



Research Article

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A STUDY ON EFFECT OF NIMBA TAILA IN THE MANAGEMENT OF KIKKISA WITH SPECIAL REFERENCE TO STRIAE GRAVIDARUM

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ABSTRACT

Striae gravidarum is a physiological skin change that many pregnant women experience during pregnancy. Striae gravidarum do not pose a health risk. However, they are often symptomatic, causing itching and discomfort as well as psychological distress in pregnant women, when severe. Kikkisa is a common disorder which occurs at the late phase of second trimester. Almost all pregnant women (75-90 %) of the world suffer from Kikkisa (Striae Gravidarum). The aim of this study was to evaluate clinical efficacy of Nimba taila in Kikkisa. This study was planned on 30 patients. In present study, 30 clinically diagnosed Kikkisa patients were administered with external application of Nimba taila. Result obtained from study revealed that Nimba taila showed significant improvement in relieving the subjective criteria's viz. Itching (Kandu), Burning (Vidaha) Discoloration (Vaivarmta). It has also shown good result in objective criteria's like Width of the lesion, length of the lesion and area of lesion. No untoward reactions were observed in both the groups throughout the study period.

Keywords: Kikkisa, Striae gravidarum, Nimba taila, Garbhini.

INTRODUCTION

The cosmetic approach in Ayurveda is related to the healthy status of the body as well as mind¹. More precisely it can be said that physical, mental and spiritual beauty as a combined unit projects the cosmetic sense of Ayurveda. Striae gravidarum is a physiological skin change that many pregnant women experience during pregnancy. About 70-90 % of pregnant women by third trimester develop stretch marks i.e. striae gravidarum (SG) over the abdomen.² If we look at the etiopathology of Kikkisa (Striae gravidarum) in the literature of Ayurveda, Acharya Charaka³, Vagbhata^{4,5} are of the opinion that growing fetus displaces all the body humors upwards, thus vitiating them. Vitiating Vatadosha leads to twak prasaran (stretching of skin), Pitta dosha causes vidaha and vaivarmyata (burning and pigmentation) and Kaphadosha leads to Kandu (itching), which all together is termed as Kikkisa.⁶ The Indian subcontinent is enriched by a variety of flora- both aromatic and medicinal plants. This extensive flora has been greatly utilized as a source of many drugs in the Indian traditional system of medicine.⁷ Few researches were carried out earlier on various Dravya's and their formulations mentioned in Ayurvedic classics in management of Kikkisa like Karaveer Taila (oil)⁷ and Darvimadhuk siddha Taila (oil)⁸. Here an attempt was made to observe the effect of "NimbaTaila" which has been told in Charaka Samhita⁵ as a useful remedy in Kikkisa to confirm its efficacy, this study was conducted.

Aims and Objectives

To evaluate clinical efficacy of Nimbataila in Kikkisa

MATERIALS AND METHODS

Source of Data

30 pregnant women in their 2nd and 3rd trimester of pregnancy fulfilling the criteria were selected from OPD and IPD of Prasuti Tantra and Stri Roga, S.D.M. college of Ayurveda and Hospital, Hassan, Karnataka, India.

Preparation of Medicine

Nimba taila was prepared from Nimba leaf paste 1/4-parts, Sesame oil 1 -part and water 4-parts as per the method described in Ayurvedic Formulary of India (AFI) to prepare taila to the state of Kharapaka (Slightly over heated).

Source of the Patients

Patients were selected after subjecting them through clinical examination from OPD and IPD of SDM College of Ayurveda and Hospital, Hassan, Karnataka, India. Institutional Ethical Clearance number assigned for this study was SDMCAH/IEC/52/11-12.

Place of Work

Medicine was prepared at pharmacy of Rasa sastra and Bhaishajya kalpana department SDM College of Ayurveda and Hospital, Hassan, Karnataka, India. Clinical trial was conducted at SDM College of Ayurveda and Hospital, Hassan, Karnataka, India.

Method of Collection of Data

- Written and informed consent was taken.
- Totally 30 patients were selected for study following inclusion and exclusion criteria.

Duration of treatment: twice a day for 2 months.

Diagnostic Criteria

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

- Kandu
- Rukshta
- Vaivarnyata
- Sushkata

Inclusion Criteria

- Patient with symptom of Kikkisa on abdomen.
- 2 and 3 trimester of pregnancy
- Age group 20 to 35

Exclusion criteria

- Skin diseases due to other cause.
- Hydramnios and twin pregnancy.
- Pregnancy with huge fibroid or ovarian cyst.
- Systemic diseases like Diabetes mellitus, hypertension, Tuberculosis etc.

Assessment Criteria

Subjective Parameters

For the assessment of the subjective scoring was given to all the signs and symptoms from Grade 0-3 according to the severity and was documented properly before treatment and after treatment. Assessment was made based on the following criteria with their scoring.

Table 1: Assessment Criteria with their Scoring

S. No	Criteria	Details	Score
1	Kandu (itching)	No itching	0
		Mild itching not disturbing normal activity	1
		Occasional itching distribution normal activity :	2
		Itching persistent continuously and disturbing sleep	3
2	Vidaha (burning)	No burning sensation	0
		Mild burning not disturbing normal activity	1
		Occasion burning disturbing normal activity	2
		Burning persistent continuously and disturbing	3
3	Discolouration (vaivarnata)	Normal	0
		Mild	1
		Moderate	2
		Severe	3

Objective Parameters

- Width of lesion
- Length of lesion
- Area of lesion

- Paired ‘t’ test was done for analyzing the significance of objective parameters.

Statistical Methods

- Statistical analysis was done using SPSS VER. 16
- 30 patients data were taken for statistical analysis.
- Wilcoxon sign rank test was applied to analyze the significance of change in subjective parameters

RESULTS

Effect of Nimba Taila on the Patients of Kikkisa (Striae gravidarum)

As mentioned above 30 patients were treated with external application of Nimba Taila twice a day before food for two months.

Paired ‘t’ test

Table 2: Effect of Nimba Taila for Objective Parameters

Signs and Symptoms	Mean BT	Mean AT	MD	% of Change	SD (±)	SE (±)	t*	p value (Significance)
Width of the lesion	6.27	5.96	0.31	3.689	0.8769	0.1601	1.874	0.071
Length of the lesion	6.23	6.00	0.23	3.691	0.2333	0.1492	1.564	0.129
Area of the lesion	6.34	6.12	0.22	3.470	3.7666	1.8617	2.023	0.052

BT: Before Treatment, AT: After Treatment

Willcoxin Sign Rank Test**Table 3: Effect of Nimba Taila for Subjective Parameters**

Parameter	Negative ranks			Positive ranks			Ties	Total	Z Value	P value	Inference
	N	MR	SR	N	MR	SR					
Kandu (itching)	28	1.8	0.404	0.00	0.17	0.53	2	30	4.882	0.001	S
Vidaha(burning)	26	1.57	0.62	0.00	0.01	0.40	4	30	4.660	0.001	S
Vaivarnya (discolouration)	26	1.57	0.62	0.00	0.01	0.40	4	30	4.660	0.001	S

DISCUSSION**Effect of therapy on subjective parameters**

Kandu (itching) between D1 and D60 was reduced in 28 subjects which is significant (Z -4.882, p 0.001), Daha (burning) between D1 and D60 was reduced in 26 subjects which is significant (Z -4.660, p 0.001) and Vaivarnya (discoloration) between D1 and D60 was reduced in 26 subjects which is significant (Z -4.660, p 0.001).

Effect of therapy on objective parameters

When result were compared before treatment and after treatment with Student paret 't' test, for variable area of lesion, significant result were obtained with $t = 2.023$, $P = 0.052$ for width of lesion, non significant result were obtained with $t = 1.874$, $P = 0.071$ and length of lesion non significant result were obtained with $t = 1.564$, $P = 0.129$. Kikkisa is a common disorder which appears on the abdomen during seventh month. If we look at the etiology of Kikkisa, it shows that various stages has compiled the same cause i.e. vitiation of tridosha (three humors) due to the growing fetus which leads to burning sensation and itching as symptoms and stretch marks as a sign. Above said causative factors and symptomatology of Kikkisa has close resemblance with Striae Gravidarum as described in modern texts. As per the classical references, Lepa (anointment), which is prepared from Nimba, Sursa, Kola and Manjistha applied along with navneet (butter) is helpful in Kikkisa.⁹ But the conventional method of application of lepa as per classics is not convenient to the patient because of the busy life style. Therefore in the present study oil form has been selected for better acceptance and convenience of the patients. As to store navneet (butter) for long time and in fresh form is difficult so to avoid the inconvenience oil is selected instead of Navneet and nimba have been selected as per their availability and pharmacodynamic potency. The Nimba oil application routine is design to remove the dead skin layer by layer. The aim of the present study was to see efficacy of Nimba Taila mentioned in classical texts for its application in kikkisa.

Kandu

Though Kandu (itching) is a symptom of Kapha but here in Kikkis Kandu is due to dryness of skin. So Vata Shamaka (vata alleviating) property of oil, Kandughna (anti pruritic) action of Tikta Rasa (bitter taste) and Snehana (oleating) effect of Snigdha Guna (unctuous

property) protect and give relief from Kandu. Tikta Rasa has Kandughna property and also Nimba is a best Kandughna drug.¹⁰

Vidaha

Tikta and Kashaya Rasa have Daha Shamaka (coolant) property, nimba also have Pitta shamaka (pitta alleviating) property, which reduce the Vidah (burning)¹¹.

Vaivarnya (discoloration)

Kashaya Rasa has Varnya (complexion promoting) action which helps to regain normal skin complexion.¹⁰⁻¹¹

CONCLUSION

Kikkisa (Striae gravidarum) is a common discomforting problem in the late second trimester of pregnancy. More than 90 % of women populations suffer from Striae gravidarum during and after pregnancy. Nimba is having immunomodulator properties. Nimba is having Varnya, Raktashodhan (blood purifying), Kandughna and Kusthaghna properties and also have antibacterial, antifungal, anti carcinogenic properties. Nimba is easily available drug and it may be considered as a major drug in healing Striae gravidarum. This study proves that Nimba Taila is an efficient as well as an ideal remedy for Kikkisa (Striae gravidarum).

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