



IJCSPUB PUBLICATION (IJCSPUB.ORG)

INTERNATIONAL JOURNAL OF CURRENT SCIENCE (IJCSPUB)

An International Open Access, Peer-reviewed, Refereed Journal

AYURVEDIC CONCEPT OF SCAR MANAGEMENT

Dr. Deepak Singh

B.A.M.S. M.S. (Shalya) Ayu.

Dr. Priyanka Mourya

B.A.M.S.M.D.(Kayachikitsa) Ayu.

Abstract: Ayurveda is the science of health which deals human being and their problems in a natural way. This science is growing and exploring day by day to beat the challenges of the modern medical technology. Scar management is one of the biggest problems for skin specialists and plastic surgeons. Ayurveda professionals also have not much explored this vast knowledge about scar management through their specialty.

I. INTRODUCTION

Ayurveda is the science of health which deals human being and their problems in a natural way. This science is growing and exploring day by day to beat the challenges of the modern medical technology. Scar management is one of the biggest problems for skin specialists and plastic surgeons. Ayurveda professionals also have not much explored this vast knowledge about scar management through their specialty. This study is to look over the new possibilities of scar management through ayurveda.

Scars are the normal and unavoidable outcomes of tissue healing where the fibrous tissue replaces normal tissue as a part of the remodeling phase of wound healing. The collagen synthesized initially is random and constituting bulky fibers, which eventually remodels along the lines of tension. As this normal process occurs there is a risk of adhesions in the adjacent tissues. Eventually, these collagen fibers are replaced with stronger and more organized collagen, representing a smoother and flat scar which is paler in appearance.

CONCEPTUAL STUDY

• REVIEW OF AYURVEDIC LITRATURE

AYURVEDIC CONCEPT OF WOUND HEALING: The concept of wound healing is well explained by Sushruta, Acharya Charak, and vagbhata. Scar has been termed as Vrana vastu, and it is said to be remain as continued till whole life. Their classification system is counterpart of modern classification. Three stages of wound healing are mentioned.

1. Shuddha Vrana: An ulcer (vrana) which is of the same color with the back of the tongue, soft, glossy, smooth, painless, well shaped and marked by the absence of any kind of secretions whatsoever, is called a clean ulcer (shuddha vrana). An ulcer (vrana) which is free from any doshaj vicar i.e. vata, pitta and kapha, having blackish brown margin, free from slough, normal contour, mild painful and having no discharges can be considered as shuddh vrana.

2. Ruhyamaan vrana: Vrana, which has grayish pigeon like colour, having no discharge and with good amount of granulation tissue, is known as ruhyamaan vrana.

3. Rudh Vrana: An ulcer whose margins are healed, free from any nodular swellings, no oedema, no pain, having normal skin color and normal contour is called samyag rudh vrana.

AYURVEDIC CONCEPT OF SCAR MANAGEMENT:

The tissue repair and wound healing is a very important aspect of shalya tantra. The contents of Sushruta samhita are focused on Vrana and vrana ropana and many portions of samhita are highlighting the essence of wound healing.

Sushruta has given sixty types of treatment modalities for wound care, known as shashti upkrama. Shashti upkram has been described in a very scientific manner and a sequence of therapies has been maintained for stepwise conditions of wound healing.

Vaikrita paham is a special type of care which is given in the last stage of wound healing for the purpose of scar remodeling. Vaikritapaham as described by sushruta is of five types.

Vaikritapaham

1. Krishna Karma
2. Pandu Karma
3. Pratisaaran
4. Lom-sanjanan
5. Lomaapaharan

1. Krishna Karma: The blackening of a white cicatrix, which is the poor result of bad granulation, should be made by this method.

Bhallatak seeds soaked in cow urine and then dried in sun light repeatedly for one week. Then put them in a pitcher filled with milk for one more week. Now obtain the oil from these seeds. The hoofs of anup and gramya animals should be burnt and pounded together into extremely fine powder. Now mix this powder with bhallatak oil and apply over white cicatrix.

2. Pandu Karma: The natural and healthy colour (pandu) of the surrounding skin should be imparted to a cicatrix which has assumed a black colour owing to the defective or faulty healing in the following manner.

The fruits of rohini should be immersed in goats' milk for seven nights and afterward finally pasted with the same milk, should be applied to the skin. Powder of new earthen pot, vetas roots, shal roots, kasis, and madhu yashti pasted together with honey may be used. The hollow rind of kapitth fruit, from which the

pulp has been removed should be filled with the urine of goat together with kasisa, rochana, tuttha, hartal, manahshila, scrapings of raw bamboo skin, prapunnad, and rasanjana are buried a month beneath the roots of arjuna tree after which it should be taken out and applied to the black or hyper-pigmented cicatrix.

3. Pratisarana (Rubbing): The shell of hen's egg, katak, madhuk, sea-oyster, crystals (pearl according to Jejjata and Brahmdev) taken in equal parts should be pounded and pasted with the urine of cow and made into boluses which should be rubbed over the cicatrix.

4. Rom-sanjanana: (Hair producers) The burnt ashes of ivory and pure rasanjana pounded and pasted with goat milk should be applied to the spot where the appearance of hair is desired. An application of this paste would lead to the appearance of hair even on the palm of the hand. Another alternative is the pulverized compound consisting of the burnt ashes of the bones, nails, hairs, skin, hoof, horns, of any quadruped, over the part of the body, previously anointed with the oil, which would lead to the appearance of hair in that area. And lastly the plaster composed of the sulphate of iron, and tender karanja leaves pasted with the expressed juice of kappitha, would be attended with the same result.

5. Loma-paharan (Hair deplitors): The hairs of the ulcerated part of body found to interfere with the satisfactory healing up of the ulcer, should be shaved with a razor or clipped with the scissors, or rooted out with the help of the forceps. As an alternative, an application of the plaster consisting of the two parts of the pulverized (burnt ashes of) conch shell and one part of Hartala pasted with shukta over the desired part, would be attended with the same result. A compound made up of oil of Bhallataka, mixed with milky exudation of Snuhi should be used by intelligent physician as a depilatory measure. As an alternative, burnt ashes of the stem of plantain leaves and dirghvrinta (Shyonaka) mixed with the rock salt, hartala and seeds of shami, pasted with the cold water should be as a good depilatory. A plaster composed of ashes of the domestic lizard, plantain, hartala and the seeds of Ingudi burnt together and pasted with the oil and water and baked in the sun may also be used for eradicating of the hairs in the affected locality.

SCAR MANAGEMENT AS PER CHARAKA SAMHITA

1. Twak Shuddhikara (Skin Purification): Manahshila, Ela, Manjishtha, Laksha, Rajni dway.

2. Twak Trishnkara (For hyperpigmentation of white cicatrix): Ayorajah, kasis, Tifla kusuman.

3. Twak Savarnikaran (For normal colour of skin): Kaliyak, nata, amrasthi, hem(nagkeshar), kanta(manjishtha), rasottama(parad) all mixed with cow urine.

4. Varnakara lepa: Dhyamak(fragrated grass), ashwatth, nichul moola(baint), laksha, gairik, hema, amritasanga, kasis. Rom-sanjanan: skin, hairs, hoofs, horn, bones ashes of quadrupeds.

SCAR MANAGEMENT AS PER ASHTANG HRIDAYA

1. Twak Shodhana: Laksha, manahshila, manjishtha, Hartala, Nisha dway all pasted with honey and ghee.

2. Twak Savarnikarana lepa: Black Agaru, priyangu, amrasthi, nagkeshar, manjishtha, saindhav all mixed with cow urine.

3. Rom-sanjanan: 1. Vaaran dant mashi 2. Nail, hairs, bones, skin, hoofs, horn, and ashes of quadrupeds.

REVIEW OF MODERN LITERATURE:**SCAR FORMATION**

Wound healing has mainly three overlapping phases:

1. Inflammation 2. Proliferation 3. Remolding

1. Inflammation: starts with disruption in capillaries and bringing of haemostatic cascade. By 4 to 5 days, the second stage of healing, proliferation takes place with the migration of fibroblasts into the wound matrix.

2 . The proliferative phase: is characterized by epithelialization, formation of granulation tissue, revascularization, wound contraction, and extracellular-matrix reorganization. The fibroblasts are maximally up-regulated in 2 to 4 weeks and replace the fibrin with a more robust matrix of collagen fibers. The initial elastic fiber network is no longer observed in the mature wound, and due to which the firmness and absence of elasticity of scars present in later condition.

3. Remolding phase: This generally begins after 3 weeks of tissue injury. In microscopic findings of this stage, decreases in fibroblast count, hardening of collagen fibers, and occlusion of blood vessels is found. Continuous collagen production and degradation has an effect of remodeling the mature wound matrix for approximately 6 months post injury.

The remodeling phase is the most accountable for variations in scar qualities. A healing wound can become an unsightly scar during this period. As the wound closes and evolves into a scar-

There are important processes:

- a) Myofibroblast disappearance, the synthesis of extracellular matrix, and replacement with a collagenous matrix.
- b) Deregulation of these apoptotic phenomena during wound healing is an important cause of excessive scar formation and development of pathological scarring

Review of Drug:

कालीयकलताम्रास्थिहेमकालारसोत्तमैः ।

लेपः सगोमयरसः सवर्णकरणः परः ॥

भैषज्यरत्नावली (sadyovrana chikitsa Prakran)

48/13

Botanical Introduction of contents of Twaksawarnikaran yoga

Content	Botanical Name	Family	Part used
Daruharidra (Kaliyaka)	Berberis aristata	Berberidaecae	Kand
Priyaangu	Callicarpa macrophylla	Verbenaceae	Patra
Amrasthi	Magnifera indica	Anacardiaceae	Falashthi
Nagkeshar	Mesua ferrea	Guttiferae	Punkeshar
Manjishtha	Rubia cordifolia	Rubiaceae	Moola

Contents of Twaksawarnikaran Lepa :- (References)

According to Bhav Prakash Nighantu the contents of drug with references are as follows:-

1. Daruharidra (Kaliyaka) – Bhav Prakash Nighantu, Haritakyadivarga , shloka 201- 202
2. Priyangu – BhavPrakashNighantu,Karpuradivarga, shloka 101
3. Amrasthi – BhavPrakashNighantu, Amradifalavarga, shloka 17
4. Nagkeshar - Bhav Prakash Nighantu, Karpuradivarga , shloka 69
5. Manjishtha - – Bhav Prakash Nighantu, Haritkyadivarga, shloka 189
6. Ghrita - – Bhav Prakash Nighantu, Ghritavarga, shloka 01
7. Gomayrasa (gomutra)- Bhav Prakash Nighantu, Mutravarga (Gomutragudnaha) shloka 01

Ayurvedic Pharmacodynamic Properties

Content	Rasa	Guna	Virya	Vipaka	Karma
Daduharidra (Kaliyaka)	Tikta, kashay	Ruksha,Laghu	Ushna	Katu	Pittasarak, raktashodhak
Priyangu	Tikta, kashay, madhur	Guru, ruksha	Sheet	Katu	Dahashamak
Amrasthi	Kashay	Laghu, ruksha	Sheeta	Katu	Varnya, Vranaropaka, raktastambhak
Nagkeshar	Kashay, tikta	Laghu, ruksha,	Anushna	Katu	Varnya raktastambh ak, kustaghna
Manjishtha	Tikta, kashaya,madhur	Guru, ruksha	Ushna	Katu	Varnya rakta prasada,var nakara
Ghrita	Ishat madhur	Lagu,tikshana	Ushna	Madhur	Avidahi, tridoshamak
Gomutra (Gomayrasa)	Katu,tikta, kashay	Ushna, teekshna	Ushna	Katu	Kandu, shoethnashak

Diagnostic criteria

Patients characterized with *Niruja* (painless), *Shyava* (bluish black), anywhere in the body were diagnosed to have *Scar*.

Methods of treatment:

i) **Selected Drugs:** Twaksawarnikaran Lepa.

ii) **Form of Medicine:** Lepa

iii) **Composition of Drug:**

Contents	Quantity
Daruharidra (kaliyaka)	1 part
Priyangu	1 part
Amrasthi	1 part
Nagkeshar	1 part
Manjishtha	1 part
Ghrita	1 part
Gomutra	1 part

Preparation of Medicine:

Lepa As told earlier, in the ancient Ayurvedic classics there was no separate preparation told for external usage. Kalka was the term used for the preparation which was used both for external and internal use. But later on, in books like Sharangadhara Samhita, Bhava Prakasha, the term 'Lepa' was used for the preparation which was exclusively used for skin application.

Method of lepa preparation:

The preparation of lepa is similar to kalka. One or more herbs are taken in fresh form and grounded to paste form. If the part of the plant is dry, small amount of liquid like water, milk can be added and grounded to paste form. The words Lipta, Lepana have been used as synonyms to Lepa.

द्रव्यमार्द्रम् शिलापिष्टं शुष्कं वा सद्रवम् तनु । देहे प्रलेपनार्थं तल्लेप इत्युच्यते बुधैः ॥Yadavji.

Types of Lepa

The classification of lepa has been made according to different criteria.

Based upon the quality & nature of herb**Pralepa:**

Lepa prepared from plants having Sheeta veerya (cold potency).

Lepa applied, when it is cold to touch and it imparts sheetalata (coldness) to the body.

This type of lepa is applied in increased pitta dosha to reduce it.

Example- lepa prepared from Sandalwood

Pradeha:

Lepa prepared from plants having Ushna veerya (hot potency).

Lepa applied when it is little hot to touch and it imparts ushnata (heat) to the body.

This type of lepa is usually applied in increased kaphaja dosha condition to reduce it.

Example- lepa prepared from Pippali (Piper longum), Chitraka (Plumbago zeylanica)

Alepa: This type of lepa is a mixture of Pralepa and Pradeha.

Varnya lepa Varnya lepa: This type of lepa is used to increase the complexion of the skin.

Based upon the action of the lepa:

Doshagna lepa.

Shothagna lepa.

Vishagna lepa- The type of lepa which is applied to reduce the poisonous effect caused due to insect bite, poisonous animals, after coming in contact with poisonous plants etc.

Lepa thickness

The thickness for different types of lepas has been explained in Ayurveda.

Doshagna lepa- 1/4th angula thick

Vishagna lepa-1/3rd angula thick

Varnya lepa- ½ angula thick

*1angula is about 2 cm thick

Rules and regulations**Rules and regulations to be followed during the application of the lepa.**

All the lepa prepared are for instant and single use.

Lepa is applied against the direction of the hair follicles for better absorption.

Lepa is removed soon after drying from the skin.

Fresh lepa is applied only after removing the previous layer of lepa from the skin.

Lepa should not be applied during night time except in conditions like poisonous bites, pus filled wounds.

The lepa which is applied during the night time prevents the exchange of body heat with the atmosphere.

Purpose of lepa

Lepa was formulated with the intention of localized action of the herb. The thickness of various types of lepa is told to enable the active principles present in the particular lepa to be absorbed into the skin and do the desired action when the lepa is in wet condition and before it dries. In some of the diseases, along with lepa, internal medications are also needed.

Method of administration:

Twaksawarnikaran Lepa- once daily for local application

v) Route of Administration:

- **Twaksawarnikaran Lepa-** Bahy upyoga (external application)