



STUDY OF EFFICACY OF DARUHARIDRA AND YASHTIMADHU GEL IN THE PREVENTION OF KIKKISA WITH SPECIAL REFERENCE TO STRIAE GRAVIDARUM

Khushboo Kumawat¹, Mrudula B. Kulkarni²

¹PG Scholar, Department of Prasuti Evum Stree Roga, College of Ayurved, Bharati Vidyapeeth Deemed (to be) University, Pune, Maharashtra, India

²MS (Ayurved), Assistant Professor Department of Prasuti Evum Stree Roga, College of Ayurved, Bharati Vidyapeeth Deemed (to be) University, Pune, Maharashtra, India

Corresponding Author: dr.khushbookumawat91@gmail.com

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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 dis-comfort 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 compare efficacy of *Daruharidra* and *Yashtimadhu* gel prevention of *Kikkisa*. *Kandu* (Itching), *Daha* (burning sensation), *Vaivarnya* (discolouration) and *Rekha Swarup Twak Sankoch* (stretch marks over abdominal wall) sign and their symptoms were considering for study. After proper observation and statistical analysis conclusion was drawn. *Daruharidra* and *Yasthimadhu* are a drug used skin protective and healing herb by virtue of wound healing, antimicrobial, antifungal and antibacterial properties which is revealed by my research.

Keywords: *Daruharidra*, *Yashtimadhu*, *Kikkisa*, Striae gravidarum, Stretchmarks.

INTRODUCTION

From the ancient Indian to present, through all culture's mankind has been occupied with youth and physical appearance. Beauty has been admired since immemorial. The importance of beauty and personality is increasing now a day as it is competitive era. The cosmetic approach in Ayurveda is related to the combined unit of the healthy status of physical, mental and spiritual beauty. *Tvak* is a most important enveloping protective layer and also a sense organ. As being the largest organ of the body and being on the surface, it is directly exposed towards microorganism.

Kikkisa:

In Ayurvedic classics, the description of *Kikkisa* is available in *Garbhini Vyapad. Vaivarnya, Kandu, Vidaha, Rekhaswarupa, Tvak-Sankocha* is known as *Kikkisa*. *Hetu* of *Utapatti* of *Kikkisa* as per Acharya Vagbhata¹ is, in *Garbhini Stri*, as growing foetus displaced *Doshas*.

According to Bhela², the *Kikkisa* appears during 7th month of pregnancy, the *Doshas* are displaced by *Garbha* toward uras produces itching (*Kandu*) and (*daha*) sensation. From *Urahstana* along with *Rasrakta* these *doshas* spread all over the body and resulting *Twakashrayi Vaigunya* i.e. *Kikkisa*.

Striae Gravidarum:

Striae gravidarum is slightly depressed linear marks with varying length and breadth found in the trimester of pregnancy particularly in the 24-28 weeks due to the overstretching.

About more than 90% of total women populations are affected by some over stretch marks. Stretch mark that form during pregnancy, usually during the last trimester, and usually on the belly but also commonly occurring on the breast, thighs, hips, lower back and buttocks are known as striae gravidarum.

Causes of Striae gravidarum are, due to weakening of elastic tissues associated with pregnancy, over-weight, during puberty. Sign and symptoms of Striae is they begin as reddish-purple lesions and over time, lose pigmentation and atrophy. They can cause a burning and itching sensation, as well as emotional distress.

Aim: To study the efficacy of *Daruharidra* and *Yashtimadhu* gel in the prevention of *Kikkisa* with special reference to striae gravidarum.

Objectives: To interpret the hypothetical action of *Daruharidra* and *Yashtimadhu* gel in the Prevention of *Kikkisa* with special reference to striae Gravidarum.

Material and Method:

Clinical Source: OPD Patients Department of Prasuti Evum Stri Roga Bharati Vidyapeeth College of Ayurveda & Hospital, Pune -411043, Maharashtra, India.

Literary Source: Literary aspect of study was collection from Classical Ayurvedic text, Modern text, recent journals.

Drug Source: Gel made of *Daruharidra* and *Yashtimadhu* is effective in *Kikkisa* according to Acarya Vagabhata. Both drugs were purchased from reputed ayurvedic Pharmaceutical shop, Authentication and Standardization was done. Gel was prepared by following standard methods of preparation from reputed pharmaceutical company.

Materials: *Daruharidra* and *Yashtimadhu* gel as treatment for *Kikkisa*, which is described in following text.

दार्वीमधुकतोयेनमृजां च परिशीलयेत्³ (अ.ह.शा.1/61)

Sr. No.	Drug	Latin name	Family	Rasa	Vipak	Virya	Doshghanata	Karya
1.	<i>Daruharidra</i>	Berberis aristata	Berberidaceae.	<i>Tikta, Kashya.</i>	<i>Katu</i>	<i>Ushna</i>	<i>Kapha-pittahara</i>	<i>Shothahara, Varnoropana, Kushthagana</i>
2	Yastimadhu	Glycrrhiza glabra	Leguminosae	<i>Madhura.</i>	<i>Madhura.</i>	<i>Sheet</i>	<i>Vata-pittahara</i>	<i>Dahashamaka, Keshya, Vednasthapana, Sodhahara.</i>

Methods of Drug Intake:

- Dose:** *Daruharidra* and *Yashtimadhu* gel as per requirement.
- Form:** Gel.
- Route of Administrations:** Local application

d) **Time:** Twice a day on abdomen.

e) **Follow Up:** 1st follow up after 15 days, 2nd follow up after 30 days, 3rd follow up after 45-day, 4th follow up after 2 month & 5th follow up after 3 months.

f) **Duration of Drug:** From 24 weeks to 36 weeks of pregnancy, (12 weeks)

Inclusion Criteria:

1) *Primi* patients were selected for the study from 24 weeks to 36 weeks of pregnancy, diagnosed *Kikkisa* patients were selected for treatment.

2) Patients from all socioeconomic classes.

Exclusion Criteria

1) Allergy to *Daruharidra* and *Yashtimadhu* gel.

2) Pregnant woman with other skin disorder.

3) Not applied before 24 weeks of pregnancy.

Discontinuation Criteria:

1. If there is no effect after 2 follow ups, then drug was discontinued.

2. If patient develops any untoward side effect, then treatment was discontinued.

3. Noncompliance of the patient.

4. Voluntary withdrawal by the patient.

5. If patient is not regular for follow up, then she was discontinued.

Assessment of Results: Parameters before and after the treatment was compared and statistically analysed.

Grading of *Kandu* (Itching)

No itching = 0, Mild itching (No disturbing) = 1,

Moderate (Disturbing routine some time at night) = 2,

Severe (Disturbing sleeping) = 3

Grading of *Daha* (Burning)

No burning = 0, Mild burning (No disturbing) = 1,

Moderate (Disturbing routine some time at night) = 2,

Severe (Disturbing sleeping) = 3

Grading of *Vaivaranya* (Discoloration)

Absent = 0, White = 1, Pink/Red = 2, Black = 3

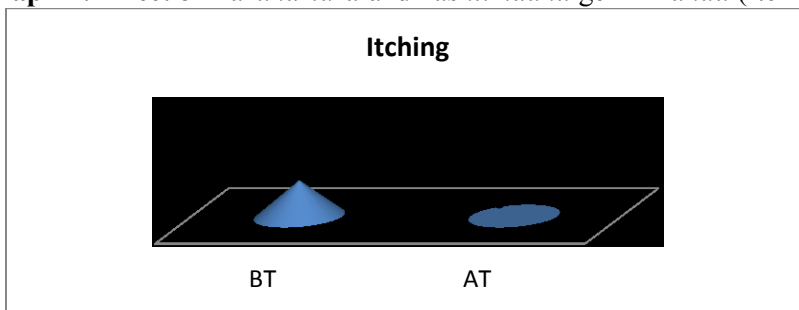
Grading of Stretch marks (No. of striae)

Absent = 0, 1-2 = 1, 3-4 = 2, 5-8 = 3

Assessment of Response: Assessment of condition has been done based on detailed proforma, adopting standard scoring methods of parameters and analysed using paired t test, Wilcoxon test

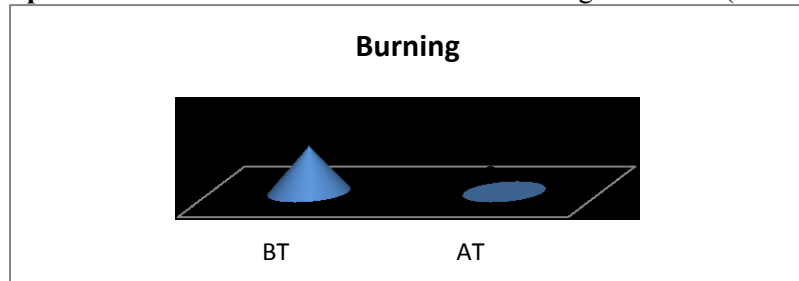
Result and Interpretation

Graph 1: Effect of *Daruharidra* and *Yashtimadhu* gel in *Kandu* (Itching)



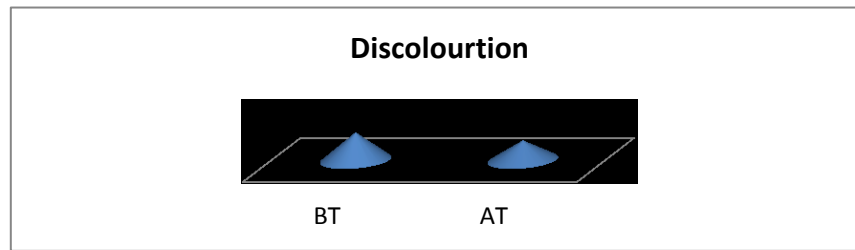
Daruharidra and *Yashtimadhu* Gel was 100% effective on *Kandu* (Itching) in striae gravidarum (*Kikkisa*).

Graph 2: Effect of *Daruharidra* and *Yashtimadhu* gel in *Daha* (Burning)



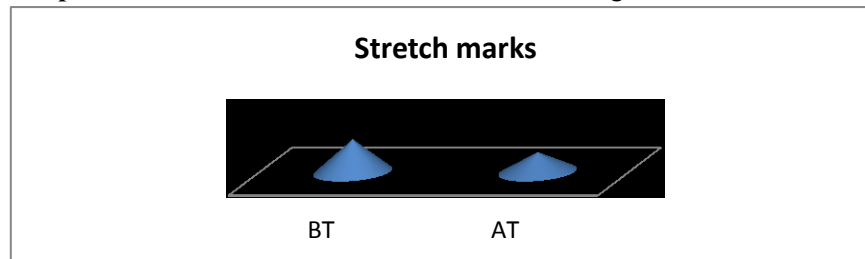
Daruharidra and *Yashtimadhu* Gel was 100% effective on *Daha* (burning) in striae gravidarum (*Kikkisa*).

Graph 3: Effect of *Daruharidra* and *Yashtimadhu* gel in *Vaivarnya* (Discolouration)



Daruharidra and *Yashtimadhu* Gel was 29% effective on *Vaivarnya* (Discolouration) in striae gravidarum (*Kikkisa*).

Graph 4: Effect of *Daruharidra* and *Yashtimadhu* gel in stretch marks



Daruharidra and *Yashtimadhu* gel was less (2.94%) effective on Stretch marks in striae gravidarum (*Kikkisa*)

DISCUSSION

Cosmetics play an important role in the women's life. The disease *Kikkisa* is very common among the women of reproductive age group. Almost more than 90% women suffer from this ailment. *Kikkisa* can be considered as a multifactorial condition where mechanical stretching due to sudden growth of the fetus (*Garbhotpeedana*) is not the only cause. Further in the *Samprapti* of *Kikkisa*, it is mentioned that due to *Garbhotpeedana*, the *Vata Pitta Kapha Doshas* reach the *Urasthan* and *Hrudaya* causing *Vidaha* and *Kandu* in the *Garbhini* which then leads to *Twak Sankocha*. When the acharyas say that the *Tridosas* reach *Uras*, there is only *Dosha Vriddhi* due to the *Garbhini Paricharya* mentions the manifestation of *Kikkisa* in 7th month and its management. *Kikkisa* firstly expressed by *Vidaha* (burning sensation) followed by *Kandu* (itching) results in *Charma Vidarana*. *Vidaha* is due to vitiation of pitta, *Kandu* is due to vitiation of *Kapha*. *Charma Vidarana* is due to vitiation of *Vata* Vitiated *Vata Dosha* causes *Twak Prasaran* (stretching of skin), *Pitta* leads to *Vidaah* and *Vaivarnya* (burning and depigmentation) and *Kapha* causes itching and the combination of these changes as *Kikkisa*. The massage is exceedingly beneficial to the skin. *Kikkisa* can be

correlated with striae gravidarum. Discomfort from itching sensation and cosmetic value from pigmentation, stretch marks etc. are the initiation for treatment.

Relief of symptoms in *Kikkisa*:

On basis of *Rasa Panchak*, Medicinal properties and pharmacological action relief the symptoms of and *Kikkisa* Like:

Vidah: *Vidah* is primary complain of patient due to tearing of fibers and vitiation of *Pitta Dosha* mainly occur during second trimester of pregnancy. *Pit-Tashamak* property of *Daruharidra* and *Yash-Timadhu* with *Tikta* and *Kashaya Rasa* and *Madhur Vipak* causes *Daha Shaman*.

Kandu: *Kandu* is the symptom of *Kapha* mainly but in *Kikkisa* it is due to dryness of skin and *Vata Dosha* is the main reason behind it. Tearing of fibers also alleviates *Vata Dosha*. *Madhur Rasa* of *Yashtimadhu* pacifies the *Vata Dosha* relieving *Kandu*. *Kandughana* action is performed by *Tikta Rasa*⁴

Vaivarnya: *Daruharidra* is included under *Varnya Dashemani*. *Ushna Veerya* accelerate the action of *Bhrajak Pitta* (*Agni*), which is responsible for skin colour and luster. Due to *Tikta Rasa* and *Katu Vipaka*

have *Kushthagha* property and *Kashaya Rasa* has *Varnya* action.

Vairupya: *Rakta Prasadana* by *Tikta Rasa* of *Daruharidra* along with other factors contributes to nurture the skin and maintain its proper luster and texture and prevent the *Vairupya* caused due to tearing of skin.

Daruharidra contains Berberine is also used as wound healing agent. Aqueous & alcoholic extracts have used in wound healing agent.⁵

Type -1 procollagen expression in human dermal fibroblasts regulates by berberine is observed in clinical trial, which also justify the use of berberis aristata historically in aging skin, non-healing wound, local application in acne vulgaris, UV induced skin inflammation is potency inhibited by berberin.⁶

Liquorice extract can be efficiently used to formulate cosmetic products for the protection of skin and hair against oxidative damage. Also, the antioxidants present, may contribute to decrease in skin melanin content. Licorice extract is of great use of formulate cosmetic products with purifying & antiseptic activities.⁷

2). The extract of liquorice is reported to be an effective pigment lightening agent. It is the safest pigment lightening agent known with least side effect Liquiritin present in liquorine extract disperse melanin, thereby inducing skin lightening.⁸

CONCLUSION

The following conclusions were drawn after completing the study.

Kikkisa is a *Tridosha* condition which appears in the 7th month of pregnancy according to Ayurveda and from 24-28 weeks of pregnancy according to modern. Maximum number of patients were between 25-30 years. Mostly patients were of *Vatta Pradhan Kapha Prakruti*. *Daruharidra* & *Yashtimadhu* gel found to be moderately effective in *Kandu* (Itching) & *Daha* (Burning) form of *Kikkisa*. Minimally effective on *Vaivarnya*. Less effect was seen on stretch marks.

Daruharidra and *Yashtimadhu* are a drug used since ancient time as a colouring agent. It acts as a skin protective and healing herb by virtue of wound healing, antimicrobial, antifungal and anti-bacterial properties which is revealed by my re-search. Therapeutic use of *Daruharidra* and *Yashtimadhu* for skin ailments can be

proved on the basis of available references for *Varnya*, *Keshya*, *Kandughna* and *Kushthaghana* action from various literature. Women are more conscious towards their appearance leading more consumption of Cosmeceutical products in day to day life. *Yash-Timadhu* prevents itching and other skin infection and promotes healing process of skin. So, it can be raised as important ingredient in development of herbal cosmeceutical product for prevention of *Kikkisa* (*Striae gravidarum*).

REFERENCES

1. Astanga Hardyam of Shrimadvagbhata translated by Dr. Brahmanand Tripathi, Chaukhamba San-skrit Pratisthan Delhi, Reprint year 2012, chapter 1ST, shloka 58, pg no. 348
2. Bhel Samhita of Bhel translate English commentary by Dr. K.H. Krishnamurthy editor Prof. Pri-yavrat Sharma, Chaukhambha Visvabharati Varanashi, Reprint year 2006, chapter 8, shloka 8, pg no.243
3. Dr. Bramhanand Tripathi, Astanga Hridayam of Srimadvagbhata edited by Nirmala hindi commentary, Sharirasthan: published by Chaukhamba San-skrit sansthan Prakashan Delhi. Reprinted 2012-page no. 349
4. Prof. P.V. Sharma, Dravyaguna Vigyana, Vol 2 Varanasi, Chaukhambha Bharati Academy, U. P 2005. Page No.538
5. Biswas Tuhin Kant, Mukherjee, Biswapal, plants Medicines of Indian origin for wound healing activity, A review Internal Journal of lower Extremity wound 2003 Mar 2(1) 25-39
6. Pulok Mukherjee, Niladari Maitya, Neelesh K Nema, Birendra K Sarkar Bioactive compound from natural resources against skin again phyto-medicine 2011 Dec (19) 64-73
7. Alonso J, Tratado de fitofarmacos y Nutraceuticos, Barcelona corpus 2004; 905-9011
8. H. Cronin & Z.D. Draelos "Top 10 botanical ingredient in 2010 anti-aging creams" Journal of cosmetics Dermatology Therapy 2010:9 (3) 218-225

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