



Clinical evaluation of Kasisadi Churna in Avsadan Karma of Vrana

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Vrana is the most important term in the field of Shalya Tantra. Here all the types of Shalya and Shastra karma are lastly result into the formation of the Vrana. The detail description of Vrana is available in the Sushruta Samhita, Charka Samhita, Ashtang Sangraha and Ashtang Hridaya i.e., Brihatrayees. These primary literary sources of Ayurveda described Vrana, their Nidan, Samprapti (etio-pathogenesis) and systematic classification and along with their management including various drug preparations.

Acharya Sushrut Samhita was specialized in Shalya Tantra, during this time the knowledge of Vrana was on its peak, the concept of Vrana forms the central theme of Sushruta Samhita, As emphasized while giving the definition of Shalya Tantra, Acharya's says Tantras in which knowledge of various Shalya, Vrana srava, and dushtavrana along with three stages of Vrana sophia was dealt with Shalya Tantra¹ And therefore Acharya Sushruta provides more extensive details on Vrana from various prospective, described various clinical presentations deeply, pathogenesis and very important sixty essential procedures for the management of Vrana.

Management of Vrana with topical antibiotics is the most conventional method but due to topical antibiotics eschars is separated late, as well as re-epithelialisation and formation of granulation tissues also delayed/or hypergranulations takes place especially in full thickness injuries. The Vrana are treated with growth factors and collagens in the recent era, but the carcinogenesis is one of the major unwanted side-effect of these agents. Medical practitioners are using a number of dressings to heal such wounds, namely absorptive, collagen, anti-microbial, foams, wound filters, hydrogels, composites, contact layers, etc. An Indian medical science was evolved and developed. The detailed description of Vrana and its management was elaborated in the different Ayurvedic texts, Going through these Samhita; about 164 medicinal plants, 24 metals and minerals, and 18 animal products are describe for their wound healing activity and these are termed as Vranaropaka, Vranapaha and Vranya 8.

Drug development on reparationment of hypergranulated wound is the newer area in the field of research in modern medicine. Now World is looking toward Ayurvedic science/pathy, especially the scientists who are developing drug from Natural resources. On screening various Samhita's it was found that correction of hypergranulated wound/Avsadan karma of Vrana is been highlighted on various occasion.

The present work entitled "Clinical evaluation of Kasisadi Churna in Avsadan Karma of Vrana" has been undertaken to explore some new dimensions in management of hypergranulated Vrana.

Keywords: Clinical evaluation; Kasisadi Churna; Vrana; Avsadan Karma**Introduction**

The Shalya Tantra is one of the most precious branch in the field of Ayurveda, which mainly deals with the different types of para-surgical and Surgical procedures, modalities and treatments. The ideal and miraculous therapies of this Indian medicinal system will definatvely improve not only quantity of life but also quality of life. Ayurveda with its holistic approach has to play a vital role in the direction of treatment. Now it's the need of time to get free from disease by providing good results oriented modalities which have been advocated by our Acharya's in the management of every dis-

ease. But their efficacy wants re-establishment by means of genuine and intensive researches.

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- Acharya Sushrut Samhita was specialized in Shalya Tantra, during this time the knowledge of Vrana was on its peak, the concept of Vrana forms the central theme of Sushruta Samhita, As emphasized while giving the definition of Shalya Tantra, Acharya’s says Tantras in which knowledge of various Shalya, Vrana srava, and dushtavrana along with three stages of Vrana sopha was dealt with Shalya Tantra¹ And therefore Acharya Sushruta provides more extensive details on Vrana from various prospective, described various clinical presentations deeply, pathogenesis and very important sixty essential procedures for the management of Vrana. Vrana which means break/discontinuity/part of body/rupture of body tissue. Vrana was classified as Shuddha Vrana i.e. non-infected wound or clean wound and Dushta Vrana i.e. infected wound.
- Active promotion of quick healing and early closure of wound especially in Shuddha Vrana (clean wounds) known as Ropanakarma, which was extensively practised and illustrated by Acharya Sushruta. Ropana karma should be done in Shuddha Vrana. Sushruta has elaborated detailed management of Vrana in the Vranachikitsaadhyaaya. In which Acharya Sushruta has described sixty types of treatment modalities i.e. Shasti Upakaramas to actively treat the Vrana

Wound can be described as break in the integrity of the skin or tissue, disruption of the structure as well as function. After injury, healing is a natural process which was continues in a sequential manner till the formation of a healthy scar. This normal response of wound healing gets disrupted (like weather it may be poor healing or may be hypergranulated wound formation take place) in Certain conditions like hormonal imbalance, nutritional deficiency and various systemic diseases like anaemia, diabetes, malnutrition etc and some local factors like foreign body, infection, hematoma etc either alone or in combination influence the normal pattern of

wound healing. Hence, in present concept all efforts are diverted to keep wound clean during various stages of healing. Now in current surgical practice active promotion of healing in clean wounds is a continuing challenge to surgeon. The researchers are thriving hard to find out the solution of proper healing of wound in less duration of time with minimal or no complication. Across the world many researchers are conducted to find the best formulation with proper wound healing. Now a day a number of patient of poor healing/hypergranulation of wound are regularly encountered in clinical/surgical practice. Now –a-days Silver nitrate is the most common topical application used for dressing of hypergranulation of wound.

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Drug formation



Images of Kasisa Bhasma Preparation
Figure 3: Distribution of respondents by age group.

Result of pharmaceutical study

S.no.	Initial wt of Kasish (gm)	Wt. of Shodita Kasish	Loss(gm)	%loss	Wt. of Kasish bhasma	Loss(gm)	%loss
1.	500gm	360gm	140gm	28%	210gm	150gm	41.66%

Table 1

Required material

- Kasis
- Saphtika

Method of drug preparation

Kasisadi Churna

Kasis Shodhana was done in first with Bringaraja Swarasa as it is Uttama. There are two methods of its preparation in Samhita's.

Method 1

- The Kasis lump were tied in Pottali first and Swedana was done in Dola Yantra with Bringaraja Swarasa for 1 Yama.
- Kasis was totally dissolved in Swarasa leaving the Pottali empty.
- Then the obtained Swarasa was boiled in earthen pot to evaporate the liquid content and obtain Kasis.
- However very little amount of Kasis was procured which was not in the form of Avachurnana Dravya.

Aim and Objective

To study the Avasadan karma of Kasisadi Churna in Utsaditta Vrana/hypergranulated wound.

Inclusion and exclusion criteria

- Irrespective of age group and socio-economic status i.e. all will be considered for this study.
- Utsadita Vrana/Overheated/hypergranulated Vrana {as a result of debridement, infected,diabetic wound,wound of burns}

Exclusion Criteria

- Patient having systemic diseases like S.L.E., HIV etc.
- Patients having any type of bleeding disorders.
- Carcinomic patients.

Criteria for diagnosis

The diagnosis was done on the basis of Utsaditta vana Lakshanas/hypergranulated wound mentioned in Ayurvedic classical textbooks.

Study design

An Open Randomized Clinical Study.

The selected patients were taken.

Trial group

100 patients were treated with Topical application of Kasisadi Churna daily till hypergranulation treated completely and follow up taken at 0th, 3rd, 5th, 7th and on 15th day of treatment.

Drug dosage

As Per Requirement.

SAMPLE SIZE: -100 Patient

It was calculated as per 7% prevalence rate of the Disease at Gaur Brahmann Ayurvedic medical college, Brahmanwas, Rohtak.

Formula: $n = z^2p(1-p)/d$

Here n= sample size

Z= standard normal variable 1.96

P= prevalence

D= error=0.05

i.e. total 100 patients completed the study.

Procedure of treatment

- first of all, cleaning of Vrana should be done with betadiene solution and then normal saline after that proper mobbing of solution done and
- Drug/Kasisadi Churna was applied in the form of Avachurnana in selected patients.
- After that dressing was done on Vrana.
- Treatment was given to the patients till the overheated/hypergranulated/Utsaditta Vrana was managed properly with the normal skin surface.
- Time duration will be different for different patients as it was depends on Vrana size and hypergranulation of patients i.e. The study was conducted till Complete hypergranulation treated and follow up taken at 0th, 3rd, 5th, 7th and on 15th day of treatment.

Before and after treatment with Kasisadi churna.

Case 1



Figure 2

Case 2



Figure 3

Assessment parameter

The assessment was done on the 0th, 3rd, 5th, 7th and 15th day and the progress was noticed in special prepared case sheet as per assessment parameter.

- All the collected data were evaluated statistically.

Objective parameters

- Parimana of Vrana.
- Unit healing time.
- Akriti of Vrana.
- Ubhar/hypergranulation.

Grading of objective parameters

Parimana (size of wound)

The size (length and width) is directly record. The sterile blotting paper is placed over the wound and pressed it with uniform pressure. The impression is directly measure.

- Grade-0-0 cm2
- Grade-1-0.1-1 cm2
- Grade-2-1.1-2 cm2
- Grade-3-2.1-3 cm2
- Grade-4-3.1-4 cm2
- Grade-5-4.1-5 cm2
- Grade-6-5.1-6 cm2

Unit healing time (cm2/day) = Initial surface area of wound – surface area of wound after the treatment/duration of study = surface area healed in sq cm/no of days.

Akriti of Vrana

- Round: 0
- Square: 1
- Triangular: 2
- Not well defined: 3
-

Ubhar/height from skin surface

- Upto 1mm: 0
- Upto 2mm :1
- Upto 3mm :2
- More thgan 3mm:3

Investigation required

- Blood routine.
- HIV, HbsAg.
- BSL-R {F and PP S.O.S.}

Ethical clearance

Ethical clearance was obtained from Institutional Ethics Committee of Shri Krishna Ayurvedic college, Kurukshetra, Haryana.

Statistical Analysis and Discussion

Discussion on Clinical Study

Effect on Vedana (Pain)

Majority of included patients in study were came with mild pain which may be due to as wounds were traumatic i.e. Aagantuja vrana due to local vata dosha involvement but letter on Vedana (Pain) was reduced in patients (98.40%effect was noticed after treatment).

Effect on Srava (discharge)

Majority of included patients in study had very mild (Sanguineous discharge) Srava present but after few days of treatment patients had significant result in decreasing discharge of wound.

Effect on Itching (Kandu)

Itching was not predominant symptom in patients. Only 30 % patients had mild itching before treatment which was reduced completely after treatment.

Effect of burning sensation

Like itching, burning sensation was also an associated symptoms in patients which was completely resolved after getting treatment (95.83%)

Effect on Wound contraction (Size reduction)

In this present study, patients have different sizes of wound ranging from 0.5 sq.cm to maximum 6.2 sq.cm. In study, wound was completely healed and the P value was significant ($p < 0.001$) in study. That means in study wound was reduced/Avsaditt.

Firstly, we were discussing about the length of wound, here p value is $<0.001\%$ (which means result was 98.64% effective in study).

In case of breadth of wound p values is $<0.001\%$ (which means 96.21% result was effective) While when we talk about height of wound then value of p is <0.001 (which means 94.32 % result was effective)

Overall result of therapy

As the overall result, drug effect/Kasisadi Churna on Avasadan Karma of Vrana (wound) by means of early wound Ceased extra granulation of tissues and faster epithelization as discussed

Conclusion

Here the aim of present study was to evaluate the efficacy of Avasadan Karma of Kasisadi Churna on Uttasadit/hypergranulated Vrana. Finally, after vivid discussion on observations and results the following conclusion can be drawn.

It was concluded that there was significant result found in reduction in size of wound and over granulated tissue production in study groups.

The above conclusion was based on preliminary study of Kasisadi Churna in the Avasadan Karma of Vrana with sample size 100 only.

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