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## A randomized comparative clinical study of *Manjistha Ghrita* (*Rubia Cordifolia* Linn.) and *Go-Ghrita* in the management of *Kikkisa* (*Striae Gravidarum*)

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### ABSTRACT

Skin ailments are the third most common disease in developing countries and in modern society it is a subject of sociomedical importance. One such ailment associated with pregnancy is *Kikkisa* (*Striae gravidarum*). *Kikkisa* (*Striae gravidarum*) is a *Garbhini Vyadhi* which occurs mostly in *Sapta Masa* of *Garbhini Kala* (7<sup>th</sup> month of pregnancy). It is a condition where growing foetus enlarges *Garbhashaya* which displaces *Doshas Vata*, *Pitta* and *Kapha* upwards, reaches *Uras* and produces *Daha* causing *Kandu* on abdomen, breasts and thighs. *Striae gravidarum* are seen in 50-90% of pregnant women due to many physiological, metabolic and hormonal changes along with increased stress on connective tissue will lead to breakage of fibers. *Manjistha* (*Rubia cordifolia* Linn.) is considered as *Raktashodaka* and *Kushtanuta*. Considering the risk factors in pregnancy the current study has been taken up under external application of *Manjistha* in the form of *Ghrita* over internal usage of *Kwatha* as mentioned in authentic text. Keeping this in mind a comparative study was conducted to analyze the effect of *Manjistha Ghrita* and *Go-Ghrita* on *Striae gravidarum*. 30 subjects after considering the inclusion and exclusion criteria were taken up for the study. Patient's general and physical examinations were done. On day 0, through inspection if *Striae* were observed then *Manjistha Ghrita* and *Go-Ghrita* were given in alternative manner. Patients were asked to come for follow up on Day 15. The study period was 30 days and on Day 30, patients were examined to check for any changes in *Striae*. The obtained data were analyzed statistically using Paired T test, UnPaired T test, Wilcoxon test, Mann Whitney test, by using SPSS Software. Usage of *Manjistha Ghrita* gave considerably good results statistically when compared to application of *Go-Ghrita* as it only helped in reducing the symptoms till the subjects used the medication and there was recurrence of symptoms later.

**Key words:** *Manjistha Ghrita*, *Go-Ghrita*, *Kikkisa*, *Striae gravidarum*

### INTRODUCTION

*Ayurveda* which is considered as 'science of life' gives importance to both preventive and curative measures with respect to a disease. Skin ailments are the third most common disease in developing countries and in modern society it is a subject of sociomedical importance

One such ailment associated with pregnancy is *Kikkisa* (*Striae gravidarum*).

*Kikkisa* (*Striae gravidarum*) is a *Garbhini Vyadhi* which occurs mostly in *Sapta Masa* of *Garbhini Kala* (7<sup>th</sup> month of pregnancy). It is a condition where growing foetus enlarges *Garbhashaya* which displaces *Doshas Vata*, *Pitta* and *Kapha* upwards, reaches *Uras* and produces *Daha* causing *Kandu* on abdomen, breasts and thighs.<sup>[1]</sup>

*Striae gravidarum* are seen in 50-90% of pregnant women due to many physiological, metabolic and hormonal changes along with increased stress on connective tissue will lead to breakage of fibres. Symptoms seen are linear marks with varying length and breadth, burning sensation, itching and discoloration. Initially, they will be pinkish but after delivery the scar tissue contract and obliterate the

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capillaries and they become glistening white in appearance and they are called as striae albicans.<sup>[8]</sup>

*Manjistha* (*Rubia cordifolia* Linn.) is considered as *Raktashodaka* and *Kushtanuta*.<sup>[2,7]</sup> They are the perennial climber which promotes skin healing by its local action on the skin, it is considered as *Varnakrit*.<sup>[7]</sup> It has also been proven for wound healing activity, antimicrobial, anti-inflammatory and antioxidant property.<sup>[4]</sup>

*Manjistha* (*Rubia cordifolia* Linn.) cures burning sensation due to *Tikta*, *Kashaya* and *Madhura Rasa* present in it. *Kandughna* action is performed by *Tikta Rasa* and *Ushna Veerya*, *Varnakrit* action is performed by *Kashaya Rasa*.<sup>[1]</sup> Considering the risk factors in pregnancy the current study has been taken up under external application of *Manjistha* in the form of *Ghrita* over internal usage of *Kwatha* as mentioned in authentic text.<sup>[2,3]</sup> As in market there is no such external application available and instead of *Lepa*, *Ghrita* <sup>[6]</sup> is used in this research

## AIM AND OBJECTIVE

1. To evaluate the clinical efficacy of *Manjistha Ghrita* in *Kikkisa* (Striae gravidarum).
2. To compare and evaluate clinical efficacy of *Manjistha Ghrita* and *Go-Ghrita* in *Kikkisa* (Striae gravidarum).

## MATERIALS AND METHODS

The study related documents were reviewed and approved by Sri Sri Institutional Ethical Committee at Sri Sri College of Ayurvedic Science and Research, Bangalore. The clinical study was conducted at Sri Sri College Of Ayurvedic Science and Research Hospital, Bengaluru. 30 diagnosed patients of Striae gravidarum at Out Patient Department of Prasuti tantra and Stree Roga, SSCASR, Bengaluru, were registered after obtaining the informed consent of the study.

### Inclusion Criteria

- Pregnant women diagnosed with symptoms of *Kikkisa*.
- Age group 20-35years

- Second and third trimester of pregnancy.

### Exclusion Criteria

- Pregnant women suffering from any other skin diseases except stretch marks.
- Pregnant women suffering from any systemic illness.
- Presence of any surgical scar on the abdomen.

### Study Procedure

30 subjects after considering the inclusion and exclusion criteria were taken up for the study. Patient's general and physical examinations were done. On day 0, through inspection if striae were observed then *Manjistha Ghrita* and *Go-Ghrita* were given in alternative manner. Patients were asked to come for follow up on Day 15. The study period was 30 days and on Day 30, patients were examined to check for any changes in striae.

### Sample Size

Thirty subjects of pregnant women would be divided into two groups consisting of 15 subjects each.

### Grouping

**Group A :** Application of *Manjistha Ghrita* in the affected area in morning before bath and at night before going to bed, it should be left as it is for 20 minutes and later clean it with warm water.

**Group B :** Application of *Go-Ghrita* in the affected area in morning before bath and at night before going to bed, it should be left as it is for 20 minutes and later clean it with warm water.

### Intervention Details

- Mode of administration - External application
- Time of application - Everyday morning and night before bath and before going to bed.
- Duration - 20 minutes in the morning and at night

### Diagnostic Criteria

Diagnosis would be made based on symptoms seen in *Kikkisa*.<sup>[1]</sup>

- *Daha* (burning sensation)
- *Kandu* (itching)
- *Twakbheda* (Dis-figuration of skin)
- *Vaivarnya* (discoloration of skin)
- *Rukshata* (dryness)

### Assessment Criteria

For assessment subjective and objective parameters should be considered.

### Subjective Parameter

SN	Criteria	Details	Score
1.	<i>Kandu</i> (itching)	No itching	0
		Mild itching without disturbance in normal activity	1
		Occasional itching with disturbance in normal activity	2
		Itching persistent continuously and disturbing sleep	3
2.	<i>Vidaha</i> (burning)	No burning	0
		Mild burning without disturbance in normal activity	1
		Occasional burning with disturbance in normal activity	2
		Burning persistent continuously and disturbing sleep	3
3.	<i>Vaivarnya</i> (discoloration)	Normal	0
		Mild	1
		Moderate	2
		Severe	3

### Objective Parameter

- Length of lesion (in mm)

- Breadth of lesion (in mm)
- Area of lesion (in mm)

### Statistical Analysis

The obtained data were analyzed statistically using Paired T test, Un-Paired T test, Wilcoxon test, Mann Witney test, by using SPSS Software.

### RESULTS

After statistical analysis, following are some of the findings. Both *Manjistha Ghrita* and *Go-Ghrita* will reduce the area of lesion which is statistically highly significant. While comparing within the group and between the group, the effect over area of lesion is highly significant.  $P = 0.001$  according to Unpaired T Test and  $P = 0.002$  according to Paired T Test.

As per Wilcoxon Test, by the use of *Manjistha Ghrita* and *Go-Ghrita*, there is relief from *Kandu* within the groups between 0<sup>th</sup> day and 15<sup>th</sup> day, and between 0<sup>th</sup> day and 30<sup>th</sup> day, which are statistically highly significant. ( $P=0.000$ )

Whereas the relief from *Kandu* between 15<sup>th</sup> day and 30<sup>th</sup> day is statistically Non-significant. ( $P=0.491$ )

As per Mann-Whitney Test, by the use of *Manjistha Ghrita* and *Go-Ghrita*, the relief from *Kandu* between the groups on 0<sup>th</sup> day is Non-significant. ( $P=0.410$ ), whereas it is statistically significant on 15<sup>th</sup> day and on 30<sup>th</sup> day of intervention between the groups. ( $P = 0.015$ ,  $P = 0.041$ ) respectively.

As per Wilcoxon Test, by the use of *Manjistha Ghrita* and *Go-Ghrita*, there is reduction in *Vaivarnya* within the groups between 0<sup>th</sup> day and 15<sup>th</sup> day, and between 0<sup>th</sup> day and 30<sup>th</sup> day, which are statistically significant. ( $P=0.025$ ,  $P=0.046$ ) respectively, whereas it is statistically highly significant on 15<sup>th</sup> day and on 30<sup>th</sup> day of intervention between the groups. ( $P=0.003$ )

As per Mann-Whitney Test, by the use of *Manjistha Ghrita* and *Go-Ghrita*, the reduction in *Vaivarnya* between the groups on 0<sup>th</sup> day and 15<sup>th</sup> day is statistically non-significant. ( $P=0.264$ ,  $P=1.000$ ), whereas it is statistically significant on 30<sup>th</sup> day between the groups. ( $P=0.0045$ )

As per Wilcoxon Test, by the use of *Manjistha Ghrita* and *Go-Ghrita*, there is relief from *Vidaha* within the groups between 0<sup>th</sup> day and 15<sup>th</sup> day, and between 0<sup>th</sup> day and 30<sup>th</sup> day, which are statistically highly significant. (P=0.011, P=0.005), whereas the relief from *Vidaha* between 15<sup>th</sup> day and 30<sup>th</sup> day is statistically Non-significant. (P=0.096)

As per Mann-Whitney Test, by the use of *Manjistha Ghrita* and *Go-Ghrita*, the relief from *Vidaha* between the groups on 0<sup>th</sup> day, 15<sup>th</sup> day and 30<sup>th</sup> day is statistically non-significant. (P=0.357, P=1.000, P=0.276)

## DISCUSSION

### Discussion on the title

Reference of this formulation is available in *Ashtanga Sangraha* and *Charaka Samhita*. The drug is extensively used by practitioners in the treatment of various skin disorders. The drug is easily available and cost effective, thus it emphasizes the importance for treatment of stretch mark.

### Discussion on Literature Review

The literature review of the drug was done from literature, research articles and reliable internet sources. The *Rasa Panchaka* of the drug were known from the literature as *Kashaya*, *Tikta Rasa*, *Ushna Veerya*, *Katu Vipaka* and *Guru, Ruksha Guna*.

### Discussion on Materials and Methods

The drugs were collected from the authorized drug dealers for obtaining the best results. Selection of go-ghrita was done to compare and check the efficacy of the trail drug. Grouping was done by random selection of subjects. Inclusion criteria were set based on signs and symptoms of *Kikkisa* from the age group 20-30 years and pregnant women in 2<sup>nd</sup> and 3<sup>rd</sup> trimester.

### Discussion on Assessment

Objective parameter was considered by measuring area of the *Striae gravidarum*. Subjective parameters were taken based on the symptoms of *Kikkisa* as explained in classics along with their with grading. Subjects were assessed on 0<sup>th</sup>, 15<sup>th</sup> and 30<sup>th</sup> day.

### Discussion on Probable Mode of Action

*Manjistha* having *Tikta*, *Kashaya* and *Madhura Rasa* cures burning sensation and *Kandughna* action is performed by its *Ushna Veerya* and it is *Rakta Shodhaka* and has *Varnakrit* action due to *Kashaya Rasa*. As drug has Rubiadin Di-hydroxy anthraquinone are very much responsible of anti-inflammatory and anti-oxidant activity which in turn helps in reducing the symptoms.

Before Treatment



After Treatment



**CONCLUSION**

The usage of *Manjistha Ghrita* and *Go-Ghrita* in the management of *Kikkisa* is helpful for the study. The result indicates that on usage of *Manjistha Ghrita* there was reduction in *Kandu*, *Vidaha*, *Vaivarnya* due to *Kikkisa*. It is also observed that there is reduction in the size of the stretch marks. Usage of *Manjistha Ghrita* gave considerably good results statistically when compared to application of *Go-Ghrita* as it only helped in reducing the symptoms till the subjects used the medication and there was recurrence of symptoms later.

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**REFERENCES**

1. Premvati Tewari. Ayurvediya Prasuti tantra Evam Striroga vol.2. 2<sup>nd</sup> ed. Varanasi: Chaukhambha Orientalia; 2017. p.241,242.
2. Srikantha Murthy K R. Astanga Samgraha of Vagbhata vol.2. 5<sup>th</sup> ed. Varanasi: Chaukhambha Orientalia;2016. p.34.
3. Ram Karan Sharma, Vaidya Bhagwan Dash. Agnivesa's Caraka Samhita vol.2. reprint ed. Varanasi: Chowkhambha Sanskrit Series Office; 2019.p.485,486.
4. Sarita Verma, D.C Singh, Ritu Singh, Rupesh Kumar Sanger. Manjishta (*Rubia cordifolia* Linn.) as cosmeceutical remedy for prevention of Striae gravidarum; International Journal of Ayurveda and Pharma Research; 2017;5(6): 60-63.
5. Chandel Akanksha, Vasavda Krup, Sandhya K. Study on effect of Nimbataila in the management of Kikkisa w.s.r to Striae gravidarum; International Journal of Ayurveda and Pharma Research; 2015;6 (1):40.
6. Kaviraja Atrideva Gupta. Astanga Hrdayam. reprint ed. Varanasi: Chaukhambha Sanskrit Sansthan;2005. p.44,45.
7. Sri Brahmasankara Misra, Sri Rupalalaji Vaisya.Bhava Prakasha Nigantu. 11<sup>th</sup> ed. Varanasi: Chaukhambha Sanskrit Bhawan; 2007.p.110.
8. Hiralal Konar. D.C Dutta's Textbook of Obstetrics 9<sup>th</sup> ed. New Delhi: Jaypee Brothers Medical Publishers;2019. p.45,46.
9. Dr. Hemalatha Kapoorchand. Prasuti tantra Obstetrics vol1. 2<sup>nd</sup> ed. Varanasi: Chaukhambha Vishvabharati;2020.p.500,501.
10. Dr. Prakash L. Hegde, Dr. Harini A. A textbook of Dravyaguna Vijnana vol.2. 2<sup>nd</sup> ed. New Delhi: Chaukhambha Publications; 2019. p.575,576,577.
11. Park KK, Murase JE. Connective Tissue changes: Kroumpouzoz G, editor. Text Atlas of Obstetric Dermatology; 2013.
12. Halperin O, Nobel A.Balachsan S, Klug E Liebergall-Wischnitzer M. Association between severities of striae graviduum and obstetric anal sphincter injuries Midwifery.2017;p.25,

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