

## A CLINICAL STUDY ON ROLE OF CHANDANA-USHIRAKALKA IN THE MANAGEMENT OF KIKKISA W.S.R TO STRIAE GRAVIDARUM

**Dr. Sushma Kadyan\***

Assistant Professor, Dept. of Stri Roga & Prasuti tantra, Major SD Ayurveda College,  
Farrukhabad, U.P.

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### \*Corresponding Author

**Dr. Sushma Kadyan**

Assistant Professor, Dept.  
of Stri Roga & Prasuti  
Tantra, Major SD  
Ayurveda College,  
Farrukhabad, U.P.

### ABSTRACT

Stretch marks form during rapid growth of the body, such as during puberty or pregnancy. In pregnancy, between 90% to 95% women develop striae gravidarum which mostly appear in 7<sup>th</sup> month and is explained as Kikkisa in Ayurveda, which is characterized by, Kandū, Vaivarnyata, Rukshata, Vidaha and Rekha swaroopa twak sankocha caused by vitiation of tridoshas. Chandana-Ushira Kalka has been selected for effective management of Kikkisa in this study. **Objective:** To evaluate the efficacy of Chandana Ushira Kalka in management of Kikkisa w.s.r. to striae gravidarum. **Materials & Methods:** 30 patients were selected on the basis of inclusive and exclusive criteria & were administered Chandana ushira kalka for a period of 60 days. They were

followed up every 15 days for 90 days. The lakshanas of Kikkisa were observed, recorded and assessed. **Results:** Comparing subjective and objective parameters within the group. At follow-up  $P=0.001$  for subjective parameters showing significant results and  $P>0.001$  for objective parameters showing non-significant results.

**KEYWORDS:** Kikkisa: Striae Gravidarum: Chandana Ushira Kalka.

### INTRODUCTION

Motherhood is a blessing associated with many changes, some of which are physical and some are physiological. One most evident and challenging change in this cosmetic era is Striae Gravidarum also known as Stretch marks. In Ayurveda it is explained as Kikkisa in Brihatreyi's. This condition becomes evident in 7<sup>th</sup> month of pregnancy with symptoms such as Vaivarnyata, Kandū, Rukshata, Vidaha and Rekha swaroopa twak sankocha caused by

vitiation of tridoshas.

These are the depressed streaks over the skin of abdomen, thighs and breasts. Some have suggested that relaxin and estrogen combined with higher levels of cortisol during pregnancy can cause an accumulation of muocopolysaccharides, which increases water absorption of connective tissue, making it prime for tearing under mechanical stress. A sufficient description is available in the Ayurvedic Classics regarding Kikkisa in Brihatreyi's. Sushruta Samhita has not described this disease. This condition occurs during pregnancy period especially on 7th month of pregnancy or 2nd trimester of pregnancy. Modern science have evolved several methods for managing stretch marks which involve even invasive procedures like laser surgeries, dermabrasions, tummy tuck etc. As these treatments are expensive and invasive, scope for conservative management is need of the hour to make it easily available and inexpensive to the women. Hence an attempt is made in present study to evaluate the efficacy of Chandana-Ushira Kalka in the management of Kikkisa w.s.r. to striae gravidarum. Charaka has advised the local application of paste of chandan and ushira for treatment of kikkisa. Also in Ashtang Hridya use of chandana & ushira for treatment of kikkisa is described. Further Chandana ushirakalka is kandughana, kushtaghana and also maintains skin elasticity.

## METHODOLOGY

The present study was carried out on 30 female patients attending O.P.D and I.P.D of Prasuti Tantra Evum Stree Roga Department, Major S.D.Singh P.G Ayurvedic Medical College & Hospital, Farrukhabad.

**OBJECTIVE OF THE STUDY:** To evaluate the efficacy of Chandana Ushira Kalka in management of Kikkisa w.s.r. to striae gravidarum.

**SOURCE OF DATA:** 30 female patients with clinical features of Kikkisa w.s.r. to Striae gravidarum coming under the inclusion criteria attending O.P.D and I.P.D of Prasuti Tantra Evum Stree Roga Department, Major S.D.Singh P.G Ayurvedic Medical College & Hospital, Farrukhabad were selected for the study, the sample collection was initiated post approval, from the Institutional Ethical Committee.

**SAMPLING TECHNIQUE:** The subjects who fulfil the inclusion and exclusion criteria were selected for the study with informed consent (IC).

**METHOD OF COLLECTION OF DATA**

- This clinical study will be conducted on 30 selected pregnant women.
- A case proforma will be designed with all points of history taking, physical signs and laboratory investigations.
- The signs and symptoms will be recorded on the proforma designed for the study.

**DIAGNOSTIC CRITERIA**

Diagnosis was made on the basis of following symptoms of Kikkisa occurring in a pregnant women.

1. Kandu
2. Rukshta
3. Vaivarnyata
4. Sushkata.

**INCLUSIVE CRITERIA**

1. Patient with symptom of kikkisa on abdomen.
2. 2<sup>nd</sup> & 3<sup>rd</sup> trimester of pregnancy.
3. Age group 20-35 yrs.

**EXCLUSIVE CRITERIA**

1. Skin diseases due to other cause.
2. Hydramnios and twin pregnancy.
3. Pregnancy with huge fibroid or ovarian cyst.
4. Systemic diseases like diabetes mellitus, hypertension, tuberculosis, vitiligo, obesity etc.

**INTERVENTION**

A clinical study with pre test and post test was conducted on 30 selected patients.

- Chandana ushira kalka was applied on the abdomen twice a day for 60 days.
- Duration of application- 20-30 minutes.

**TOTAL DURATION OF THE STUDY- 90 days****METHOD OF PREPARATION OF KALKA REQUIRED FOR THE STUDY**

Both the raw drugs i.e. Chandana and Ushira taken in equal ratio were washed with water and then cut into small pieces. Then converted into powdered form and stored. This powder was used to make kalka at the time of application mixed with water. The dose of kalka is said to be one karsha (about 12g) and it has to be consumed immediately after the preparation but for external usage of kalka, quantity sufficient was used depending upon the area to be applied.

## ASSESSMENT CRITERIA

Assessment will be analyzed on the basis of following subjective and objective parameters before and after treatment. Statistical analysis was done by using Student test.

**Table 1: Subjective Criteria and Scoring Pattern.**

S.NO	Assessment criteria	mild	moderate	severe
1	Kandu	8	16	6
2	Vidaha	11	19	0
3	Rukshata	12	18	0
4	Vaivarnayata	4	8	18

## Objective Criteria

**Table 2: Showing classification of striae based on clinical appearance.**

Fresh, inflammatory usually livid striae	2
White, superficial striae without laddering and without palpable depression at the surface of the skin.	2
White, superficial striae without laddering but with palpable depression at the surface of the skin.	4
White, atrophic striae with laddering measuring less than 1 cm width, without deep pearliness.	4
White, atrophic striae with laddering measuring less than 1 cm width, with deep pearliness.	6
White, atrophic striae with laddering measuring more than 1 cm width, with or without deep pearliness.	12

## OBSERVATIONS

In the present study it is observed that maximum of 18 patients belonging to age group of 22-29yrs, 22 patients were Hindu's, 16 patients studied up to higher secondary, 19 patients were home- makers, all 30 patients from Rural area, all 30 patients had mixed diet, 21 patients were from lower middle class, maximum 15 patients belonged to Vata-pitta prakruti, all 30 patients had Kandu, Vaivarnyata & Rekha swaroopa twak sankocha & 22 patients had Vidaha, 24 patients had Rukshata as chief complaint.

## RESULTS

**Table 3: Effect of treatment on Kandu as observed within the groups.**

Phase	Present	Absent	P value	Remarks
BT	30	0	<0.001	HS
AT	2	28		

Among a total of 30 patients with complaints of kikkisa, 28 patients got relief from itching sensation after trial and in 2 patients the symptoms of itching remained unchanged. No

patients reported with aggravation of symptom after treatment. When results were compared BT & AT for variable Kandu the p value ( $< 0.001$ ) revealed statistically highly significant.

**Table 4: Effect of treatment on Vidaha as observed within the groups.**

Phase	Present	Absent	P value	Remarks
BT	22	8	$<0.001$	HS
AT	2	28		

When results were compared BT & AT for variable Vidaha highly significant results were obtained with  $P < 0.001$ .

**Table 5: Effect of treatment on Rukshata as observed within the groups.**

Phase	Present	Absent	P value	Remarks
BT	24	6	$=0.001$	Significant
AT	4	26		

When results were compared BT & AT for variable Kandu, significant results were obtained with  $P = 0.001$ .

**Table 6: Effect of treatment on Vaivarnyata as observed within the groups.**

Phase	Present	Absent	P value	Remarks
BT	30	0	$=0.001$	Significant
AT	22	8		

When result were compared BT & AT for variable vaivarnyata, significant results were obtained with  $P = 0.001$ .

**Table 7: Effect of treatment on Rekha Swaroopa Twak Sankocha as observed within the groups.**

Criteria	Mean		Difference in mean	Paired 't' test				
	BT	AT		% relief	SD	S.E.M	't'	Significance
Width of lesion	6.27	5.9	0.37	3.689	0.87691	0.16010	1.874	0.071
Length of the lesion	6.23	6	0.23	2.3333	0.564	0.14920	1.564	0.129
Area of the lesion	6.33	6.27	0.06	0.666	3.76667	1.86170	2.023	0.052

When results were compared BT & AT for variable width of lesion, length of lesion, area of lesion with student 't' test, non-significant results were obtained with  $t = 1.874$ ,  $P = 0.071$  and  $t = 1.564$ ,  $P = 0.129$  and  $t = 2.023$ ,  $P = 0.052$  respectively.

## CONCLUSION

The following points could be concluded after the study:

- For the subjective parameters significant results were obtained, but for the objective parameters no significant results found.
- Kandu Vidaha and Vaivarnyata were reduced markedly after the treatment of kikkisa with Chandana-Usheera Kalka.
- No effect of Chandana-Usheera Kalka was seen on kikkisa lesion. No any untoward effect were noticed during the follow-up study.

## Limitations of study

Application of Chandana-Usheera Kalka as per classics is not convenient to the patients because of the busy lifestyle. So, it was difficult to convince the working women to use.

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