

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* (*Stwetabh, shwetabhrakta, raktabhshweta, 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 *Dhatu* 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 same¹ and affect the same basic body tissue (*dhatu*) levels. *Shwitra* resulting in discoloration of the skin (*twakvaivarnyata*), without discharge (*aparivravi*)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 worry⁴

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 *Rasadhatu* 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

Samprapatibahnaga–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 *Viruddhahara*.
3. Strengthening the Immune system.
4. Creating a balance between *Doshas*, especially balancing the *Pitta Dosh*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 *Romvivrata* (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*

Khadiraamlakkashayambakuchibeejanvitampibenitt yam /

Shankhendukundadhavalamshwitramhantihtacchitra 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 *Kala- 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

Subjective criteria

Symptoms at vitiligo patch	Grading		
<i>TwakShwetata</i>	Grade 0	Normal	Normal Skin colour
	Grade 1	Mild	Less depigmentation at margins & more pigmentation over lesion
	Grade 2	Moderate	Depigmentation is more than pigmentation
	Grade 3	Severe	No pigmentation ,totally white colour
<i>TwakRukshata</i>	Grade 0	Normal	No dryness
	Grade 1	Mild	Dryness on exposure to sunlight and other allergens
	Grade 2	Moderate	Dryness during exposure to cold environment
	Grade 3	Severe	Always dryness
<i>Kandu</i>	Grade 0	Normal	No itching
	Grade 1	Mild	Dryness on exposure to sunlight and other allergens
	Grade 2	Moderate	Itching on exposure to cold environment
	Grade 3	Severe	Severe itching
<i>Daha</i>	Grade 0	Normal	No burning sensation
	Grade 1	Mild	Burning sensation on exposure to mid noon sunlight.
	Grade 2	Moderate	Burning sensation on exposure to morning sunlight and other irritants
	Grade 3	Severe	Always burning sensation
<i>Roma Vivarnata</i>	Grade 0	Normal	Normal hair colour
	Grade 1	Mild	less than 20% of hair over the lesion has Vivarnata
	Grade 2	Moderate	25-75% of hair over the lesion has Vivarnata
	Grade 3	Severe	more than 75% of hair over the lesion has Vivarnata

c) *Bakuchi Churna lepa* applied on affected part twice in a day (in Afternoon and in evening Time) for 7 months

Lepa keep until it dry.

Follow up of the patient at every month and the same medicines has continued for 7 months

Clinical Evaluation

1. Phase I-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.

International protocol for grading of repigmentation⁹

Grade 1: Diffuse lightening usually seen at margins (tan colour)

Grade 2: perifollicular repigmentation

Grade 3: spreading of perifollicular 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

During each follow up the symptoms were also reduced and the size of patch has also been reduced gradually

During the treatment the *twakshwetata* at patch on grade 2, after completion of treatment the *twakshwetata* is on grade 0

During the treatment the *twakrukshata* at patch on grade 1, after completion of treatment the *twakrukshata* is on grade 0

During the treatment the *Daha* at patch on grade 1, after completion of treatment the *Daha* is on grade 0

During the treatment the *kandu* at patch on grade 1, after completion of treatment the *kandu* is on grade 0

During the treatment the *Romvivr nata* at patch on grade 1, after completion of treatment the *Romvivr nata* is on grade 0

According to the photographs of the patch over left side of neck region repigmentation started gradually increasing from grade 1 to grade 6

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 *Tridosahara*. 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 *Kushthagha*

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*¹⁰

Khadiraha sheetalo dantyaaha kandu kasa aruchi pranut /

Tiktaha kashayo medoghna krumimehajwaravranam //

Shwitra shothampittasrapandu kushtha kaphan haret // Bha 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, Kandugna, Kustagna, Krimihara*. The decoction has the important ingredients like catechin (flavonoid), catechu tannic acid and tennin. There by *Khadira* helps for better absorption. *Kashay* rasa of *khadir* holds *twakprasadak* and *raktashodhak* properties which ultimately leads to *raktaprasadan* and reduction of *vaivarnyata* of skin ¹⁰

Bakuchi¹¹

Bakuchi madhura tikta katupaka rasayni
Vishtambha hridhima ruchya sara shleshmaasra pitanut

Ruksha hrudya shwaskushthameha jwar krumi pranut // bha pra haritakyadi varga 207- 208

Bakuchi is having *Madhura, Tikta, Katu, Sitavirya, Tridosahara, Twachya, Kushthahna, Rasayana, Switragna, Krimigna¹²*. 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^{13,14} *Khadir amlaki yoga* having *Amalaki, Khadira and Bakuchi* as *Kushthaghna, 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, Katu vipaka, Tridosahara, Vishagna, Kusthagna, kandugna*. As *Switra* is a *Pitta pradhana tridoshaja 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 Psoralin agent. Psoralin 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 ^{15,16}

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 efficacy 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

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