parts of the body.

It is responsible for digestion, metabolism and absorption of the substances which are applied over the skin. In general, it could be assumed that Bhrajaka Pitta is a substance which is responsible or related with Pigmentary system of the body. While describing about location of Pitta, Sushruta used the term Bhrajaka Agni in place of Bhrajaka Pitta and said that it is responsible for metabolism or utilization of the substances, used as external application. Acharya Sushruta said that Abhyanga, Parisheka, Lepana & Avagahana like external applications are digested by the Bhrajaka Pitta and produces its effect over the skin.

According to modern medicine Bakuchi has the effect on Melanoblast cells of skin, it stimulates Melanocytes for the production of melanin as it contains Psorallin agent. Psorallin containing substance, vata-kapha shamaka, kushthahara, krimihara and kilasahara in action. The drug appears to have a purely local action with a specific effect on the arterioles of the sub capillary plexuses, which are dilated so that the plasma is increased in this area. The skin becomes red and the melanoblasts (pigment forming cell) are stimulated Leucoderma, melanoblasts do not function properly and their stimulation by the drug leads them to form exudates pigments, which gradually diffuse into the white leucodermic patches. The exposure of affected area of skin applied with Bakuchi tail in early morning skin absorb long wave ultraviolet radiation after exposure to sunlight leads to favorable milieu for promoting the growth, migration and proliferation of melanocytes because of the interaction of ultraviolet rays with Bakuchi, it not only proliferate the melanocytes but also prevents the autoimmune activity of the disease.

CONCLUSION

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 switra.
Many Ayurvedic medicines both internal and external are known to regenerate melanocytes, among one is Khadiramalaki kashay and Bakuchi Lepa which were said in our classics. The present study is to prove the efficacies of the above mentioned Yoga. With the above mentioned Ayurvedic management give a blissful life by improving the immune system of the individual. It is important to recognize and deal with psychological components of this disease to improve their quality of life. Though a single case study may not be sufficient enough to prove significance of any treatment but it gives us an idea for the line of treatment to be adopted in such cases and helps to formulate a protocol for large sample studies.

REFERENCES
9. IOSR Journal of Pharmacy and Biological Sciences (IOSRJPBS) ISSN : 2278-3008 Volume 2, Issue 3 (July-August 2012), PP 10-13www.iosrjournals.or
10. Bhav prakash of Bhavamishra, volume 1, commentary by Dr Bulusu Sitaram, forwarded by Prof k.C. Chunekar , Chaukhamba orientalia, Varanasi shloka no 31-32 ,vatadi varga
11. Bhav prakash of Bhavamishra, volume 1, commentary by Dr Bulusu Sitaram, forwarded by Prof k.C. Chunekar , Chaukhamba orientalia, Varanasi shloka no 207-208 ,Haritakyadi varga.

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