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A CLINICAL STUDY TO EVALUATE THE EFFICACY OF PRIYANGVADI TAILA IN THE MANAGEMENT OF DUSHTA VRANA

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ABSTRACT

Vrana (wound) is the oldest known ailment. The wound generally heals itself by natural biological process but if it gets infected it delays healing and converts into Dushta Vrana (chronic wound). The healing process in chronic wounds is usually prolonged which results in a poor anatomic outcome. In India, most of the population still reside in poor hygienic and malnourished conditions, so the incidence of infection is maximum and delayed wound healing is common. Application of the Taila yoga for Shodhan (cleansing) and Ropana (healing) is one among the 60 upakrama (treatment procedures) of Vrana. The study was conducted on 30 clinically diagnosed patients of Dushta Vrana and were treated with Priyangvadi Taila for local application and Dashak Guggulu orally. On completion of study, the statistical analysis

concluded highly significant results. Overall 83% patients were cured and 16% patients were markedly healed. It can be concluded that *Priyangvadi Taila* have high efficacy in both *Vrana Shodhan* and *Ropana* (wound cleansing and healing), without producing any adverse effects and hence can be used as an alternative herbal approach for the treatment of *Dushta Vrana*.

KEYWORDS: Dushta Vrana, Chronic Wound, Priyangvadi Taila, Dashak Guggulu.

INTRODUCTION

The break or loss of continuity of body tissue or part of body is Vrana^[1] (Wound). The wounds which need extra therapeutic effort or more conscious approach for their management can be considered as Dushta-Vrana. The wound generally heals itself by natural biological process but factors like infection, inappropriate blood supply, malnutrition, diabetes hinder the wound healing process. Despite rapid urbanization in India, most of the

population still reside in poor hygienic and nutritional conditions, so the incidence of infection is maximum and delayed wound healing is more common. The concern of chronic wounds is compounded by other factors such as low literacy rates and poor access to healthcare. Thus, wounds and particularly chronic wounds are a major concern for the Indian population. Even though of various modern techniques and antibiotics development, chronic wounds continue to pose a challenge to physician. A meticulous description of Vrana right from its etiology to complete management have been mentioned in various ayurvedic especially Sushruta Samhita. Acharya Sushruta Shastiupakarma^[2] (60 procedures) for complete wound management from its manifestation to the normal rehabilitation of wound site.

Since clean and infection free wounds often heal faster, it is important to find out a single and effective formulation which possesses both i.e. Vrana Shodhan and Ropana (wound cleansing & healing) properties. For the purpose of Shodhan (cleansing) and Ropana (healing) of Vrana seven measures^[3] are mentioned under Shastiupakarma. Among them, Taila^[4] has its own specific indications in the management of Vrana. Acharya Shushruta has indicated Priyangvadi-Taila^[5] for treatment of Vidradhi Vrana (wound created after abscess drainage) in Vidradhi-Adhyaya of Sushruta Samhita. This Taila yoga contain the drugs possessing Shodhan and Ropana properties, thus it was selected for local application on vrana along with Dashak Guggulu^[6] for oral administration.

MATERIAL AND METHODS

Selection of patients: Patients with signs and symptoms of Dushta Vrana, attending the O.P.D. and I.P.D. of Department of Shalya Tantra of Rishikul Govt. P.G. Ayurvedic College and Hospital, Haridwar (U.K.) India, were registered irrespective of their sex, religion, occupation, education etc. Total 30 patients were selected for the study.

Consent: Written consent in the language best understood by the patients was taken from all the registered patients, before their participation in the trial.

INCLUSION CRITERIA

- Patients of either sex.
- Patients of all age group.
- Patients with signs and symptoms of Dushta Vrana.
- Wounds formed after Abscess drainage.

EXCLUSION CRITERIA

- Patients with major systemic disorders e.g H.I.V.
- Malignant ulcers.
- Tubercular ulcers.
- Syphlitic ulcers.
- Leprosy.

EXAMINATION OF PATIENT

1. Systemic Examination

- Each patient was examined thoroughly for different systems like Digestive, Cardio-vascular, Respiratory, Nervous system and Genito-urinary system.
- If any system was found abnormal, the specific investigations were carried out and confirmed to treat the afflicted system first.

2. Local Examination

It was done under following headings:

a. Inspection

 Size, Shape, Number of ulcers, Position, Edge, Floor, Discharge and Surrounding skin of wound were noted.

b. Palpation

- It was done to elicit tenderness, bleeding on touch and its relation with the deeper structures.
- Edge, Margin, Base and surrounding skin of wound were carefully palpated.

Investigations: to assess the general condition of patient and to rule out any other pathological condition.

- **Blood Examination-** Hemoglobin, TLC, DLC, ESR, Blood Sugar (Fasting and Random), Liver Function test, Kidney Function Test, HIV, HbsAg.
- **Urine** Routine and Microscopy

INTERVENTION

Table 1:

| Formulation | Mode of | Preparation | Dose | Duration of |
|-------------------|----------------|-------------|------------|--------------------|
| | Administration | of Drug | Duse | Treatment |
| Priyangvadi-taila | Locally | Oil | As per the | Maximum upto 4 |

| | | | size of Wound | months |
|-----------------|--------|---------------------|------------------|-----------------------|
| Dashaka Guggulu | Orally | Tablet (500mg each) | 2 B.D | Maximum upto 4 months |

DURATION OF THE TREATMENT

 All the cases were treated till the Wound heals completely. Maximum duration of study was 4 months.

FOLLOW UP PERIOD

 Follow up was done once weekly for one month then monthly once for two months after the completion of treatment.

ASSESSMENT CRITERIA

The clinical trial was assessed for its efficacy on the basis of following subjective and objective criteria:

I. Subjective Criteria

Pain

Itching

II. Objective Criteria

Size of wound

Tenderness

Smell

Floor

Discharge

OBSERVATIONS

Maximum patients i.e. 36.67% patients were found in the age groups of 21-40 years. 73.33% were male. 90% were of Hindu religion. Majority of the patients belonged to poor socioeconomic status 43.33%. 53.33% patients were vegetarian. Maximum 60% patients were not addicted. 90% of patients were suffering from single wound, maximum 66.67% patients had Vrana at lower limb 56.67% patients were having Nija Vrana (wounds caused by vitiated dosha).

RESULTS

Dressing with Priyangvadi Taila along with oral administration of Dashak Guggulu provided statistically highly significant result in all subjective and objective parameters:

Table 2: Summarized result after completion of treatment.

| Parameters | % Relief | t- value | p- value | StatisticalResult |
|------------|----------|----------|----------|-------------------|
| PAIN | 100 | 21.89 | < 0.001 | H.S |
| ITCHING | 94.64 | 17.30 | < 0.001 | H.S |
| SMELL | 100 | 15.23 | < 0.001 | H.S |
| SIZE | 96.87 | 16.63 | < 0.001 | H.S |
| DISCHARGE | 100 | 18.61 | < 0.001 | H.S |
| FLOOR | 100 | 23.68 | < 0.001 | H.S |
| TENDERNESS | 98.63 | 26.88 | < 0.001 | H.S |

Table No. 3: Overall effect of Therapy.

| Result | No. of Patients | Percentage |
|-------------------|-----------------|------------|
| Healed | 25 | 83.33% |
| Markedly Healed | 5 | 16.67% |
| Moderately Healed | 0 | 0% |
| Mild Improvement | 0 | 0% |
| No Change | 0 | 0% |

DISCUSSION

Even though healing of wound is a natural process, it is inhibited by various factors. Without proper management a healthy wound may convert into an infected ulcer which is difficult to treat. Wounds which are difficult to treat or heals very slowly in spite of best efforts can be considered as Dushta Vrana. Presently, wounds are managed by anti-biotics, analgesics, anti-inflammatory drugs and local management is done with anti-septic solutions, but this practice is associated with few drawbacks such as drug resistance, side effects etc., even the anti-septic solutions used for the purpose of local management may impair capillary circulation thus damaging granulation tissue. Ropana (healing) is always associated with shodhana (cleansing) as a dirty and infected wound cannot heal appropriately. Priyangvadi Taila contain the drugs possessing both Shodhan and Ropana properties.

Probable Mode Of Action Of Priyangvadi Taila

Maximum contents of Priyangvadi Taila possess Kashaya and Tikta rasa, Laghu and Ruksha guna, almost all contents were of Sheeta Virya. Hence, it can be postulated that Priyangvadi Taila has overall Kashaya, Tikta rasa, Laghu, Ruksha guna and Sheeta virya. It acts as Lekhana, Chedana, Soshana, Stambhan, Shodhan, Sandhaniya, Puyaupshoshana, Krimighna,

Ropana, Prasadana Twak-Mamsa Sthireekarana. Thus, helps in Shodhan and Ropana of Vrana. Moreover, Tila taila is documented as having a special property of increasing the potency of the constituent ingredients (Yogvahi). It helps in reaching the minute channels by means of its Sukshma, Vyavayi, Vikasi gunas.

Effect of the Priyangvadi Taila in wound healing on the basis of the chemical constituents:
Glycosides accelerate the healing process and reduce the scarring as the mechanism of action proposed which here involves the regeneration of skin through stimulation of stem cells that allow healing without substantial scar formation. Glycosides are anti-infective which combat the infection and thus prevents any kind of infectious condition in the wound. Tannins are anti-oxidants and blood purifiers with anti-inflammatory actions. Tannins also reduces the secretions, discharge. Tannins and Phytosterols are anti-inflammatory thus prevented the prolongation of the initial phase and reduce the pain / tenderness, redness, swelling features of this stage, leading to progress of the wound towards healing. They also promote the healing process by wound contraction with increased capillary formation and fibroblasts proliferation followed by enhancing the rate of epithelialisation. Oleic & Linoleic Acids present in Tila Taila are Anti-inflammatory. Ascorbic Acid (Collagen Synthesis) present in Tila Taila is important for collagen connective tissue synthesis leading to wound contraction and scar mauration by cross-linking of collagen fibers. Thus, Priyangvadi Taila has shown significant cleansing as well as healing effect on Dushta Vrana.

Probable Mode Of Action Of Dashaka Guggulu

The constituents of Dashaka Guggulu i.e Guduchi, Patola, Triphala, Trikatu, Vidanga and Guggulu have Anti-inflammatory, Analgesic, Anti-bacterial/Anti-microbial, Antioxidant properties, thus helpful in both wound cleansing and healing.

CONCLUSION

The concept of chronic ulcer can be very well correlated with Dushta Vrana concept in Ayurved text. Priyangvadi Taila locally along with Dashak Gugglu as oral medicine was found to be very effective in the management of Dushta Vrana. No adverse drug reaction or side effects were reported during and after the study, so the formulation in the form of Taila as topical application and Dashak Guggulu as oral medicine is absolutely safe. Thus, the present clinical study has established that it can be used as an alternative herbal approach for management of Dushta Vrana.

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