

COMPARATIVE STUDY OF *KARAVEERA PATRA SIDDHA TAILA* AND *KARAVEERA KARANJA PATRA SIDDHA TAILA* IN THE MANAGEMENT OF *KIKKISA* (STRIAE GRAVIDARUM)

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ABSTRACT

Kikkisa is a *garbhini vyadhi* that occurs in the *saptam masa* of *garbhini kala*. *Kikkisa* can be correlated with striae gravidarum. Striae gravidarum is a physiological skin change that occurs during pregnancy. They are often symptomatic causing itching, burning sensation, discolouration & linear stretch marks over abdominal wall causing psychological distress to the pregnant women. **Method:** The aim of this study was to compare the efficacy of *karaveera patra siddha taila* & *karaveera karanja patra siddha taila* in the management of *kikkisa*. This study was planned on 60 patients with complaints of *Kandu* (itching), *Vidaha* (burning sensation), *Vaivarnyata* (discolouration) & *Rekha swarup twak sankoch* (linear stretch marks over abdominal wall). The study is divided into two groups - group A and group B, 30 patients in each group. Again the groups are subdivided into primigravida and multigravida, 15 numbers in each group. **Result:** In the study, *Karaveera Patra Siddha Taila* is found more effective in case of *Primigravida* than multigravida in the management of *Kandu*, *Rekha Swarup Twak Sankoch* and *vaivarnyata*. *Karaveera- Karanja Patra Siddha Taila* is equally effective in case of primigravida and multigravida in the management of *Kandu* but in case of *Rekha Swarup Twak Sankoch* and *vaivarnyata* it is more effective in primigravida than multigravida. *Karaveera Patra Siddha Taila* and *Karaveera-Karanja Patra Siddha Taila* is equally effective in the management of *kandu* and *vaivarnyata* but in case of *Rekha Swarup Twak Sankoch*, *Karaveera-Karanja Patra Siddha Taila* is more effective than *Karaveera Patra Siddha Taila*. **Discussion:** In case of primi gravida, both the drugs have high rate of improvement in case of *kandu*, *rekha swarup twak sankoch* and *vaivarnyata* but in case of multigravida both the drugs have less improvement. It means both the drugs are more effective in preventive aspect than in curative aspect.

Keywords: Itching, Burning Sensation, Discolouration, Linear Stretch Marks Striae Gravidarum,

INTRODUCTION

Kikkisa is a *tridosaja vyadhi* which manifests in seventh month of pregnancy. According to *Acharya Charaka*, the woman says that because of appearance of hair on fetus, the pregnant woman suffers from burning sensation. But *Acharya Atreya* says that due to growth of the fetus, *Vata*, *Pitta*, *Kapha* reaching the *urah* (chest) give rise to *vidaha* (burning sensation), which causes *kandu* (itching) and the disease *kikkisa* is a result of *kandu* (itching)^[1].

Kikkisa can be correlated with Striae gravidarum from modern point of view. The endocrine, metabolic and immunological changes during pregnancy give rise to a number of physiological cutaneous changes^[2] and *kikkisa* is one of them.

In this present clinical study, the clinical trial consists of two formulations and *Karaveera patra siddha taila* selected from *Charak Samhita Sharir Sthan 8/32*^[3] and *As-tanga Hridaya Sharir Sthan 1/61*^[4] and *Karaveera*

Karanja Siddha Taila is selected from *Astanga Sangraha* 3/3-4^[5]. Comparative study is done between “*Karaveera-Karanja patra siddha taila*” and “*Karaveera patra siddha taila*”.

AIM & OBJECTIVES:

1. Conceptual study of *kikkisa* along with its modern correlation.
2. Comparative study to know the efficacy of *Karaveera Karanja patra siddha taila* and *Karaveera patra siddha taila* in the management of *kikkisa*.

MATERIALS & METHODS

1. STUDY DESIGN:

Selection of cases: Total 60 patients both Primigravida and multigravida were divided into two groups Group A and Group B containing 30 patients, again Group A is subdivided into Primigravida and Multigravida containing 15 patients each and *Karaveera Patra Siddha Taila* is applied and Group B is also subdivided into Primigravida and Multigravida containing 15 patients each and *Karaveera-Karanja Patra Siddha Taila* is applied. The patients were selected randomly from OPD and IPD of *Prasutitantra* and *Streeroga* Dept., Govt. Ayurvedic College & Hospital, Guwahati-14, Assam. The patients were registered for the present clinical study with the help of proforma prepared for the study.

INCLUSION CRITERIA:

- ❖ 2nd and 3rd trimester of pregnancy.
- ❖ Reproductive and marriageable age as per law.
- ❖ The patient having striae gravidarum over abdomen.

EXCLUSION CRITERIA:

- ❖ All types of skin disease/ all allergic conditions.
- ❖ HIV, Hepatitis B, Hepatitis C, Diabetes mellitus, hyperbilirubinemia

SUBJECTIVE PARAMETERS:

- ❖ *Kandu* (itching)
- ❖ *Vidaha* (burning sensation)
- ❖ *Rekha swarup twak sankoch* (linear stretch marks over abdominal skin)
- ❖ *Vaivarnyata* (discolouration of skin).

EXAMINATION OF THE PATIENT:

- ❖ General, local and systemic examinations of patient were done.

LABORATORY INVESTIGATION:

Routine investigations of antenatal check- up were done.

PREPARATION OF THE DRUG:

1. *Karaveera-karanja patra siddha taila*
2. *Karaveera patra siddha taila*

The two *tailas* had been prepared as per *taila paka kalpana* mentioned in *Sarangadhar Samhita* at state Ayurvedic pharmacy of Govt. Ayurvedic College and hospital, Guwahati-14.

Contents & method of preparation:

1. *Karaveera Karanja Patra Siddha Taila:*

Ingredients:

- *Sneha dravya: tila taila*
- *Drava dravya:* water.
- *Kalka dravya:* equal quantity *karaveera patra* and *karanja patra*
- *Murchana dravya: manjistha, haridra, lodhra, mustak, aamlaki, bibhitaki, haritaki, ketki* flowers, *vatankur, hruber.*

Preparation of taila:

Karaveera-karanja patra siddha taila: for the purpose of preparation of *taila*, matured and healthy leaves of *sweta karaveera* and *karanja* in equal quantity were collected from the local area of Govt. Ayurvedic College and Hospital, Jalukbari, Ghy-14. The collected materials were cleaned properly by washing in water as many times as required to clean them. The materials are then cut into small pieces and *kalka* (paste) was prepared. The *tila taila* and collected parts were taken in the ratio of 4:1, *tila taila* is heated till appearance of *phena*, and then *murchana* was done by the *kalka* itself. The whole drug paste given over oil and heated by giving water 4 times of *kalka* and boiled till appearance of *taila paka laksana*. The oil was filtered with a muslin cloth and stored in a dry sterile container.

2. *Karaveera Patra Siddha Taila:*

Ingredients:

- *Sneha dravya: tila taila*
- *Drava dravya:* water.
- *Kalka dravya: karaveera patra*
- *Murchana dravya: manjistha, haridra, lodhra, mustak, aamlaki, bibhitaki, haritaki, ketki* flowers, *vatankur, hruber.*

Preparation of taila:

Karaveera patra siddha taila: for the purpose of preparation of *taila*, matured and healthy leaves of *sweta karaveera* were collected from the local area of Govt. Ayurvedic College and Hospital, Jalukbari, Ghy-14. The collected materials were cleaned properly by washing in wa-

ter as many times as required to clean them. The materials are then cut into small pieces and *kalka* (paste) was prepared. The *tila taila* and collected parts were taken in the ratio of 4:1, *tila taila* is heated till appearance of *phena*, then *murchana* was done by the *kalka* itself. The whole drug paste given over oil and heated by giving water 4 times of *kalka* and boiled till appearance of *taila paka lak-sana*. The oil was filtered with a muslin cloth and stored in a dry sterile container.

After proper analysis of these two *tailas* in Drug Testing Laboratory, Govt. Ayurvedic College and hospital, Guwahati-14 is given for trial

MODE OF ADMINISTRATION: The prepared *taila* have to be applied locally over the abdominal skin after bath or after cleaning the area twice in a day by gentle massage (*abhyanga*) in a dose of 5-10 ml daily.

DURATION OF TREATMENT: From 2nd trimester of pregnancy up to delivery of the baby.

ASSESSMENT OF RESULT:

Sl. No.	Clinical features	0	1	2	3
1.	<i>Kandu</i> (Itching)	No <i>Kandu</i>	Mild <i>Kandu</i> (3-4 times in a day)	Moderate <i>Kandu</i> (5-10 times in a day but not disturbing normal activities)	Severe <i>Kandu</i> (>10 times Disturbing normal Activities)
2.	<i>Vidaha</i> in <i>Udara</i> (Burning sensation)	No <i>Daha</i>	Mild <i>Daha</i> (1- 2 times in a day and is ignored by the patient).	Moderate <i>Daha</i> (3 –5 times in a day but not disturbing normal activities)	Severe <i>Daha</i> (>5 times also Disturbing normal activities and normal sleep)
3.	<i>Rekha Swaroop Twak Sankoch (RSTS)</i> [Linear stretch marks over abdominal skin]	No <i>RSTS</i> (Normal Skin)	Mild <i>RSTS</i> (Mildly observed on the lower abdomen)	Moderate <i>RSTS</i> , (Near the peripheral region of abdomen)	Severe <i>RSTS</i> (Most of the region of whole abdomen and causing mental distress)
4.	<i>Vaivarnyata</i> (Discolouration of skin)	No <i>Vaivarnyata</i> (Normal abdominal skin)	Pinkish	Pinkish- red	Yellowish-white or Purple

FOLLOW UP: The patients of both groups will be followed up once in one month

THE STATISTICAL ANALYSIS:

The data collected were first arranged under

1. Data related to chief complaints
2. Data related to response of treatment

RESULT

Effect of therapy on symptoms:

Group A (*Karaveera Patra Siddha Taila*)

$n_T = 30, n_P = 15, n_M = 15, P = \text{Primi}, M = \text{Multi}$

Parameters	Parity	BT	%	AT	%	Improvement Rate
<i>Kandu</i>	P	11	73.33	0	0	100%
	M	11	73.33	4	36.36	63.63%
<i>Rekha swarup twak sankoch</i>	P	8	53.33	0	0	100%
	M	12	80	12	100	0%
<i>Vaivarnyata</i>	P	6	40	1	16.67	83.33%
	M	12	80	12	100	0%

The data collected were rendered into a master sheet and statistic table were constructed by the help of Microsoft excel of computer.

- ❖ Data related to response of treatment were scientifically analysed by statistical methods Mean, Standard Deviation, Standard error, t-value and p-values were calculated.

Group B: Karaveera-Karanja Patra Siddha Taila

$n_T=30, n_P=15, n_M=15, P=$ Primi, $M=$ Multi

Parameters	Parity	BT	%	AT	%	Improvement rate
Kandu	P	12	80	0	0	100%
	M	11	73.33	0	0	100%
Rekha swarup twak sankoch	P	11	73.33	0	0	100%
	M	15	100	8	53.33	46.66%
Vaivarnyata	P	10	66.67	1	10.0	90%
	M	13	86.67	12	92.30	7.6%

Table 1: Effect of Karaveera patra siddha taila (Group A) in the management of kikkisa (irrespective of grvida):

Parameters	\bar{X}_{BT}	\bar{X}_{AT}	\bar{X}_{BT-AT}	SD	SE	t_{21}	p	Remarks
Kandu	1.31	0.22	1.09	0.87	0.185	5.89	< 0.001	Highly significant
Rekha Swarup Twak Sankoch	1.25	0.80	0.45	0.51	0.11	4.09	< 0.001	Highly Significant
Vaivarnyata	1.27	0.88	0.39	0.5	0.12	3.25	< 0.001	Significant

Table 2: Comparative effect of Karaveera Patra Siddha Taila (group A) in primigravida and multigravida in the management of kikkisa:

Parameters	n_{BT}	n_{AT}	\bar{X}_p (BT-AT)	\bar{X}_m (BT-AT)	Combined SD	SE	t_{20}	p	Result
Kandu	P 11	P 0	1.45	0.73	0.8	0.34	2.14	<0.05	Significant
	M 11	M 4							
Rekha Swarup Twak Sankoch	P 8	P 0	1.0	0.08	0.22	0.1	9.2	< 0.001	Highly significant
	M 12	M 12							
Vaivarnyata	P 6	P 1	0.83	0.08	0.31	0.16	4.86	< 0.001	Highly significant
	M 12	M 12							

Table 3: Effect of Karaveera-karanjapatra siddha taila (Group B) in the management of kikkisa (irrespective of grvida):

Parameters	\bar{X}_{BT}	\bar{X}_{AT}	\bar{X}_{BT-AT}	SD	SE	t_{22}	p	Remarks
Kandu	1.43	0	1.43	0.59	0.12	11.95	< 0.001	Highly significant.
Rekha Swarup Twak Sankoch	1.26	0.50	0.76	0.51	0.10	7.6	< 0.001	Highly significant
Vaivarnyata	1.39	0.87	0.52	0.58	0.12	4.29	< 0.001	Highly significant

Table 4: Comparative effect of Karaveera-Karanja Patra Siddha Taila (Group B) in Primigravida and Multigravida in the management of Kikkisa:

Parameters	n_{BT}	n_{AT}	\bar{X}_p (BT-AT)	\bar{X}_m (BT-AT)	Combined SD	SE	t_{21}	p	Results
Kandu	P 12	P 0	1.33	1.54	0.59	0.24	0.875	>0.1	Not significant
	M 11	M 0							
Rekha Swarup Twak Sankoch	P 11	P 0	1.0	0.60	0.48	0.192	2.08	< 0.05	Significant
	M 15	M 8							
Vaivarnyata	P 10	P 1	1.1	0.076	0.29	0.12	8.53	< 0.001	Highly significant
	M 13	M 12							

Table 5: Comparative study of *Karaveera Patra Siddha Taila* and *Karaveera-Karanja Patra Siddha Taila* in the management of *kikkisa*:

n _T	\bar{X}_A	\bar{X}_B	Combined SD	SE	t ₄₃	P	Results
Group A 22	1.09	1.43	0.77	0.23	1.47	>0.05	Not Significant
Group B 23							
Group A 20	0.35	0.80	0.49	0.15	3.0	<0.005	Highly significant
Group B 26							
Group A 18	0.39	0.22	0.51	0.16	1.06	>0.05	Not significant
Group B 23							

DISCUSSION

On the basis of present study, it was observed that *Karaveera Patra Siddha Taila* and *Karaveera Karanja Patra Siddha Taila* individually both are effective in *Kandu*, *Rekha Swarup Twak Sankoch* and *Vaivarnyata*.

In case of *Kandu*, *Rekha Swarup Twak Sankoch* and *Vaivarnyata*; *Karaveera Patra Siddha Taila* (Group A) is more effective in Primigravida than in Multigravida.

Karaveera Karanja Patra Siddha Taila is equally effective in Primigravida and multigravida in the management of *Kandu*. But in case of *Rekha Swarup Twak Sankoch* and *Vaivarnyata*, *Karaveera Karanja Patra Siddha Taila* is more effective in Primigravida than in multigravida.

In case of comparative study between *Karaveera Karanja Patra Siddha Taila* and *Karaveera Patra Siddha Taila*, both *tailas* are equally effective in the management of *Kandu* and *Vaivarnyata*. But in the management of *Rekha Swarup Twak Sankoch*, *Karaveera Karanja Patra Siddha Taila* is more effective than *Karaveera Patra Siddha Taila*. This effect may be due to synergistic action of *Karaveera* and *Karanja* due to its identical pharmacodynamics.

It was also seen that both the drugs had high rate of improvement in *Kandu*, *Rekha Swarup Twak Sankoch* and *Vaivarnyata* in case of Primigravida but in case of multigravida both the drugs showed less improvement. It implies that both the drugs have more preventive effect than curative effect.

CONCLUSION

1. In this present study comparison was done between *Karaveera Karanja Patra Siddha Taila* and *Karaveera Patra Siddha Taila* in the management of *Kikkisa*.
2. *Karaveera Patra Siddha Taila* and *Karaveera-Karanja Patra Siddha Taila* is effective in the management of *Kikkisa*.

3. *Karaveera Patra Siddha Taila* is more effective in case of Primigravida than multigravida in the management of *Kandu*, *Rekha Swarup Twak Sankoch* and *vaivarnyata*.
4. *Karaveera- Karanja Patra Siddha Taila* is equally effective in case of primigravida and multigravida in the management of *Kandu* but in case of *Rekha Swarup Twak Sankoch* and *vaivarnyata* it is more effective in Primigravida than multigravida.
5. *Karaveera Patra Siddha Taila* and *Karaveera-Karanja Patra Siddha Taila* is equally effective in the management of *kandu* and *vaivarnyata* but in case of *Rekha Swarup Twak Sankoch* *Karaveera-Karanja Patra Siddha Taila* is more effective than *Karaveera Patra Siddha Taila*.
6. No untoward side effect is seen during the clinical study.
7. Both the drugs are more effective in preventive aspect than in curative aspect.
8. Further evaluation for both preventive and curative treatment is needed.
9. The number of patients for this study is less so further study in big patient sample is required.

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Source of Support: Nil

Conflict Of Interest: None Declared

How to cite this URL: Anjumani Deka & Kaushalya Khakhlyar: Comparative Study of Karaveera Patra Siddha Taila and Karaveera Karanja Patra Siddha Taila in the Management of Kikkisa (Striae Gravidarum). International Ayurvedic Medical Journal {online} 2018 {cited January, 2019} Available from: http://www.iamj.in/posts/images/upload/18_23.pdf