"A CLINICAL STUDY TO EVALUATE EFFICACY OF PANCHAVALKALA KASHAYA AWAGAH SWED IN DUSHTAVRANA."

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ABSTRACT

Introduction: In advance era technology related to wound healing is developing rapidly. Especially in therapeutically way new techniques are involved in wound disoughing (vrana shodhana) and wound healing (vrana ropana). Many researches has done on therapeutic aspect of wound healing along with ayurvedic remedies. it shows that herbal medicine have enormous effect on wound healing. Panchavalkala Kashaya is one of them. Aim: To evaluate efficacy of Panchavalkala kashaya Awagah swed in dushta vrana. Objective: To evaluate efficacy of panchavalkala kashaya over wound debridement (vrana shodhana) and wound healing (vrana ropana). Materials and Methods: Panchavalkala kashay made by raw panchavalkala bharad (1 part) and water (16 part). Freshly prepared panchavalkala kashaya (4 parts) Awagaha swed was given to the 10 patient suffering from dusthavrana (Non healing wound) once a day for 1 week. Result: The clinical symptoms like pain, slough, swelling, discharge are significantly reduced by above treatment. Conclusion: Pain reduced drastically in all patients. Slough and discharge -9 out of 10 cases slough and discharge decreases significantly. Swelling in 7 out of 10 patients. It helps in disloughing action and facilitated wound healing in dushtavrana.

KEYWORDS: Panchavalkala kashaya, Non healing wound, Dustavrana, vrana shodhana, vrana ropana.

INTRODUCTION

There are many factors that effect on wound healing process, like nutrition deficiency, site of wound, certain drugs and bacterial infection. Wound infection is defined as presence of replicating micro-organism within a wound with the subsequent host response which
ultimately leads to delayed wound healing which is known as ‘Dushtavrana’.\textsuperscript{[1]} Because of above reason it is important that infection is recognised as early as possible. Symptoms of 9 local infections are pain, slough, discharge, granulation and swelling.

In the Indian context, the formal description of wound care has been vividly described in three great treaties (Bruhatrayi). Out of that Sushrut Samhita, not only describes vrana but also present their systematic classification along with their management including various systemic and local drugs, Also in Sushrut Samhita etiopathogenesis of wound has been described in very elaborative manner. Sixty different procedure for the management of wound along with herbal drugs which he has used for local application have been mentioned. His techniques are broadly classified as ‘Vranashodhana’ and ‘Vrana ropana.’

Sushruta has described various drugs for external application. One of them Nyagrodhadi varga mentioned in Vranaropan Kashaya which includes panchavalkala which is group of bark of five trees - Vata(Ficus Bengalensis), Ashwatha(Ficus religosa), Udumbara (Ficus glomerata), Plaksha(Ficus lacor Buch -Ham), Parish (Thespesia populneea soland ex corea.) is found very effective in wound healing due to its vrana shodhana and vrana ropana property.

**Aim**
To evaluate efficacy of Panchavalkala kashaya Awagah swed in dushta vrana.

**Objective**
1) To study probable mechanism of action of panchavalkala kashaya over wound debridement (vrana shodhana) and wound healing (vrana ropana).
2) To propose an alternative, cost effective, easily available herbal preparation in management of dustha vrana.

**MATERIALS AND METHOD**
The Clinical Study was carried out at OPD and IPD of Department of Shalya Tantra. The clinical parameters of diagnosis and follow up were taken.

**Detail Plan and Protocol**
Centre of Study - OPD and IPD of Department of Shalya Tantra.
Type of Study - Open Prospective Randomised Controlled Clinical study -Pilot study.
No. of Patients - 10 Patients - Diagnosed patients of ‘Dushta vrana’ in Shalya Tantra Dept.’s O.P.D. and I.P.D.

Consent– A well informed written consent of all patients included in present study was taken before starting the treatment.

**DURATION OF TREATMENT:** 7 Days

**Clinical Assessment:** Daily for week.

**Follow up:** 1, 3, 5, 7 day for observation of wound healing.

**Drug supply**

Raw materials of Ayurvedic medicines directly collected.

**Preparation of Panchavalkala kwath**

Fresh drug were collected and cleaned with normal water and then dried for 10-15 days. They were cut in to small pieces. Decoction of the small pieces (bharad) was prepared by adding 8 times of water, boiling at 100°C until the water reduced to ¼ part of its original volume. Patient was asked to soak wound site (awagah sweda) for 10 min for twice a day.

**Inclusion Criteria**

Patients with the history of Non healing wound which are moderately to heavily infected non-diabetic but infected regardless of sex or chronicity were included in the study.

1. All infected wounds (chronic, controlled diabetic wounds)
2. Patients of both sexes male & female.
3. Patients of age between 16 to 60 years.

**Exclusion criteria**

1. Immune-compromised (HIV positive) and HBsAg positive patients.
2. Uncontrolled Diabetes.
3. Complicated wound like Osteomyelitis, Gangrene etc.
4. Burn wound/malignancy/Bleeding disorders.
5. Patient in septicemia.
7. Anemic patients (HB less than 9 gm %.)
Withdrawal Criteria

1. Treatment will be withdrawn if patient develops any complications.
2. If patient has become un-cooperative.
3. If patient is not responding to the drugs and involves major systemic symptoms.

Criteria for Assessment

Subjective Criteria

• SLOUGH

<table>
<thead>
<tr>
<th>Absent</th>
<th>-0</th>
</tr>
</thead>
<tbody>
<tr>
<td>Slough covered up to 25% of wound</td>
<td>-1</td>
</tr>
<tr>
<td>Slough covered up to 25-50% of wound</td>
<td>-2</td>
</tr>
<tr>
<td>Slough covered up to 50-75% of wound</td>
<td>-3</td>
</tr>
</tbody>
</table>

• DISCHARGE

<table>
<thead>
<tr>
<th>Absent</th>
<th>-0</th>
</tr>
</thead>
<tbody>
<tr>
<td>Serous sanguineous</td>
<td>-1</td>
</tr>
<tr>
<td>Serous</td>
<td>-2</td>
</tr>
<tr>
<td>Purulent</td>
<td>-3</td>
</tr>
<tr>
<td>Purulent discharge with foul smelling</td>
<td>-4</td>
</tr>
</tbody>
</table>

• GRANULATION TISSUE

<table>
<thead>
<tr>
<th>Healthy granulation tissue</th>
<th>-0</th>
</tr>
</thead>
<tbody>
<tr>
<td>75% wound covered with granulation</td>
<td>-1</td>
</tr>
<tr>
<td>50% wound covered with granulation</td>
<td>-2</td>
</tr>
<tr>
<td>Unhealthy granulation with slough</td>
<td>-3</td>
</tr>
<tr>
<td>Granulation Absent</td>
<td>-4</td>
</tr>
</tbody>
</table>

• SWELLING

<table>
<thead>
<tr>
<th>No Swelling</th>
<th>-0</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mild Swelling&lt;2cm</td>
<td>-1</td>
</tr>
<tr>
<td>Moderate Swelling 2-5cm</td>
<td>-2</td>
</tr>
<tr>
<td>Severe Swelling&gt;5 cm</td>
<td>-3</td>
</tr>
<tr>
<td>Inflamed margin</td>
<td>-4</td>
</tr>
<tr>
<td>Grade</td>
<td>Slough</td>
</tr>
<tr>
<td>-------</td>
<td>--------</td>
</tr>
<tr>
<td>0</td>
<td>Absent</td>
</tr>
<tr>
<td>1</td>
<td>Slough covered up to 25% of wound</td>
</tr>
<tr>
<td>2</td>
<td>Slough covered up to 25 -50% of wound</td>
</tr>
<tr>
<td>3</td>
<td>Slough covered up to 50 -75% of wound</td>
</tr>
<tr>
<td>4</td>
<td>Slough covered all over wound</td>
</tr>
</tbody>
</table>

**DISCUSSION**

Non-Healing Wound is a common problem that causes substantial morbidity in persons who are otherwise healthy. It is one in which patient experiences swelling, discharge, Slough and sometime pain. In Ayurvedic classics the disease Non-Healing Wound is compared with Dushta Vrana which has similar clinical features with Non-healing Wound. Panchavalkala Kashaya found good solution for vranaropana and vranashodhana. Effect of panchvalkala Kashaya dhawana are.

**Pain:-** Kashaya rasa is vatakara in nature but panchvalkala kwath dhawan reduces pain. this is might be action of Guna. Having Guru guna is supposed to be vatahara in nature.

**Discharge:-** Kashaya rasa of drava having property like stambhaka help in reducing discharge. stambhaka guna may be due to sheet virya of drugs.

**Desloughing action:-** Atitwak prasadka property of dravya helps in reducing bacterial load and ultimately leads to healthy granulation which helps in healing wound rapidly. kashaya kalpana told as one of shashtiupkrama.[2]

**OBSERVATIONS AND RESULT**

**Demographic Analysis**

**Table showing classification of patients according to age**

Among the 10 patients selected for the study
2 patients i.e. 20% belong to age group 20-29
1 patients i.e. 10% belong to age group 30-39
3 patients i.e. 30% belong age group 40-49
4 patients i.e. 40% belong to age group 50

CONCLUSION
Assessment of effect of Therapy
Cured (C) - 76 to 100% relief in signs & symptoms.
Markedly improved (MI) - 51 to 75% relief in signs & symptoms.
Improved (I) - 26 to 50% relief in signs & symptoms.
Unchanged (U) - 0 to 25% relief in signs & symptoms.

REFERENCES
6. To study Nirgundi siddhataila in dushthavrana-Vd. Prashant Rasale (may 2008).