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Case Study

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A SINGLE CASE STUDY OF CLINICAL EFFICACY OF TOPICAL APPLICATION OF KARPURA GHRITA IN THE MANAGEMENT OF SADHYO VRANA

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ABSTRACT

Wound management has been a significant area of concern in both modern medicine and Ayurveda. Sadhyo Vrana (fresh traumatic wound) requires prompt treatment to prevent infection, promote healing, and minimize complications. Karpura Ghrita, an Ayurvedic formulation described in the classical texts, is endowed with vrana shodhana (wound cleansing), ropana (healing), and shoolahara (analgesic) properties. This study reports a single case of a 28-year-old female patient with a abrassion wound on the forearm, managed by daily topical application of Karpura Ghrita after proper wound toileting. Assessment was made based on parameters such as pain, inflammation, discharge, granulation tissue, and wound closure. The wound exhibited early reduction in pain and inflammation by the third day, healthy granulation tissue by the seventh day, and complete healing without complications by the tenth day. This case highlights the clinical potential of Karpura Ghrita as a safe, economical, and effective wound-healing formulation. Larger clinical studies are warranted to validate these findings.

KEYWORDS: Sadhyo Vrana, Karpura Ghrita, wound healing, Ayurveda, case study.

INTRODUCTION

Wound healing is a complex biological process involving hemostasis, inflammation, proliferation, and remodeling. In Ayurveda, Vrana Chikitsa has been elaborated since ancient times, with emphasis on cleansing, healing, and preventing recurrence. Sadhyo Vrana corresponds to acute traumatic wounds that demand immediate and effective care.

The wound healing management is one of the crucial problem in surgery till today. As without proper care even a minor and superficial injuries can lead to major complications.^[1] A large share of economy is spent annually for the prevention of complications and management of the wound. The major aspects of the management of wound are prevention of the infection, rapid healing and pacifying the pain.

Sadyo vrana are those which occur suddenly due to trauma/injury. [2] As per Acharva Sushruta, Sadyo vrana or accidental caused are of innumerable shape and size. So that as per shape, size, severity and weapon used, Sadyo vrana is explained in infinite number considering in six type i.e. chhinna, bhinna, viddha, kshataja, pichchita and ghrishta. [3,4] Use of Karpura ghrita in the Sadyo vrana pacified pain and it's not suppurated. [5] Ingredients of Karpura ghrita is easily available in locally, simple procedure and cost effective. Preparation of the formulation easy enough to make them in clinical practice hence they might be prove to be a blessing for the mankind. In this study, Karpura ghrita will be taken into consideration for local application (Malahar) directly on the Sadyo vrana.

Ghrita Kalpana (medicated ghee formulations) are widely used in wound management due to their ability to penetrate deep tissues, provide sustained drug delivery, and promote tissue regeneration. Karpura Ghrita, containing Karpura (Cinnamomum camphora) and ghee, is described as vrana shodhana, ropana, and vedanasthapana. Modern studies also suggest its antimicrobial, anti-inflammatory, and analgesic properties.

Despite classical references, there is limited clinical documentation of Karpura Ghrita in fresh wound management. This case study attempts to bridge that gap by presenting clinical evidence of its efficacy.

REVIEW OF LITERATURE

Ayurvedic review of literature

"सद्यो व्रणा ये सहसा सम्भवन्त्यभिघाततः।"

(अ.ह.२६/१)

Sadyo vrana are those which occur suddenly due to trauma/injury.

"बध बन्ध प्रपतना द्रष्टा दन्त नख क्षतात्।

आगन्तवो व्रणास्तद्वद्विष स्पर्शाग्नि शस्त्रजाः॥"

(च.चि.२५/७)

Aagantuja vrana is due to external causes such as assault, fall, trauma, hitting, due to dental, nail contacts, poison contacts, fire & weapons etc.

"नानाधार मुखैः शस्त्रैर्नानास्थाननिपातितैः।

नानारूपा व्रणा ये स्युस्तेषां वक्ष्यामि लक्षणम॥"

(सु.चि.२/४)

Sadyo vrana is presented on the different parts of the body shown with different kinds of the features as per caused by weapons with various types of edges.

"अनन्ताकृति रागन्तुः स भिषग्भिः पुरातनै। समासतो लक्षणतः षड्विधः परिकीर्तितः॥ छिन्नं भिन्न तथा विद्वं क्षंत पिच्चितमेव च। घृष्टमाहुस्तथा षष्टं तेषां वक्ष्यामि लक्षणम्॥" (स.चि.२/८-९)

As per Acharya Sushruta, Sadyo vrana are innumerable shape and size. So that as per shape, size, severity and weapon used. It is explained in infinite number considering in six types i.e. **chhinna, viddha, kshataja, pichchita** and **ghrishta.**

"कषायमधुरा: शीताः क्रिया: स्निग्धाश्च योजयेत्। सद्योव्रणानां सप्ताहं पश्चात् पूर्वोक्तमाचरेत्॥" a (सु.चि.२/८५)

Sadyo vrana should be treated for seven days with astringent and sweet drugs, cold and unctuous measures; afterwards treatments should be followed as dosas vitiated.

Drug review of literature

"कर्पूर पूरितं बद्धं सघृतं सम्प्ररोहति। सद्य: शस्त्रक्षतं पुंसां व्यथापाकविवर्जितम्॥" (भै.रत्ना.४८/३&च.द.४३/५२)

Wound produces due to trauma are filled with Shatdhauta ghrita along with the Karpura in the Sadyo vrana pacified pain, prevented for suppuration of wound and show fast healing properties.

"कपूर्रः शीतलो वृष्यश्चक्षुष्यो लेखनो लघु:। कफदाहास्यवैरस्यमेदः शोथविषापह:॥" (मद.नि.३/३)

Karpura is claimed to be sitala, vrsya, caksusya, lekhana, laghu, kaphahara, daahahara, aasyavairasyahara, medohara, sothahara and visahara in nature.

"शतधौत घृतम्- क्ली यत् पुनः पुनः सन्ताप्य शीताम्भसा निर्वाप्यते तथा विध सर्पिषि। शतं वारान् शीततोयेन् धौतं फेनितं घृतम् इति ईशानदेव तद् गुणाः- वातपित्तदाहक्षतनाशित्वम्॥" (वैद्यक शब्द सिन्धु कोश)

Shatadhouta Ghrita is prepared by washing the Goghrita with water till the water turns warm and then the warm water is discarded and fresh water is added and the process is repeated for hundred times. This procedure transforms the ghee into a soft, cooling, nourishing, silky ointment which possess the properties of alleviating vitiated vata and pitta dosha, subsided daha and act as vrana ropana.

CASE PRESENTATION

Patient Information

A 28-year-old female, housewife by profession, presented to the Shalya Tantra OPD with chief complaints of – Pain, swelling, burning sensation, moderate bleeding & Abrasion wound present over right forearm following trauma by a slip & fall on road.

History of present illness

As per allied history of patient, She was apparently normal before morning. Suddenly, got injury on right forearm while going in market, after slip and fall on road. She came in PLRD hospital for treatment.

Past History

- No significant past medical and surgical history.
- No history of Diabetic Mellitus, Hypertension, Hypothyroidism & any other bleeding disorders.

History Of Allergy: Not Known

Personal History

- Habitat Rural
- Dietary habits Vegetarian
- Addiction NA
- Bowel habit Regular
- Mental state Normal

Family History

• Father is suffering with Hypertension taken Antihypertensive drugs since 5 yrs.

Examination of patient

General examination

- B.P. (mm Hg) 124/86 mmHg
- Pulse rate 92/min
- Respiratory Rate 22/min
- Temperature 98.6'F
- SpO₂ 99% on R.A.
- GCS E4V5M6
- Pallor NO
- Icterus NO
- Cyanosis NO
- Odema NO
- Gait NORMAL
- LOC NO

- Nasal Bleeding NO
- Ear Bleeding NO
- Vomiting NO
- Pupils B/L Reactive

Systemic Examination

- Respiratory system :- B/L clear
- Cardio vascular system :- S1 & S2 +NT
- Gastro intestinal system :- Soft, NT, BS +NT
- Genito Urinary system :- Normal
- Central Nervous system :- Conscious & Oriented
- Locomotor system :- Normal

Local Examination

- > Site of wound : Right forearm
- > Size of wound

Length: 4 cms

Width: 2 cms

Area: 8 sq. Cm.

- > Floor : Healthy tissue
- > Edge : Slopping
- > Margin: Irregular
- > Surrounding skin: Healthy
- ➤ Odour: Natural
- Colour: Red
- Discharge: Blood
- > Pain: Present
- > Tenderness: Mild

Type of Vrana

• Ghrishta Vrana

Adhishtana of Vrana

Twaka

Treatment Protocol

- Initial Assessment: The wound has been cleaned by saline.
- Application: A thin layer of Karpura Ghrita was applied once a day.
- Dressing: Covered with sterile gauze and bandaging.
- Follow-Up: Everyday assessment was done during dressing.

Drug preparation

- > Stainless steel vessels was cleaned properly and thoroughly rinsed with water.
- > Desired amount of Goghrita was taken in a stainless steel pan.
- > Two times of ghrita of water was added to it.
- ➤ Mardan (kneading) of Goghrita and water was done with the help of manual stainless steel agitator for 5 to 8 minutes.
- ➤ The contents was allowed to settle. The water decanted carefully to avoid loss of ghrita.
- Again little amount of water was added to the previously washed Goghrita and the same process of mardan will be done.
- > This process was done one hundred times to obtain Shatadhauta ghrita.
- ➤ The obtained sample was used further base to prepare Karpur ghrita.
- > The preparation was done according to tirturation (peshana) method for Malhar Kalpana.
- ➤ Vessel used cleaned and rinsed thoroughly with water.
- ➤ 10 gm Shatadhauta ghrita was taken and equal quantity of fine standardized karpoor churna sieved an pharmacy added to it.
- ➤ Shatadhuta ghrita was added in increasing order (upto 60 gm achieved) till a mixture free of grittiness should be obtained.
- > Trituration (peshana) of the above mixture was carried out till a homogeneous mixture is obtained with good consistency.
- The sample of Karpur ghrita Malhar thus obtained and stored.

Drug applications

- Patient was in sitting position taken Right hand on table, on sterile green sheet.
- ➤ Initial wound toileting with normal saline was done.
- Proper cleaning and dry the wound with the sterile gauze.
- Application of Karpura Ghrita was done with the clean and sterile spatula.
- A sterile gauze applied on ointment.

- A thin sterile cotton bandaging was done.
- Repeat this procedure every day till healing done.

Assessment and Observations

Parameters	0 days	5 th days	10 th days	15 th days
1. Pain	2	1	0	0
2. Pain (As visual analogue sc	ale) 2	1	0	0
3. Bleeding	2	1	0	0
4. Bleeding (No. of gauze piec	es) 2	1	0	0
5. Discharge	1	0	0	0
6. Swelling	1	1	0	0
7. Tissue loss	1	0	0	0
8. Odour	0	0	0	0
9. Shape	1	1	0	0
10. Color	1	0	0	0
11. Depth	0	0	0	0
12. Duration	0	0	0	0
13. Tissue type within the would	nd bed 1	1	0	0

Follow – up and Outcome

- Day 0: Wound fresh, pain 7/10 (VAS), mild oozing, swelling present. Dressing with Karpura Ghrita done.
- Day 3: Pain reduced to 4/10, no discharge, inflammation markedly reduced.
- Day 5: Pain 2/10, margins healthy, granulation tissue visible, no foul smell.
- Day 10: Pain 1/10, healthy granulation tissue, wound size reduced, epithelialization initiated.
- Day 15: Complete wound closure with minimal scar, pain 0/10, no infection.

DISCUSSION

The observed results indicate that Karpura Ghrita provided rapid pain relief, controlled local inflammation, prevented secondary infection, and promoted early granulation. Karpura's vedanasthapana property reduced pain significantly by day 3. Anti-inflammatory & antimicrobial action, Controlled swelling and prevented discharge. Wound healing effect of ghrita, Maintained a moist environment, promoted angiogenesis and epithelialization. Actions can be linked with shodhana and ropana properties mentioned in classics. Compared with conventional antiseptic dressings, Karpura Ghrita appears economical, safe, and free from chemical side effects. This combination aids in quicker recovery and reduces scar formation.

CONCLUSION

Topical application of Karpura Ghrita proved highly effective in the management of Sadhyo Vrana. The case demonstrated early reduction in pain and inflammation, absence of infection, and complete healing by the fifteenth day. These findings validate classical Ayurvedic claims and suggest its practical utility in wound management. However, larger clinical studies are needed to establish its efficacy on a broader scale.

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