

## KOKODUMBER (FICUS HISPIDA LINN.) IN SHWITRA ROGA (VITILIGO)

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### INTRODUCTION

Twelve patients of vitiligo were treated with Kokodumbar (Ficus Hipida) both orally and topically, Fine powder of the fruits of Ficus hispida were administered to the patients in the dosage of 12 grams twice a day alongwith an equal amount of Gur (Jaggery). The powder made out of the bark of the same tant was made into an ointment with Til oil (Sesame oil) and applied over the affected areas of the skin. The affected areas of the skin were then exposed to sunlight for a period of 2 to 15 minutes or to the ultraviolet light flom an artificial lamp for 1 to 10 minutes. The exposure time was gradually increased fram 10 to 15 minutes to the point of toleration treatment was continued for a period upto 10 months in different patients.

Marked improvement was seen in 16.7% cases, moderate improvement in 33.3% slight improvement in another 33.3% and no improvement in the rest 16.7% of patients.

A study of ancient epic literature (e.Artharveda, Charak, Sushrut Samhita, Vagbhat etc.) reveals that the disease now as

vitiligo, (Shwitra Roga) existed in the world in the past. There are many references to descriptions of this disease and also to various formulations of its cure in Classical Medical Literature.

Currently the disease vitiligo is prevalent in many parts of the world and has become a problem for the human beings. There is no country in the world spared from this disease. 0.14% to 3% of total population of human beings is suffering from vitiligo which is hated & despised in the hands of the society. Great scientists of the world have searched several drugs & are even searching today, but no medicine has proved satisfactory in total eradication of the disease.

There are various drugs described in the Ayurvedic texts claimed as useful in the treatment of vitiligo. These drugs may be classified into three groups, viz, herbal, or drugs from vegetable sources, drugs from animal sources and metallic drugs.

Among the herbal drugs there are innumerable herbs mentioned in different prescriptions, but the following two herbs are of common denominator among all the formulations.

1. *Ficus hispida* (kakodumbar, kathagutar).
2. *Psoralea corylifolia* (Bakuchi or Vavachi)

The action of the *Psoralea corylifolia* is well established. It was therefore, decided to study efficacy of *Ficus hispida* in patients of vitiligo and to evaluate phototoxic properties of the drug.

## MATERIAL AND METHOD

There were twelve patients of vitiligo in all treated by *Ficus hispida*. Fine powder of the fruits of *Ficus hispida* was prepared and administered to the patients of this group in doses of twelve (12) gms. twice daily with equal quantity of Gur (Jaggery); four persons of an average weight of 60 kg. The powder of bark of *Ficus hispida* was also applied to the lesions of vitiligo in the form of an ointment with Til oil. The lesions where ointment was applied were covered with piece of polythene and bandaged. The topical applications were made during night in each case and next day in the morning the bandages were removed and then the vitiligious lesions of the skin were exposed to either sun-rays or ultraviolet rays. The exposure of uv. light extended from 1 to 10 minutes and exposure to sun-rays from 2 to 15 minutes. These exposures were done in a graduated manner. Starting from one minute and

gradually increasing to 10 to 15 minutes. This treatment was instituted for one month to one year. The assessment of the Progress was made by the examination of the patients clinically on the basis of the changes in the colour of the skin of the lesions.

### **Criteria of Selection**

Cases for the present study were selected from the outdoor patients. During this period of treatment they were not allowed to take any other drugs.

The cases were selected purely on the basis of clinical findings and detailed clinical histories were prepared on the proformas. The diagnosis of the disease vitiligo was made purely on clinical ground. Other laboratory and radiological examinations were not done in any of our patients. However, we did some investigations regarding the haemogram of the patients (TLC, DLC, Hb%, ESR, Total RBC, Blood grouping) Routine and microscopic examinations of stool and urine in many cases in the beginning, as no definite abnormality was detected in the above mentioned specimens, we intentionally discontinued in our cases. The laboratory investigations which are needed as routine elsewhere in medical cases were only done.

### **Criteria of assessment**

As it has been mentioned above the assessment of progress during the study was based on the examinations of the patients clinically. The changes of the colour of the skin was the only criteria to assess the progress. These changes in the colour of the vitiligious lesions of the patients were categorised into four groups -

1. Depigmentations,
2. Hypopigmentations
3. Hyperpigmentations and
4. Erythematous

The progress of some of the cases was assessed after a week, in some after a fortnight and in some, after one or three months.

On the basis of response of treatment given, the results were assessed in four groups viz. cured, improved, no change and LAMA.

### **Cure**

When the lesion of the skin totally disappeared and the skin took its normal colour.

**Improved**

When the patch became of red colour (Erythematous) size of the patch became small and a few small patches disappeared completely.

**No change**

When there was no change in the colour of the lesions inspite of a fortnight treatment.

**Lama**

When lesion shows good response during the treatment but left the treatments of their own accord against medical advice.

**RESULTS**

On the basis of the above-mentioned facts study was carried on in twelve cases and results were recorded.

**Follow up**

We have follow up all cases under our clinical trial for three to six months and the results given in this study is based on a follow-up of three to six months.

The total number of patients included 9 males, 2 females and one child. Their ages varied from 7 to 55 years. The duration of illness varied from 6 months to 14 years. Although the majority of the patients showed a generalised distribution of lesions involving hands, feet, face, hips, back, lips, neck, ear, head & chest. No lesions of the nose, axillae and genitals were taken during this study.

**CLINICAL OBSERVATIONS**

*Ficus hispida* was administered orally and topically in 12 patients of vitiligo. Out of these patients two showed marked improvement in pigmentation of lesions. Four cases showed moderate improvement and four cases showed slightly improvement. Two cases left away during treatment and no result was assessed in these cases. In short, marked improvement in 16.7% moderate improvement in 33.3%, slight improvement in 33.3% and no response was observed in 16.7% of cases. Patients of this group were treated from one month to one year.

**CONCLUSION**

On the above mentioned trials the following important clinical observations regarding the response of treatments were made.

1. The Drugs were effective in the treatment of the disease and the response was specific and more than 50% of the patients attained rapid pigmentation.
2. Satisfactory responses were obtained in patients suffering from the disease for a long period of many years and in the patients who had vitiligo of much shorter duration.
3. Equal responses were seen in the cases of varied age, sex, community, and social status. Hence there was no relation between the sex, age, community, and social status of the patients and the rate of response.
4. Lesions of the neck, leg, hand, chest responded rather rapidly while the lesions of the lips and hip were slow to respond.
5. Solar or ultraviolet exposition alone without the drug had no effect.
6. Rapid repigmentation was observed in the patients where Erythema was produced by sun rays or ultra violet rays. Therefore, production of Erythema is helpful for better pigmentation of the lesions.
7. Change of the lesions i.e. repigmentations were observed in some cases after two weeks while in others it took six weeks.
8. Repigmentation spots may first appear darker, then lighter to attain the normal colour of the skin.
9. Ideally dose of ficus hispia 12 gms. to 24 gms. per day was found to be the optimum dose for an adult of average weight giving the full therapeutic effect without any toxic symptoms or untoward reactions even if used for long periods.
10. The dose of topical application is not essential to be verified A thin layer of the topical application is sufficient to get good response.
11. The Etiopathological concept of Ayurvedic text was found correct, that Shwitra is a kapha prominent disease and Medo Dhatu is mainly involved in its causation. This observation was made during our studies also.

The related tables and charts are given below.

**Table: Table showing personal data of the cases treated with Ficus Hippida Linn.**

S.No.	Age (yrs)	Sex	Community	Vocations	Social Status	Diet Habit
1	24	M	Hindu	Student	MC	Non Veg
2	18	M	Hindu	Student	MC	Non Veg
//3	36	M	Hindu	Student	MC	Non Veg
4	55	M	Hindu	Farming	MC	Veg
5	25	M	Hindu	Labourer	PC	Non Veg
6	17	M	Hindu	Student	MC	Non Veg

7	15	F	Hindu	Domestic	MC	Veg
8	7	F	Hindu	Domestic	PC	Veg
9	26	M	Hindu	Farming	PC	Non Veg
10	32	M	Muslim	Business	PC	Non Veg
11	22	F	Hindu	Domestic	PC	Veg
12	40	M	Muslim	Labourer	PC	Non Veg

Total = 12, Hindu = 10 = 83.35%, Male = 9 = 75%, , Muslim = 2 = 16.7%, Female = 3 = 25%, MC = 7 = 58.3%, PC = 5 = 41.7%, Nonveg = 8 = 66.7%, Veg = 4 = 33.3%

M = Male, F = Female, MC = Middle Class, PC = Poor Class

**Table: Colour of lesions, colour at the Borders of Lesions, Colour of over lying hair and pigmented is land if any, with percentage.**

S.No.	Colour of Lesions			Colour of the Borders of lesions			Colour of over lying hair		Pigmented island, if any
	Depigmented	Hypo pigmented	Eryma-tous	Normal colour	Hypo pigmented	Hyper pigmented	Grey hair	Normal Hair	
1		+		+				+	Nil
2		+		+			+		Nil
3	+				+		+		Nil
4	+					+	+		only 3 patches
5			+	+				+	Nil
6		+		+				+	Nil
7		+		+				+	A few island present
8			+			+		+	Nil
9		+		+				+	Nil
10				+				+	Nil
11		+		+				+	Nil
12		+			+			+	Nil
Total	2	7	2	7	3	2	3	9	
%	16.7	58.3	25.3	66.6	16.7	16.7	25	76	

**Table: Doshaj and Dhatuj type Shwitra with their percentage (in 12 treated cases).**

Sl.No.	Doshaj type				Dhatuj Type	
	Vataj	Pittaj	Kaphaj	Raktaj	Mansaj	Medaj
1			+			+
2			+			+
3		+			+	
4	+			+		
5	+			+		
6			+			+
7			+			+
8	+			+		
9			+			+

10			+			+
11			+			+
12			+			+
Total=12	3	1	8	3	1	8
%	25	8.3	66.7	25	8.3	66.7

**Table: Showing Results (with percentage) of Ficus Hispida Linn.**

Total Cases	Marked Improvement	Moderate Improvement	Slight Improvement	No Response
	+++	++	+	-
12	2	4	4	2
100%	16.7%	33.3%	33.3%	16.7%

**Exposure Timing**

Sun rays = 2 to 15 minutes

Artificial Ultra Violet Rays = 1 to 10 minutes

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