



**A CLINICAL STUDY ON *KIKKISA* W.S.R TO STRIAE GRAVIDARUM AND ITS  
MANAGEMENT WITH *KARAVIRADI* CREAM**

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**ABSTRACT**

Striae gravidarum is a physiological change found in the second trimester of pregnancy particularly in the seven months due to the overstretching. It is a very major problem in the modern cosmetic conscious era. The current study is an attempt to understand the ailment according to *Ayurvedic* ethics and to evaluate the efficacy of *Karaviradi cream* in *Kikkisa*. Total 17 patients were registered for this study, 15 completed the course of treatment while 2 patients discontinued due to various personal reasons. *Karaviradi* cream was used as local application on the area of abdomen, thigh and breast (where possibilities of *Kikkisa* appears) as required (Appx 10 gram) twice in a day for two months. After completion of treatment, in overall effect of therapy, 26.67% of patients got no occurrence, 60% patients had mild occurrence, while 13.33% of patients got moderate occurrence. None of the patients had found severe Occurrence. *Karaviradi* cream is a highly effective for preventive *Kikkisa* with no apparent evidence of complication.

**KEYWORDS:** Ayurveda, *Karaviradi cream*, *Kikkisa*, striae gravidarum.

**INTRODUCTION**

*Kikkisa* is a one of big problem during pregnancy, which affect to women's beauty. Seventh month onwards the uterus enlarged due to growing foetus and produce stretching of abdominal skin. Due to these stretching linear lines appear over the skin of abdomen, breasts and thigh known as *Kikkisa* (striae gravidarum). About more than 90% of total woman populations are affected by some over stretch marks on the body particularly on the abdomen, groin and on the chest region during and after pregnancy, which remains rest of life.<sup>[1]</sup> It is a very major problem in the modern cosmetic conscious era. For the cosmetic point of view woman should be taken into care for prevention of measures not to develop the disease *Kikkisa*. So to prevent this disease, there is a need to develop a new cosmetic branch in *Ayurvedic* science. Even then *Ayurvedic* management and treatment is very beneficial for the natural skin and body care. This study was an effort to understand the disease according to

*Ayurvedic* principles and evaluate the efficacy of *Karaviradi* cream in preventive aspect of *Kikkisa*.

**AIMS AND OBJECTIVES**

1. To study the concept of *Kikkisa*.
2. To evaluate clinical efficacy of *Karaviradi* cream in *Kikkisa* as preventive aspect.
3. To evaluate the occurrence of symptoms in *Kikkisa*.

**MATERIALS AND METHODS**

Patients attending the Outdoor Patients Department of Streeroga & Prasootitantra, I.P.G.T. & R.A. Jamnagar, were incorporated into the study irrespective of caste, religion etc. A suitable research proforma prepared for the assessment of therapy by adopting suitable grading pattern. A written and informed consent was taken from the patient before the commencement of treatment. Total 17 patients were registered, out of them 15 patients completed the course of treatment.

**Study design**

Study type:	Intervention
Purpose:	Prevention
Masking:	Randomised single blind clinical trial
Timing:	Prospective
End point:	Efficacy and safety

**CRITERIA FOR SELECTION OF PATIENTS****Inclusion Criteria**

1. Pregnant women of age group between 20 – 40 years.
2. Period of pregnancy from 6<sup>th</sup> months onwards
3. Primi Gravidae and multi gravidae (Previous H/o 1<sup>st</sup> trimester of pregnancy)
4. No occurrence or mild occurrence of signs and symptoms of *Kikkisa*.

**Exclusion criteria**

1. Age below 20 and above 40 years.
2. Multi gravidae & para with previous scar marks.
3. Any type of skin diseases other than *Kikkisa*.
4. Patients having chronic diseases e.g Tuberculosis, Jaundice etc
5. Any malignancy on the affected part was excluded.

**Parameter of diagnosis and assessment of results**

Diagnosis was done mainly on the basis of cardinal signs and symptoms of *Kikkisa*.

**Subjective parameters:** *Kandu, Vidaha*.<sup>[2]</sup>

**Objective parameters:** *Rekhaswaruptwaksankoch*<sup>[3]</sup>, *Twakbheda, Vaivarnyata, Vairupya*

**Other Pathological investigations**

Blood: - Routine Examination (Hb, TLC, DC, PCV, ESR)

Urine: - Routine Examination & Microscopic Examination

**Selection of drug:** *Karaviradi* cream is classical reference in *Asthang Samgraha* in the form of *Taila*,<sup>[4]</sup> but in this study it was modified in cream base. *Karaviradi* cream was prepared in *Rasashastra evam Bhaishajya kalpana* Department of I.P.G.T. & R.A.

Jamnagar. *Karavira* and *Karanja* are contains of this *Yoga* (TABLE-1).

**Course of treatment**

Local Application of *Karaviradi* cream Twice in a day as required (Appx 10 gram) on the area of abdomen, thigh and breast (where possibilities of *Kikkisa* appears) for duration of 2 months.

**Follow Up:** Follow up was conducted for one month after completion of the treatment.

**CRITERIA FOR OVERALL ASSESSMENT OF THERAPY**

- No Occurrence - 100% result
- Mild Occurrence - 76% - 99% result
- Moderate Occurrence - 51% - 75% result
- Severe Occurrence - 0% - 50% result

**DISCUSSION**

The observations of the study are presented in Tables 2 to 4

Total 17 patients were registered for the study. 15 patients completed the course of treatment while 2 patient in discontinued due to various personal reasons. Majority of the patients were belonged to the age group of 20-30 years. Because of reproductive age and most fertile period should mention here which is very prone to develop the *Kikkisa* in the Primi Gravidae. (TABLE-2) The present study shows that maximum number of patients were from lower middle class Even then no relation can be fixed with disease *Kikkisa* in the economic status however good health and *Garbhini Paricharya* is required for the pregnant women to prevent *Kikkisa* in some extent. (TABLE-3) *Prakriti Parikshana* of all the registered patients indicated that maximum number of patients were of *Vata Pitta Prakriti*. *Kikkisa* is developed by *Tridosha* mainly due to vitiation of *Vata* and *Pitta*. Data shows that the maximum numbers of the patients were of *Vatapitta Prakriti*, reveals that *Vatapitta* may produce *Kikkisa*, but from this small sample we cannot come to the definite conclusion on the *Prakriti* level.(TABLE-4).

**Table 1: Drug contain.**

Content	Latin name	Part used	Ratio	Quantity	Form
<i>Karavira</i>	<i>Narium odorum</i> Soland..	Leaves	8 part	16 kg.	Swarasa
<i>Karanja</i>	<i>Pongemia glabra</i> Vent.	Leaves	8 part	16 kg.	Swarasa
<i>Karavira</i>	<i>Narium odorum</i> Soland..	Leaves	½ part	1 kg	Kalka
<i>Karanja</i>	<i>Pongemia glabra</i> Vent.	Leaves	½ part	1 kg	Kalka
<i>Tila Taila</i>		Oil	4 part	8 kg	Oil
<i>Madhuchhista</i>				1.3 kg	

**Table 2: Age Wise Distribution of Patients.**

Age-group (in years)	Number of patients
20-25	07
26-30	07
31-35	03
36-40	00

Table 3: Socio Economic Status Wise Distribution.

Socio economic status	Number of patients
Poor	3
Lower Middle	7
Middle	1
Upper Middle	6
Rich	0

Table 4: Prakriti Wise Distribution of Patients.

Prakriti	Number of patients
Vata-Pitta	09
Pitta-kapha	05
Vata-Kapha	03

Table 5: Effect of Therapy on Subjective and Objective Parameters.

Subjective & Objective Parameters	N	Mean		% Occurrence	S.D. (±)	S.E. (±)	't'	P	
		B.T.	A.T.						
Subjective	Kandu	04	00	0.27	26.66	0.46	0.12	2.25	<0.05
	Vidah	01	00	0.73	53.33	0.80	0.21	3.55	<0.01
Objective	Twakbheda	00	00	00	00	00	00	-	-
	RSTS	00	00	0.13	13.33	0.35	0.09	1.47	>0.05
	Vaivarnyata	04	00	0.40	40	0.51	0.13	3.05	<0.01
	Vairupya	00	00	0.20	13.33	0.56	0.14	1.38	>0.05

Table 6: Effect of Therapy (% of non occurrence).

Subjective & Objective Parameters	N	BT	AT	Percentage of non-occurrence	
Subjective	Kandu	15	00	04	73.34
	Vidah	15	00	08	46.67
Objective	Twakbheda	15	00	00	100
	RSTS	15	00	02	86.67
	Vaivarnyata	15	00	06	60
	Vairupya	15	00	02	86.67

Table 7: Effect of Therapy.

Effect of therapy	Total number of patients	%
No Occurrence - 100% result	04	26.67
Mild Occurrence - 76 % - 99 % result	09	60.00
Moderate Occurrence - 51 % - 75 % result	02	13.33
Severe Occurrence - 0 % - 50 % result	00	-

## RESULT

The data regarding subjective & objective parameters before and after the treatment was observed that no occurrence found in *Twakbheda* while 13.33% occurrence found in *Rekhaswaruptwaksankoch* as well as *Vairupya* which was statistically insignificant ( $p>0.05$ ). 26.66% occurrence found in *Kandu* which was statistically significant ( $p<0.05$ ) whereas 53.33% and 40% occurrence found in *Vidah* and *Vaivarnyata* respectively with statistically highly significant ( $p<0.01$ ) occurrence. (TABLE 5) where as 100% of non occurrence found in *Twakbheda*, 73.34% of non occurrence was found in *Kandu*, 46.67% of non occurrence found in *Twakbheda*, 86.67% of non occurrence was found in *RSTS* and *Vairupya* while 60% of non occurrence found in *Vaivarnyata* (TABLE 6). After the treatment with *Karviradi* Cream, 4 patients (26.67%) reported no occurrence while 09

patients (60%) showed mild occurrence and 02 patients (13.33%) showed moderate occurrence. None of the patients had found severe Occurrence.(TABLE 7).

## CONCLUSION

From the above study it has concluded that *Karviradi* cream protects dermis and prevent to break the elastic fibre and collagen fibre due to growing of the foetus as an effective drug for manage symptoms of *Kikkisa* (striae gravidarum) no apparent evidence of complication. *Karviradi* cream can be used for the Prevention of *Kikkisa* (striae gravidarum).

## REFERENCES

- www.wikipedia.org/wiki/Striae Gravidarum
- Charak Samhita Vidyotini Tika, Sharir Sthan-8/32* by chauhambha bharati academy(Reprint 2009).

3. *Asthang Samgrah* with indu tika 3/9 (tika), chaukhambha prakashan(reprint 2005).
4. *Asthang Samgrah* by *Kaviraj Atridev Gupt Sarir Sthan* 3/9, Page – 283 chaukhambha prakashan(reprint 2005).