EFFECT OF LEECH THERAPY IN THE MANAGEMENT OF DUSHTA VRANA (NON HEALING VARICOSE ULCER) - A CASE STUDY

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ABSTRACT

Background: Chronic venous insufficiency complications have now more incident rates. Chronic ulceration of lower legs is relatively common condition among adults. It affects 1% of the adult population and 3.6% of people older than 60 years of age. When a venous valve gets damaged, it prevents the backflow of blood, which causes pressure within veins which leads to hypertension exceed to venous ulcers. These are mostly along the medial distal leg, which often very painful and can bleed to become varicose ulcer. In Ayurveda, this condition is considered as Dushta Vrana, it can be managed with specific Shodhan therapy called as Raktamoshan (leech therapy). Aim: The present endeavor was to provide an effective way of management of Dushta Vrana by leech therapy. Materials and Methods: Leech was used in present study considering all three parameters i.e. Poorva, Pradhan, Paschat karma before applying leech, and scheduled leech therapy performed. Results: In a total 6 sittings of Leech therapy it is found that leech therapy in Dushta Vrana is highly effective and has less complications. Conclusion: To treat the conditions like non healing varicose ulcer, it is always preferable to follow the concept of Ayurveda treatment.

KEYWORDS: Dushta Vrana, non-healing Varicose Ulcers, Raktamokshan.

INTRODUCTION

Varicose ulcers are wounds that are thought to occur due to improper functioning of valves in the veins, causing venous stasis usually in the legs. Varicose ulcers appear when these enlarged veins become congested with fluid buildup and infection occurs. It is the major
cause of chronic wounds, occurring in 70% to 90% of chronic wound cases. They are also known as stasis ulcer or venous ulcer.

The etiological factors include increased intravenous pressure, secondary to deep vein thrombosis, chronic constipation, long standing occupation etc. the pathogenesis starts with presently increased intravenous pressure which damages the venous walls and results in stretching. Loss of elasticity, hyper lipodermato-sclerosis and finally ulcer formation. Confirmation of diagnosis is done by duplex Doppler ultrasound scanning of the lower limb venous system.

In Ayurvedic prospective, we can correlate varicose ulcers with ‘Siragat Vat Janya Vrana’. Sushruta has described wound management in a most scientific way and given the utmost importance to bloodletting therapy and considered Leech as the most unique and effective method of bloodletting even in infected wounds and abscesses.

AIMS AND OBJECTIVES
The main aim of study is to evaluate efficacy of leech therapy (Jalaoukavacharan) in the management of Dushta Vrana (non-healing venous ulcer).

CASE REPORT
Patient Name: XYZ
Age/Sex: 55/male
Address: Dastur Nagar Amravati
Date of Visit: 08/01/2018
Date of Recovery: 21/02/2018
Occupation: Labor

CASE HISTORY
A male patient of 55 years old presented to shalyatantra OPD with non-healing chronic wound just above the right lateral malleolus since 2 years. He consulted nearby allopathic physician and was given medication for the same. Dressing of the ulcer was not done regularly and internal medication was not taken regularly. The ulcer started increasing in size associated with pain, burning sensation, local swelling and eczematous changes within duration of 3 months since onset. The patient was thoroughly examined locally as well as systematically. The local findings revealed a wound of 4×5 cm in size. Oval shape with
sloping edge, floor was covered with slough and surrounding skin was eczematous, edematous with blackish discoloration and it was situated as mentioned lateral malleolus of right leg.

- Patient has history of Varicosity of right lower limb since 4 years.
- He was a Labor and nature of work demands standing for long time.

MATERIALS AND METHODS

Material
- Two small plastic jars, kidney tray, one big glass bowl and turmeric powder.
- Sterile gauge, swab, gloves and normal saline with dressing material.

Method: (Application of leech)
- First purified and made them active by putting them in the water mixed with turmeric powder for 10 minutes.
- After that leeches were kept in plain water for 5 minutes.
- Then the patients made to lie in a left lateral position and wound is cleaned with normal saline water and draped with hole-sheet.
- Then the leech is applied over the wound and starts sucking.
- Then a wet gauge was placed to cover leech’s body and continuous pouring of water done.
- As the leech start sucking blood, it remained safely in that place only and then detached itself (30-45 minutes)
- The site was cleaned with freshly prepared Triphala Kwath and bandage was given after applying turmeric powder over bleeding site.
- After that leech was made to vomit the sucked blood in a turmeric powder and kept in separate jar.
- Patient was undergone six sittings of leech therapy i.e. Jaloukavacharan (once a week) on OPD basis. Leech therapy was done in a standard protocol as described by Acharya Sushruta.
- Leech therapy continued until complete healing achieved and the result were assessed at regular interval along with regular local dressing.
- Along with leech therapy internal medicine was advised.
- Triphala Guggula 2bd × 30 days
- Gandhak Rasayana 2bd × 30 days
• **Manjishtadi Kashaya** 30ml twice for 30 days.

**OBSERVATIONS AND RESULTS**

The observations and results are tabulated below table 1 & 2. There was a deep seated slough at the base of the wound. But at the end of first week itself it was noted that the slough started to dissolve from the base and wound became clean and healthy in 1st week with reduction in pain.

After 15 days pain, tenderness and swelling were minimum. By the end of 30 days pain, tenderness and swelling were completely absent. There was marked reduction in the size of ulcer at the end of 28 days, after 45 days ulcer completely healed with complete relief from all the signs and symptoms.

**Table: 1**

<table>
<thead>
<tr>
<th>Day</th>
<th>Pain</th>
<th>Swelling</th>
<th>Tenderness</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sitting 1st (day 1st)</td>
<td>++</td>
<td>+++</td>
<td>+++</td>
</tr>
<tr>
<td>Sitting 2nd (day 8th)</td>
<td>++</td>
<td>+++</td>
<td>+++</td>
</tr>
<tr>
<td>Sitting 3rd (day 15th)</td>
<td>+</td>
<td>+++</td>
<td>++</td>
</tr>
<tr>
<td>Sitting 4th (day 22nd)</td>
<td>+</td>
<td>++</td>
<td>+</td>
</tr>
<tr>
<td>Sitting 5th (day 29th)</td>
<td>Nil</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>Sitting 6th (day 36th)</td>
<td>Nil</td>
<td>Nil</td>
<td>Nil</td>
</tr>
<tr>
<td>45th day</td>
<td>Nil</td>
<td>Nil</td>
<td>Nil</td>
</tr>
</tbody>
</table>

**Table: 2**

<table>
<thead>
<tr>
<th>Day</th>
<th>Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st</td>
<td>4×6 cm</td>
</tr>
<tr>
<td>8th</td>
<td>3.8×5.8 cm</td>
</tr>
<tr>
<td>15th</td>
<td>3.2 × 5.1 cm</td>
</tr>
<tr>
<td>22nd</td>
<td>2.4 × 3.8 cm</td>
</tr>
<tr>
<td>29th</td>
<td>1.2 × 2.2 cm</td>
</tr>
<tr>
<td>36th</td>
<td>0.6 × 1.2 cm</td>
</tr>
<tr>
<td>45th</td>
<td>Healed</td>
</tr>
</tbody>
</table>

**RESULTS**

In a total 6 sittings of Leech therapy with internal medicine like **Triphala Guggula, Gandhaka Rasayana And Manjishtadi Kashaya**. It is found that leech therapy in **Dushta Vrana** is highly effective and has less complication.

**DISCUSSION**

Leech sucks the blood from the site of application and reduces the local pressure resulting in reduction in pain and swelling. Leeches not only sucks the blood but also leave behind their
saliva which contains enzymes that help to cure disease. Secretion from leech’s salivary gland contains anaesthetic, anticoagulant, anti-inflammatory, thrombolytic, vasodilator, bacteriostatic and analgesic substances. Eglins and Bdeglins present in the saliva of leech act as anti-inflammatory agent therefore reducing inflammation maintain normal circulation and recover discoloration. Anesthetic agent present in saliva of leech reduce pain and tenderness and gives symptomatic relief. Hirudin and Calin are anti-coagulant agents that effectively inhibit coagulation; Destabilase has thrombolytic effect. Intake of Triphala Guggula, Gandhaka Rasayana And Manjishthadi Kashaya drugs are having Dosha Pachana, Ropana, Shothahara, Krumighna, Vedanashaman, Rasayana properties.

CONCLUSION
The patient had been suffering from 2 years, consulted many physicians and outcome was a failure. But he was treated with the unique intervention in Ayurveda. He got relief.

This case report shows leech therapy is highly effective in the management of chronic non healing Varicose Ulcers (Dushta Vrana). as it is cost effective and has less complication.

REFERENCES