



Research Article

Clinical efficacy of leech therapy in non-healing Bed sore: a case study

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ABSTRACT:

Introduction - A Bedsore refers to damage to the skin, muscle, and subcutaneous tissue caused by pressure, shear, or friction. It often occurs in the bony protuberance. As a common complication of long-term bedridden patients such as those with coma & paraplegia

Method - We herein present female patient of 60 years approached with the complaints of bedsore at Rt. gluteal region since 3 months, with complaint of right body paralysis since 7 months, loss of speech, and movements were restricted. Who was K/C/O Diabetes mellitus from 10 years and with ongoing medication.

Result - We have treated a case of bedsore with leech therapy where leech was applied upon the bedsore with the duration 7 days, Patient was undergone Six sittings of Jalaukavacharana. Jalaukavacharana was done in a standard protocol as described by Acharya Sushruta. A substantial reduction in the size of ulcer was reported following the therapy.

Discussion - The results in terms of change in the healing of bedsore were evaluated with the help of photographs following every treatment session to mark the level of granulation of tissues and healing of the ulcer. The aim of this study to evaluate the effectiveness of *Jalaukavcharan* to promote the healing processes in non-healing ulcer. The study was an observational single case design.

KEY WORDS: *Dushta vrana* (bed sore), *Jalaukavcharan* (leech therapy)

INTRODUCTION:

Prolonged non healing wounds are which does not improve within three months or stay in the inflammatory state for long time and may never heal or may take years.[1]

पुतिपूयातिदुष्टास्रकस्रावोत्संगी चिरस्थिति;

दुष्टोत्रणोऽतिगंधादद शुद्धल गं व्रवपयययः॥ (Ma. Ni.42 /7)

Hirudotherapy is medicinal leech therapy, which is one of the conventional methods to treat various kind of diseases. Hirudo medicinalis species is used among all the species of leeches [2]

The pressure ulcer is a condition caused by

pressure or sheer stress applied to the body surface for the certain period of time, resulting in cutaneous necrosis due to blood flow insufficiency [3]. In order to prevent pressure ulcers (*dushta vrana*). The treatment options are water bed and others.

The procedure of jalukawacharan has been described by Sushruta which is used even in present time[4] . Raktamokshana is the main panchakarma procedure advised in raktaja vikara to throw out the impure blood. Jalaukavacharana (leech therapy) is best due to its high efficacy, safety and considered most unique and effective method of raktamokshan.

Case presentation

A female patient of 60 years approached with the complaints of bedsore at Rt gluteus region, for 3 months, with complaint of right body paralysis since 7 months, loss of speech, and movements were restricted. Patient was known case of Diabetes mellitus from 10 years and with ongoing medication.



On physical examination Patient found immobile and was not able to perform her daily activities, vitals were stable. The patient was catheterized due loss of bladder hold.

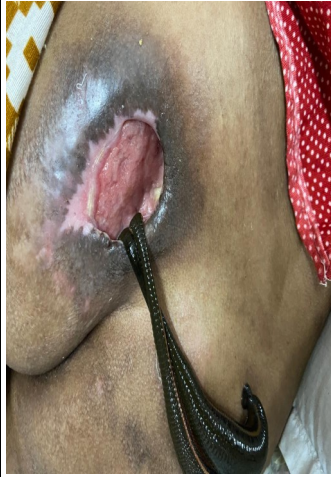



On examination, the ulcer was present above the right buttock beside the lane of spine at Gluteal region, was approximately 15cm×5cm×4cm in size and was oval in shape having regular margins. The floor was covered with offensive slough, unhealthy tissue and the base was slightly indurated. The surrounding area around the wound was indurated. Slight blackish discoloration with purulent discharge was present. The ulcer was painful.

Patient treated jalukawacharan and along with oral medications having vranashodhan, vranaropan, raktashodak, raktaprasdak properties, Mahamanjishtadi kwatha 40 ml BD empty stomach, Arogyavardhini vati 2 BD and Triphala guggula 2 BD was given. After regular jalukawacharan and with oral medication discharge was significantly reduced and wound healed significantly. Patient was undergone Six sittings of Jalaukavacharana on gluteal region. A photograph was taken every time after the completion of one treatment session.

The consecutive photographs taken after the treatment session were compared with the previous treatment session and the status were able to demonstrate as the reductions in the size of bedsore and granulation started within. This marked a substantial improvement of the wound (bedsore) following leech therapy comparing to the before treatment session.

Table No. 1: Follow-up and observations

Sr. No.	Photo	Edge	Size	Discharge	Bleeding	Description
Fig.1 29 August 2022		Undermined	More than 10 cm	Profuse and continuous	No bleeding	Deep with granulation tissues were absent. Continuous pain, burning and itching were present.
Fig.2 4 Sept. 2022		Undermined	More than 10 cm	Profuse and non-continuous	No bleeding	Deep with granulation tissues were absent. Continuous pain, burning and itching were present.

Sr. No.	Photo	Edge	Size	Discharge	Bleeding	Description
Fig.3 15 Sept. 2022		Sloping edge	Decreased upto 8 cm	Less discharge	No bleeding	Granulation tissues present. More localized and often burning sensation
Fig.4 22 Sept. 2022		Sloping edge	Decreased upto 8 cm	Less discharge	No bleeding	25-50% wound surface covered with granulation tissue Little Localized and sometime felling of burning sensation
Fig.5 1 Oct. 2022		Sloping edge	Decreased up to 6 cm	No discharge	No bleeding	More than 50% wound surface covered with granulation tissue Upto 25% wound surface covered with slough tissue
Fig.6 8 Oct. 2022		Sloping edge	Decreased up to 6 cm	No discharge	No bleeding	More than 50% wound surface covered with granulation tissue No discharge No slough tissue

DISCUSSION:

With the help of Jalukavcharan, expulsion of toxic blood takes place and local vitiated doshas are removed. This provides fresh blood & boost wound healing by formation of newer tissues. Jalukavcharan has peripheral vasodilation effects, which improves blood circulation and corrects ischemia, thus encourage wound healing.

The leech saliva contains unique properties, including anticoagulants such as hirudin, calin, kallikrein and hyaluronidase inhibitors, histamine-like vasodilators, collagenase, and poorly described anesthetic and analgesic compounds. These properties of leech's saliva help in to reducing size of ulcer and promote healing. In this study initially, the bed sore was with irregular margins, floor was unhealthy. filled with exudes (Figure-1). After, Jalukavcharan the wound bed had reduced ulcer size, the edges were uneven, and the floor was unhealthy, little granulation tissue visible at the wound margins. (Figure-2). The ulcer demonstrated an apparent healing process by fourth month, culminating in a smaller ulcer with regular edges and a smooth and granulated floor. Finally, a non-healing bed sore was properly healed by the end of two months. The sloping edge appeared as the ulcer started healing progressively (Figure-3). The bed sore in (Figure-4) had sloping edge, which was decreased up to 8cm. There was no discharge and pressure ulcer healed up to 55%. In (Figure-5) the size of ulcer was reduced till 6 cm and the ulcer healed upto 60%. In (Figure-6) the healing of ulcer was up to 70% and observed the space was filled with new tissues. Ayurvedic Classics described Treatment protocol for Dushta Vrana indicate that it should be treated by Raktamokshana (Bloodletting). This Case shows Jalaukavacharana is highly effective in the treatment of bed sore (non-healing ulcers).

CONCLUSION:

1. Jalukawachar is effective and simple method for non-healing wounds.
2. Jalukawacharan is noninvasive procedure which ensures quicker recovery of wound.
3. Economically effective for patients as well.

REFERENCES:

- [1] Arsheed I, Afroza J, MA Wajid, Sheikh T: Management of chronic non healing Wounds by Hirudotherapy. WJPS, 2017, Vol. 6
- [2] Ali K Sig, Mustafa Guney, Aylin Uskudar Guclu, Erkan Ozmen : Medicinal leech therapy-an overall perspective. 2017, Integrative Medicine Therapy, pp. 337-34
- [3] Shastri A. Shusruta Samhita Sutrasthana 21/40 ed 2007, Chaukhamba Publication, Varanasi. p.p.94
- [4] Sharma Kumar R Et Al: Management Of Dushta Vrana By Jatyadi Ghrita Followed By Jalaukavacharna. IAMJ: MARCH, 2017. 7832.

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