

A Review On Kikkisa Wsr To Striae Gravidarum

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ABSTRACT

Pregnancy is a phase of women's life during which she undergoes a lot of state of emotions. During the period of 9 months, major changes both physically and mentally occurs. One such change is the occurrence of linear lesions commonly found on the *Udara*, *Stana* & *Uru*, which are known as *Kikkisa*. It is a clinical entity which appears in the 7th month of pregnancy. They are characterized by *Kandu* (itching), *Vidaha* (burning sensation), and *Rekhaswaroop Twak Sankocha* (linear striae).

Based on the similarity of features, it can be correlated to Striae Gravidarum in contemporary science. Till the current day, there is no permanent cure which has been proved.

KEY WORDS: *Kikkisa*, Striae Gravidarum, *Kandu*

INTRODUCTION

Women play the important role in *Upatti*, *Dharana* and *Poshana* of *Garbha*. Pregnancy is the most important and precious part of women's life. During which she undergoes a lot of state of emotions. During the period of 9 months, she undergoes major changes both physically and mentally. Acharya Charaka has given specific importance to pregnant women and has compared them with *Taila Poorna Patra* [The vessel filled with oil in which care is taken to avoid spillage].

Striae gravidarum are linear marks with varying length and breadth found in pregnancy. They are predominantly found in the abdominal wall below the umbilicus, sometimes over the thighs and breasts. These stretch marks represent the scar tissues in the deeper layer of the cuties. Initially these are pinkish but after the delivery, the scar tissues contract and obliterate the capillaries and they become glistening white in appearance and are called striae albicans. In Ayurveda it is correlated to *Kikkisa*. *Kikkisa* is the clinical entity which manifest in 7th month of pregnancy. It is seen in about 50-90% of women during pregnancy.

In the 7th month of pregnancy due to growth of scalp hair of foetus, mother gets *Vidaha* resulting in the formation of *Kikkisa*. But Atreya says the growing fetus displaces the doshas upwards, thus *Vata*, *Pittu* and *Kapha* reaching *Uras* produce *Daha* which causes *Kandu* (Itching). In the present era everyone is concerned regarding their looks. The external appearance of a person plays a major role in boosting their self-confidence.

Definition

- किक्किसः चर्म विदारण ।
- रेखास्वरूपस्त्वक्संकोचः किक्किसम् ॥ (अ० सं० शा० ३/९ की इन्दु टी०) ¹

Paribhasha

- रेखास्वरूपस्त्वक्संकोचः किक्किसम् ॥ (अ० सं० शा० ३/९ की इन्दु टी०) ²

Indu says linear contractions of skin tissue is called *Kikkisa*.

- उरुस्तनोदरे बलिविशेषा रेखाकारास्तत्काले प्रायो ये जायन्ते ते किक्किससंज्ञाः । कैश्चित्कैरिव पूर्णता किक्किसानि इति व्याख्यायि । पाणिपादांसमूलेषु विविधः संतापः विदाह उच्यते (अ० ह० शा० १/५८ की अरुण० टी०) ³

The linear striations on *Uras*, *Stana* and *Udara* are called *Kikkisa*.

According to Acharya Charaka

तत्र गर्भस्य केशा जायमाना मातुर्विदाहं जनयन्तीति स्त्रियो भाषन्ते; तत्रेति भगवानात्रेयः, किन्तु गर्भोत्पीडनाद्वातपित्तश्लेष्माण उरः प्राप्य विदाहं जनयन्ति, ततः कण्डूरुपजायते, कण्डूमूला च किक्किसावाप्तिर्भवति [Cha Sha 9/32] ⁴

During 7th gestational month the growth of fetal hair produces *vidaha* causing *kikkisa*. Atreya disagrees saying it's due to the displaced *Vatadi doshas* which move in the upward direction reaching *Uras* causing itching and eventually *Kikkisa* develops.

युगपदेव तृतीयात्यन् निभ्यते: केशा अपि तदैव जाता: क्रमेण वर्धन्ते न सप्तमे मासि इति भावः (च. सं. शा.८५२ चक्र. टी)⁵

Chakrapani disagrees saying that growth develops by 3rd month and not by 7th month; hence the formation of *Kikkisa* is due to *Garbha Utpidana*

Chikitsa

तत्र कोलोदकेन नवनीतस्य मधुरौषधसिद्धस्य पाणितलमात्रं काले कालेऽस्यै पानार्थं दद्यात्, चन्दनमृणालकल्कैश्चास्याः स्तनोदरं विमृदीयात्, शिरीषधातकीसर्षपमधुकचूर्णैर्वा, कुटजार्जकबीजमुस्तहरिद्राकल्कैर्वा, निम्बकोलसुरसमञ्जिष्ठाकल्कैर्वा, पृषतहरिणशशरुधिरयुतया त्रिफलया वा; करवीरपत्रसिद्धेन तैलेनाभ्यङ्गः; परिषेकः पुनर्मालतीमधुकसिद्धेनाम्भसा; जातकण्डूश्च कण्डूयनं वर्जयेत्त्वग्भेदवैरूप्यपरिहारार्थम्, असह्यायां तु कण्ड्वामुन्मर्दनोद्धर्षणाभ्यां परिहारः स्यात्; मधुरमाहारजातं वातहरमल्पमस्त्रेहलवणमल्पोदकानुपानं च भुञ्जीत [Cha Sha 9/32]⁶

Abhyantara

- Butter prepared with *Madhura Gana Dravya* (1 tola) with *Kola* and *Kwatha*

Bahya

- Paste of *Chandana* and *Mrunala*.
- *Churna* of *Sirisha*, *Dhataki*, *Sarsapa*, *Madhuka*.
- *Kalka* of *Kutaja*, *Arjaka Bija*, *Musta*, *Haridra*.
- *Kalka* of *Nimba*, *Kola*, *Surasa*, *Manjishta*.
- *Triphala* mixed with blood of deer and rabbit.
- Gentle massage with oil boiled with *Karavira Patra*.
- *Parisheka* with *Kwatha* of *Malati* and *Madhuka*.

Pathya- *Madhura Ahara* without *Sneha* and salt with little water as *Anupana*.

Nishedha – avoid scratching as it may lead to permanent deep scars; instead try friction massage and kneading in cases of itching.

According to Ashtanga Sangraha

तस्मिंस्तु गर्भस्य केशोत्पत्त्या मातुर्विदाहो भवतीति स्त्रियो भाषन्ते। नेति भगवानात्रेयः। गर्भोत्पीडनात्तु दोषा हृदयं प्राप्य विदहन्ति ततः कण्डूर्जायते कण्ड्वा किं- विक्रसम्॥८॥ [A Sa Sha 3/8]⁷

The growth of the foetal hair produces burning sensation causing *Kikkisa*. *Atreya* disagrees saying the displaced *Doshas* due to *Garbha Utpidana* reaches the heart causing itching leading to development of *Kikkisa*.

Chikitsa

तत्र कोलोदकेन नवनीतस्य मधुरौषधसिद्धस्य पाणि- तलमात्रमस्यै दद्यात्। चन्दनमृणालकल्कैश्च स्तनोदरं मृदीयात्। शिरीषधातकीसर्षपमधुकचूर्णैर्वा। कुटजार्जकबीजमुस्तहरिद्राकल्कैर्वा। निम्बकोलसुरसमञ्जिष्ठा- कल्कैर्वा। शशहरिणपृषतरुधिरयुतया वा त्रिफलया। करवीरकरञ्जपत्रकल्कसिद्धेन च तैलेनाभ्यङ्गः। परिषेकः पुनर्मालतीमधुकसिद्धेनाम्भस। कण्डूयनं वर्जयेत्। त्वग्भेदवैरूप्यपरिहारार्थं स्नानोद्धर्तनं च शीलयेत्। मधुरं चाहारमल्पमल्पस्त्रेहलवणमल्पोदकानुपानं भुञ्जीत॥ [A Sa Sha 3/9]⁸

Abhyantara

- Butter prepared with *Madhura Dravya* (1panithala).

Bahya

- Paste of *Chandana* and *Mrunala*.
- *Churna* of *Sirisha*, *Dhataki*, *Sarsapa*, *Madhuka*.
- *Kalka* of *Kutaja*, *Arjaka Bija*, *Musta*, *Haridra*.
- *Kalka* of *Nimba*, *Kola*, *Surasa*, *Manjishta*.
- *Kalka* of *Triphala* mixed with blood of *Sasa*, *Harina*, *Prsata*.
- Gentle massage with oil processed with *Karavira* and *Karanja Patra*.
- *Parisheka* with *Kwatha* of *Malati* and *Madhuka*.

Pathya- *Madhura Ahara* without *Sneha* and salt with little water as *Anupana*

Nishedha- Avoid scratching as it may lead to deep seated ugly scars.

According to *Ashtanga Hridaya*

- गर्भोत्पीडिता दोषास्तस्मिन् हृदयमाश्रिताः । कण्डु विदाहं कुर्वन्ति गर्भिण्या किक्किसनि ॥ (अ.ह. शा. १५८)
- उरुस्तनोदरे बलिविशेषा रेखाकारास्तत्काले प्रायो ये जायन्ते ते किक्किससंज्ञाः । कैश्चित्कैरेव पूर्णता किक्किसानि इति व्याख्यायि । पाणिपादांसमूलेषु विविधः संतापः विदाह उच्यते (अ० ह० शा० १/५८ की अरुण० टी०)⁹

The growing foetus displaces *Doshas* upwards, reaches the *Hridaya* causing itching, burning sensation called *Kikkisa*.

Chikitsa

नवनीतं हितं तत्र कोलाम्बुमधुरौषधैः।

सिद्धमल्पपटुस्नेहं लघु स्वादु च भोजनम्॥५९॥

चन्दनोशीरकल्केन लिम्पेदूरुस्तनोदरम्।

श्रेष्ठया वैणहरिणशशशोणितयुक्तया॥ [A Hr Sha 1/ 58-59]¹⁰

Abhyantara

- Butter processed with *Madhura Dravya* (1 tola) With *Kola Kwatha*.

Bahya

- Lepa of *Chandana*, *Usira Kalka*.
- *Triphala* mixed with blood of *Sasa* or *Mriga*.
- Massage with *Taila* processed with *Karavira Patra*.
- *Parisheka* with *Patola*, *Nimba*, *Manjishtha*, *Tulasi Kwatha*.
- Bath with *Daruharidra* and *Madhuka Kwatha*

According to *Bhela Samhita*

सप्तमे तु खलु मासे गर्भप्रपीडिता वातपित्तश्लेष्माणो (ण) उरः प्राप्य विदह्यमाना कण्डूं जनयन्ति । तेन किक्किसानि जायन्ते । [Bhela Sam Sha 8/6]¹¹

During 7th month, the *Doshas* are displaced by *Garbha* towards *Uras*, produces itching and burning sensation causing *Kikkisa*.

Chikitsa

स्त्रीणां (तुर्ण) त्रिफलाचूर्णं शशरुधिरेण पिष्ट्वा तेनास्याः तान्यालेपयेत् ॥ (भे० सं० शा० ८/६)¹²

Triphala Churna made into paste with blood of *Sasa* is used externally

STRIAE GRAVIDARUM

Striae, or stretch marks, are a common complaint and can be distressing. They may affect the abdomen, buttocks, thighs, breasts, back, axillae and groin. They are classified according to appearance or epidemiology, as

- i) Striae atrophicans (thinned skin)
- ii) Striae gravidarum (following pregnancy)
- iii) Striae distensae (stretched skin)
- iv) Striae rubrae (red), striae alba (white)
- v) Striae nigra (black)
- vi) Striae caerulea (dark blue)¹³

Striae gravidarum are slightly depressed linear marks with varying length and breadth found in pregnancy. They are predominantly found in the abdominal wall below the umbilicus, sometimes over the thighs and breast. These stretch marks represent the scar tissues in the deeper layer of the cutis.

Initially these are pinkish, reddish purple but after the delivery, the scar tissue contract and obliterate the capillaries and they become glistening white in appearance and are called striae albicans. Apart from the mechanical stretching of the skin, increase in aldosterone production during pregnancy is the responsible factor. They are at least partially tension related, but there are other factors.

In multiparous women, in addition to the reddish striae of present pregnancy, glistening, silvery lines that represent the circatrices of previous striae are frequently seen.

In a study of 110 primiparous patients, it reported that 48 percent developed striae on their abdomen, 25 percent on their breast and 25 percent on their thighs. The strongest associated risk factors were weight gain during pregnancy, younger maternal age and family history.

Biopsy tissue samples of SG show disorganization, shortening and thinning of the elastic fiber network compared with tissue samples of normal skin. Histologically these lesions show a decrease and reorganization of the dermal elastin fiber network.

These stretch marks are undesirable to most women, but unfortunately they are unpreventable. Treatment is also problematic, but some lesions respond to laser and a variety of topical applications. Controlled weight gain during pregnancy and massaging the abdominal wall by lubricants like olive oil may be helpful in reducing their formation¹⁴

ETIOLOGY

Striae are a form of dermal scarring associated with stretching of dermis. They often result from a rapid change in weight (gain or loss) or associated with endogenous or exogenous corticosteroids.

Proposed mechanisms relate to

- i. Hormones
- ii. Physical stretch
- iii. Structural alterations of dermal collagen and elastic tissue.

Striae are more common in females than in males and may be more common in certain races. They can appear more prominent in dark skinned individuals. A positive family history is a risk factor for striae.

PATHOPHYSIOLOGY

Pathophysiology is thought to involve elastases released from mast cells and macrophage activity. Elastolysis of mid dermis is followed by reorganization of collagen and fibrillin. Histopathology of striae rubrae reveals excessive fine elastic fibers in the papillary dermis with thicker tortuous.¹⁵

HYPERPIGMENTATION DURING PREGNANCY

This develops in up to 90% of women. It is usually more accentuated in those with a darker complexion. The midline of the anterior abdominal wall skin. Linea alba takes on dark brown-black pigmentation to form the linea nigra. Occasionally, irregular brownish patches of varying size on the face and neck, giving rise to chloasma or melasma gravidarum– the so called mask of pregnancy. Pigmentation of the areola and genital skin may also be accentuated. These pigmentary changes usually disappear, or at least regress considerably, after delivery. Oral contraceptives may cause pigmentation. Levels of melanocyte stimulating hormone, a polypeptide similar to corticotrophin, are elevated remarkably throughout pregnancy. Estrogen and progesterone also are reported to have melanocytes stimulating effect.¹⁶

TREATMENT

There are no clearly useful treatments for stretch marks, although there are many different suggestions on how to remove them or lessen their appearance. Various efforts that have been tried including laser treatments, glycolic acid, and micro dermabrasion. Topical tretinoin is categorized by the FDA as a known teratogen (causing malformations in fetuses) in animals, without adequate human studies on safety in pregnancy. Carboxytherapy is a known procedure; however, there is a lack of evidence to support how effective it is. Some of the effective treatments are Laser treatment, Glycolic acid, Microdermabrasion.¹⁷

DISCUSSION

Kikkisa is explained by almost all *Acharyas* as an entity that occurs during the 7th month of pregnancy due to *Garbotpidana* and vitiation of *Vatadi doshas*. In *Bhrihatrayi's*, *Kikkisa* is described just after the 7th month of *Garbhini*. In modern, striae gravidarum develops after 2nd trimester. *Acharya Sushruta* has not elaborated about it.

Twak is a *Sthana* of *Sparshanendriya Twacha*, *Charma* words are used for the skin in classics. *Twak* means the covering of the body and it is used in sense of covering. *Twacha* is the *Upadhatu* of *Mamsa*. It is developed from *matruja bhava*. *Twacha* has direct relation between *Dosha*, *Dhatu*, *Mala*-a structural and functional unit of the body. *Acharya Bhela* has given specific period for development of *Kikkisa* that is in 7th month of pregnancy. It is characterized by *Kandu* (itching), *Vidaha* (burning sensation) and *Rekha swaroopa twak sankocha* (linear striae). These symptoms have close resemblance to Striae gravidarum in the contemporary science. During pregnancy there will be remarkable changes in the body of the women due to the physiology of the body to adapt and provide the necessary requirements for the maintenance of the pregnancy. The stretch marks are caused by the mechanical stretching that occurs during the pregnancy period. Apart from that, hormonal and genetic factors also contribute to the formation of these striae. The onset is after the mid pregnancy and they commonly develop in the abdomen, breasts and thighs. When there is formation of stretch marks on her body, this will be of great concern to the mother as it will be causing permanent scar in her body.

There are many emollients and over the counter topical applications are marketed and used by the pregnant women with intention of preventing striae or reducing the severity resulting in considerable effort and expense, despite the uncertainty whether any have benefit. In *Ayurveda*, many preparations in the form of *Pana*, *Lepa*, *Abhyanga*, *Parisheka* etc are mentioned for the management of *Kikkisa* which are easy to prepare and are cost effective.

CONCLUSION

The linear lesions commonly found on the *Udara*, *Stana* & *Uru* during pregnancy are known as *Kikkisa*. *Kikkisa* is described in the classics by *Acharya Charaka*, both *Vagbhata* and *Acharya Bhela*. It is a clinical entity which appears in the 7th month of pregnancy. They are characterized by *Vidaha* (burning sensation), *Kandu* (itching) and *Rekhaswaroopa Twak Sankocha* (linear striae).

Kikkisa is correlated with striae gravidarum on the basis of similarity of signs and symptoms. Striae gravidarum are dermal lesions common in pregnancy, with significant physical, psychological and hormonal impact. Many therapeutic modalities are available but none of them was effective in completely eradication the condition. The use of topical therapies aims to provide lasting improvements in pigmentation and texture.

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