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Case Study

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# EFFECT OF JALAUKAVACHARAN IN CHRONIC WOUND HEALING

Dr. Amol Ashok Bhuite\*<sup>1</sup>, Dr. Aparna Abhay Raut<sup>2</sup>, Dr. Ramesh Vanaji Ahire<sup>3</sup>, Dr. Shubhangi Shashikant Wankhedkar<sup>4</sup> and Dr. Deepali Ajitrao Kolnure<sup>5</sup>

<sup>1</sup>PG Scholar, Shalyatantra Samanya Department, Shree Sapthshrungi Ayurved Mahavidyalaya and Hospital, Nashik, Dist-Nashik, Maharashtra.

<sup>2</sup>Guide, H.O.D. and Professor of Shalyatantra Samanya Department, Shree Sapthshrungi Ayurved Mahavidyalaya and Hospital, Nashik, Dist-Nashik, Maharashtra.

<sup>3</sup>Professor of Shalyatantra Samanya Department, Shree Sapthshrungi Ayurved Mahavidyalaya and Hospital, Nashik, Dist-Nashik, Maharashtra.

<sup>4</sup>Associate Professor of Shalyatantra Samanya Department, Shree Sapthshrungi Ayurved Mahavidyalaya and Hospital, Nashik, Dist- Nashik, Maharashtra.

<sup>5</sup>Assistant Professor of Shalyatantra Samanya Department, Shree Sapthshrungi Ayurved Mahavidyalaya and Hospital, Nashik, Dist-Nashik, Maharashtra.

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\*Corresponding Author Dr. Amol Ashok Bhuite PG Scholar, Shalyatantra Samanya Department, Shree Sapthshrungi Ayurved Mahavidyalaya and Hospital, Nashik, Dist-Nashik, Maharashtra.

#### ABSTRACT

Dushtavran, encompassing chronic wounds in Ayurvedic terminology, represents a significant challenge in healthcare, necessitating effective management strategies. Traditional Ayurvedic texts extensively describe various drugs and techniques for the shodhana (purification) and ropana (healing) of wounds. This review explores the efficacy of of one prominent Ayurvedic panchkarma, raktamokshan (jalaukavcharan), in the comprehensive management of chronic wound. Material & Method: On inspection wound was observed at thoroughly and case was diagnosed as Dusht vrana and it was planned to be treated with application of jalauka followed by dressing daily. Daily dressing in same manner was done upto the healing of Vrana. The wound was assessed daily for pain, swelling, discharge, size, and shape.

**KEYWORDS:** Dushtavrana, Chronic Wound Healing, Raktmokshan,

Jalaukavcharan, Ayurveda, Shodhana, Ropana.

#### INTRODUCTION

A chronic wound may be defined as one that is physiologically impaired due to a disruption of the wound healing cycle as a result of impaired angiogenesis, innervation, or cellular migration.

The chronic, non-healing wound is prone to infection, and causes pain, diminished quality of life.

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'.

Various topical applications of Ayurveda medicated kwath, oil and procedures like jalaukavacharan are available for accelerate wound healing.

Different wounds require dressings for different reasons. Some wounds need protection from exogenous infection while others need a conducive environment for healing till the skin regenerates. Accelerated re-epithelialization, minimizing pain and preventing infection are main goals of dressing care. Conventional paraffin gauze dressings are inexpensive but do not contain any active agent that can promote wound healing. Thus, the quest for finding newer and better alternatives is a continuous endeavour in medical research.

### **AIM**

To study role of Jalaukavacharan in chronic wound.

#### **OBJECTIVES**

To study probable mechanism of action of Jalaukavacharan over wound debridement (vrana shodhana) and wound healing (vrana ropana).

## **Hypothesis**

Jalaukavcharan is effective in chronic delayed wound healing.

### **Null Hypothesis**

Jalaukavcharan is Not effective in chronic delayed wound healing.

#### MATERIALS AND METHODS

### **CASE REPORT**

A 47-year-old female patient underwent incision and drainage (Hilton method) for a pyogenic abscess and attempted various allopathic treatments for 30 days before presenting at SSAM & Hospital, NASHIK. Upon local examination, the wound was found to be superficial to the underlying muscle, measuring 9.56 sq. cm, with no signs of infection, active pus collection, or discoloration. There was no significant systemic or family history, and all routine blood investigations, including X-ray, were conducted.

	Route	Duration
Jalaukavcharan	Topical	Every Alternate day For Next 14 Days

After the assessment of wound, one leeches were applied over the wound. when leeches left the site by their own wound was cleaned. This is followed by dressing done with bandaging was wrapped around wound. Dressing was done every day, whereas leech therapy was repeated every alternate day for next 14 days.



#### **Assessment tool**

In this case study we have used Bates Jensen wound assessment tool (4) for wound evaluation, on the basis of 13 criteria. Score of each category was taken and used for analysis.

Wound Assessment criteria: Bates-Jensen wound assessment tool

Sr no	Wound character	0th day	7th day	14th day	28th day
1	Size	2	2	2	1
2	Depth	3	3	2	1
3	Edge	4	4	2	1
4	Undermining	1	1	1	1
5	necrotic tissue type	1	1	1	1
6	necrotic tissue amount	1	1	1	1
7	Exudate type	1	1	1	1
8	Exudate amount	1	1	1	1
9	Skin colour surrounding wound	5	5	5	5
10	Peripheral tissue oedema	1	1	1	1
11	Peripheral tissue induration	1	1	1	1
12	Granulation tissue	4	2	2	1
13	Epithelisation	3	3	2	1
14	Total score	28	26	22	17



# **DISSCUTION**

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. Leech (Hirudo medicinalis) saliva & their role.

Hirudin- Inhibits blood coagulation by binding through thrombin & bacteriacidal also Calin- Inhibits collagen mediated Platelet aggregation.

**Hirustasin** – Inhibits trypsin & chymotrypsin, Hyaluronidase – that enhances the viscosity of the interstitial fluid for vasodilating effect.

Acetylcholine – Vasodilator., Histamine like substance- Vasodilator, increases the inflow of blood at the bite site.

Anesthetics substances- Anesthetic action.

### **CONCLUSION**

Jalaukavacharan was found to be effective in faster wound epithelialization, and reducing wound exudates.

There was no evidence of any allergic reaction as well as no evidence showing any adverse event on the wound.

Hence this can be safely used in chronic non healing wound.

Sixty different procedure for the management of wound along with raktmokshan is one of them which has been used for local application mentioned in Sushrut Samhita.

# Role of Jalaukavacharan in wound management

Rakta mokshana reduces the pain and suppress the inflammatory process. Wound with inflammation, hardness, slough, reddish black in colour, tenderness and uneven surface are treated by rakta mokshana.