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Efficacy Of Local Application Of Twaksanjanan Ghruta In Dushtavrana W.S.R. To Chronic Venous Ulcer. A Single Case Study.

[1]Vd.Santosh Pathak, [2]Vd.Pankaj Dixit, [3]Vd.Vinay Sonambekar,[4]Vd.Rahul Vichave,[5]Vd.Kartikeyan Pawar

[1] (Assistant Professor Shalyatantra Department, A.S.S. Ayurved Mahavidyalaya, Nashik), [2](Associate Professor, Shalyatantra Department, A.S.S. Ayurved Mahavidyalaya, Nashik .), [3] (HOD, Shalyatantra Department . A.S.S Ayurved Mahavidyalaya , Nashik),[4] (2nd Year PG Student, Shalyatantra Department, A.S.S. Ayurved Mahavidyalaya, Nashik .) [5] (2nd Year PG Student, Shalyatantra Department, A.S.S. Ayurved Mahavidyalaya, Nashik .)

Abstract: *Vrana* (ulcer), in Ayurveda is defined as a structural deformity in the skin and deeper structures (gaatra avachurnana), associated with ruja (pain), srava (discharge) etc and caused either by the vitiation of the *doshas* (humuors of the body) or by trauma. *Vrana* is basically of 2 types- *Dushta vrana* and *Shudha vrana*. *Shudha Vrana* (acute ulcer) is easily treatable, whereas *Dushta vrana* is a chronic ulcer, mostly require long-term treatment. Acharya Sushruta has described Shashti Upakram for treating such vranas (ulcers).

Chronic venous ulcers (CVUs) are persistent, often painful wounds that result from poor circulation in the lower extremities. These ulcers are notoriously difficult to heal, leading to a prolonged suffering experience for affected individuals .Chronic venous ulcers (CVUs) are a common and persistent clinical challenge, often requiring long-term management and wound care. In Charaka Samhita, Acharya Charaka has described Twaksanjanan churna for the wounds.With reference to that Twaksanjanan Ghruta aids in the development of new skin tissues (Twakasanjanan) and promotes wound healing (Ropan). We have applied Twaksanjanan Ghruta in a patient suffering from Chronic venous ulcer i.e Dushtavrana and we got good results in reducing Vranastrava,Vranagandha and Twakasanjanan i.e. Ropana effect .Treating chronic venous ulcers with Twakasanjanan ghruta can be very effective which stimulate cellular regeneration, improve blood circulation, and faster skin recovery.

Index Terms **-** Chronic venous ulcer**,** Dushta vrana ,Twaksanjanan ghruta.

I. INTRODUCTION

Dushta vrana, according to Acharya Sushruta, is a chronic ulcer, manifested in any part of the body, caused either by the *doshas* or trauma. When caused due to the *doshas*, it is called *Nija vrana* and when caused because of trauma; it is called Agantuja vrana. The *nija vrana* exhibits signs & symptoms in accordance with the Dosa affected .

Chronic venous ulcers (CVUs) is the most severe presentation of chronic venous insufficiency. They have considerable impacts on patients; increased pain, impaired sleep, and reduced mobility are common, while socializing is avoided to reduce the risk of injury, and work capacity is impaired. Ayurvedic medicine, with

its holistic approach to healing, has gained increasing attention in recent years for its potential to address various chronic conditions, including chronic wounds like CVUs. One such kalpa described by Acharya charak i.e. *Twakasanjanan Churna* , is known for its reputed wound-healing, anti-inflammatory, and antimicrobial properties. Traditionally used in the management of skin disorders and ulcers, *Twakasanjanan Ghruta* has been suggested as an effective remedy for enhancing tissue regeneration and promoting the healing of chronic skin lesions.

3. Aim and objective :

- The evaluated clinical efficacy of Local application *Twaksanjanan Ghruta* in the patient with chronic venous ulcer.
- To evaluate the efficacy of Twakasanjanan Ghruta in skin regeneration (Twakasanjanan) and wound healing (Ropana).
- To evaluate the efficacy of Twakasanjanan Ghruta in reducing Vrana strava,Vranagandha and Vedana.

4. Case Report

Brief history:

A 35-year-old, non-diabetic, non-hypertensive male patient complained of a non-healing wound on his left leg for 7 months. He had consulted three surgeons in the past who treated him with various medicines. The details of the medicines prescribed are not known. He experienced severe pain in his leg, to the extent of disturbing his sleep. There was a severe watery discharge from the wound, making it difficult for him to walk. This was the first occurrence of such an ulcer on the leg, and the patient did not have any family history of the same.

Single Case study Name –Harshad

Age- 35 Gender –Male

Occupation-Salesman

Diet - Non veg,Vegetarian.

Type of study- observation single case study without control group

Chief complaint:- Pain and redness in left lower limb. Swelling and discoloration and serous discharge from 3 month

General examination

Hb -11%

WBC -7800

Blood sugar-95.74 mg %

ESR-24

CT- 4 min 17 sec BT-2 min 3sec

HIV-negative

HBsAG – negative

Coagulation profile-normal

X-ray left leg –normal arterial & venous colour Doppler –multiple incompetent perforators seen in the lower limb competent SF &FP valves

Local examination Site of ulcer –

Medial aspect of left lower limb Size of ulcer - 6 cm x 3.3 cm x 0.7 cm

With hypergranulation and no epithelialization

Discharge - mild serous discharge

Smell – No foul smell

व्रणपरीक्षा

Sr.No	व्रणपरीक्षा	वर्णन
1.	व्रणाकृती	आय त
2.	व्रण अधिष्ठान	त्वक
3.	व्रणस्त्राव	परुष्य
4.	व्रणगंध	कटु
5.	व्रण वर्ण	रक्तवर्ण
6.	व्रण वेदना	तोदन भेदन

5. MATERIALS AND METHODS:

1.Twakasanjanan Ghruta

2.Gauze Pieces

3.Roller Bandage

4.Normal Saline

5.Sterile Gloves

6. Clinical findings

The patient was examined thoroughly. Bowel, appetite and micturition were normal. He had disturbed sleep due to pain. His review of systems and vital signs were within normal limits.An oval-shaped ulcer was present on the lower Medial aspect of the left leg just above the medial malleolus.

7. Diagnostic assessment

The diagnosis was made based on the clinical findings. An oval shaped ulcer which was approximately 6 cm x 3.3 cm x 0.7 cm in size was present on the lower medial aspect of the left leg, just above the lateral malleolus. It had sloping edges and the floor was covered with thick red granulation tissue. There was serous discharge from it and the surrounding area was eczematous and pigmented. A few varicose veins were present in the area below the ulcer. Varicosity on the left calf region tested positive for

Trendelenburg test and negative for Mose's sign. A palpable pedal pulsation confirmed it to be a varicose ulcer and differentiated it from a deep vein thrombotic ulcer. Doppler study confirmed the absence of DVT shows the photograph of the ulcer before the treatment.

8. Therapeutic intervention

SR .NO	DRUGS	QUANTITY
1.	**A**rjuna (Terminalia arjuna)	50 gm
2.	**U**dumber (Ficus racemosa inn)	50gm
3.	**P**laksha (Ficus religiosa)	50gm
4.	**L**odhra (Symlocos racemosa)	50gm
5.	**J**ambu (Syzygium cumini)	50gm
6.	**Y**ashtimadhu (Glycyrrhiza glabra)	50gm

कक भोदुम्बराश्वत्थलोध्रजाम्बवकट्फल ैः |
त्वचमाश्वेव गृह्णन्ति त्वक्चूर्णैश्चूर्णिता व्रणैः ||११३||

Each of the above drugs taken in powder (bharad) form as per requirement and kwath is prepared and from that Ghruta kalpana is prepared.


Mechanisms of Action:

Anti-inflammatory properties: Twaksanjanan Ghruta has potent anti-inflammatory effects due to ingredients like PALASH and LODHRA. These herbs help reduce the inflammation and erythema typically seen in chronic venous ulcers, promoting tissue repair.

Antimicrobial effects: Chronic venous ulcers are prone to bacterial infections, leading to delayed healing and complications. The antimicrobial properties of the herbal constituents in Twaksanjanan Ghruta help in preventing infection, thus providing a barrier against pathogens.

Promoting tissue regeneration: The Ghruta -based formulation is known for its ability to nourish the skin and tissues, supporting cellular regeneration and collagen synthesis. This is critical in wound healing, as the body requires collagen to close the ulcer and form new tissue.

Vasodilation and blood flow improvement: Some herbs in the formulation, such as ARJUNA , may help improve blood circulation and reduce venous stasis. This is particularly useful in cases of chronic venous ulcers, where poor circulation often hampers healing.

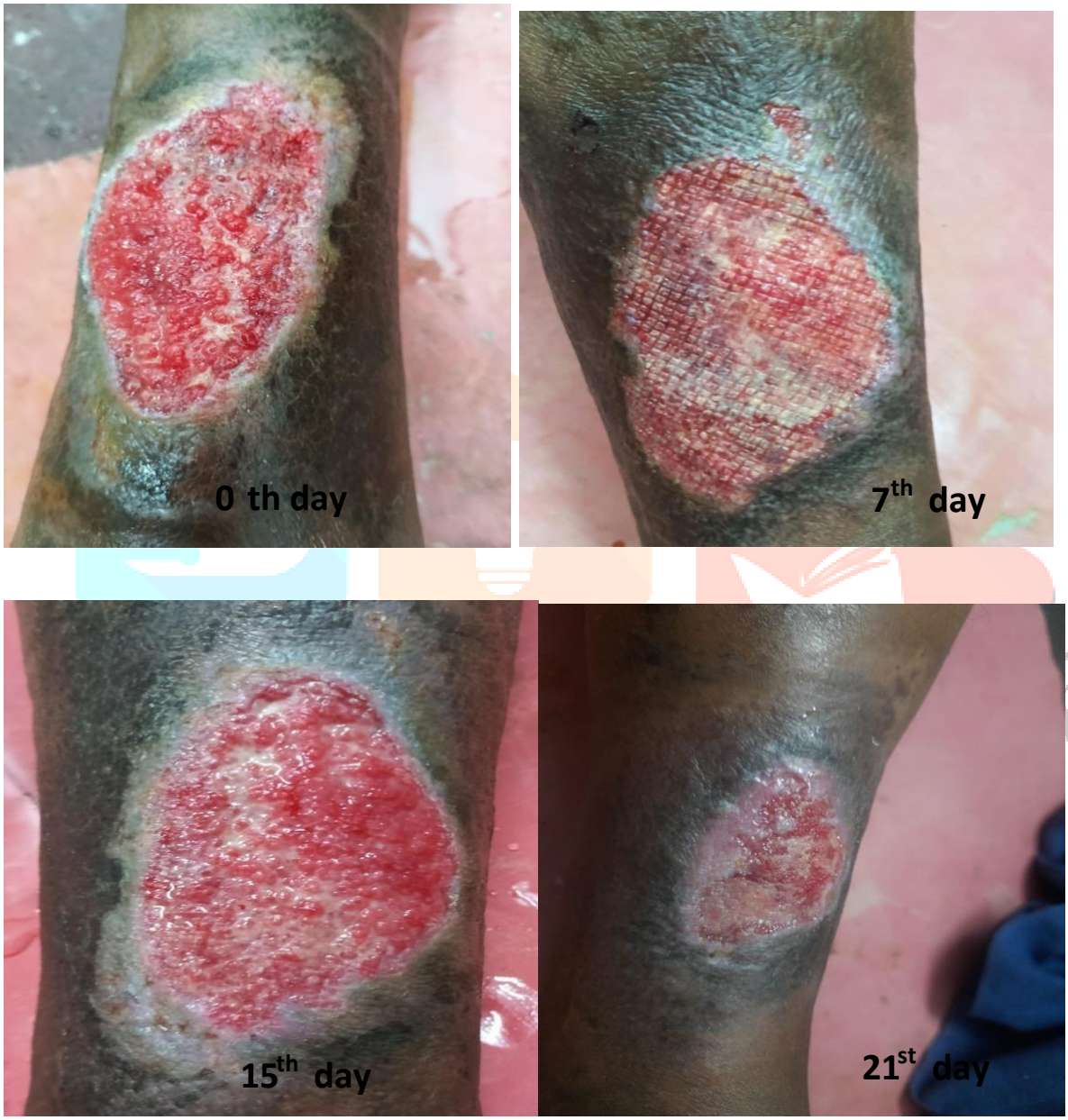
9. CRITERIA OF ASSESMENT:

Wound assesment done with the help of **BATES-JENSEN** assesment scale.

SR.NO	OBJECTIVE PARAMETERS	FOLLOW UP (DAY 0)	DAY 3	DAY 7	DAY 11	DAY 15	DAY 21
1.	SIZE	6 x3.3x 0.7	5.2x3 x0.5	4.5x2.8 x0.3	4.2x2.5 x0.1	3.8x1.7 x0	2.5x 0.8 x0
2.	DEPTH	3	3	2	1	1	1
3.	EDGES	2	2	2	1	1	1
4.	UNDERMINING	1	1	1	1	1	1
5.	NECROTIC TISSUE TYPE	1	1	1	1	1	1
6.	NECROTIC TISSUE AMOUNT	1	1	1	1	1	1
7.	EXUDATE TYPE	3	2	2	1	1	1
8.	EXUDATE AMOUNT	3	3	2	2	1	1
9.	PERIPHERAL TISSUE OEDEMA	1	1	1	1	1	1
10.	GRANULATION TISSUE	3	2	2	1	1	1
11	EPITHELIALIZATION	5	4	3	2	1	1

10. Follow up and outcomes

After the initial 15 days of treatment, the ulcer started to heal. The pain & discharge got reduced and the patient got the confidence to continue the treatment. Gradually, the ulcer showed more signs of healing and at the end of 60 days; it had healed completely show the photographs of the ulcer on the 0th ,7th,15th and 21th days of treatment. A follow up after 3 months confirmed the non-recurrence of the ulcer.



Diet and regimen: Diet and regimen play a very important role to abet the effect of treatments. Here, the patient was advised to follow a diet and regimen which would help to balance *Pitta, Rakta and Vata doshas*. The patient was asked to avoid spicy, sour, oily, fermented, and refrigerated food items. She was advised to avoid sun exposure, sleeping in

11. Discussion

The patient had consulted three surgeons and had taken many courses of antibiotics and anti-inflammatory drugs for the past 7 months, however, the ulcer did not heal. This made her mentally weak and.This was a major limitation in the case. The patient being non-diabetic and non-hypertensive, and strictly adhered to all the diet regimen and timely medicine intake as instructed. Incompetence of the valves of the superficial and deep veins of the leg result in venous hypertension.Fibrin gets excessively deposited around the capillary beds leading to elevated intravascular pressure. This fibrin decreases the oxygen permeability by 20-fold leading to tissue hypoxia causing impaired wound healing. Various inflammatory cells get trapped in the fibrin and promote severe uncontrolled inflammation, preventing proper regeneration of the wound.

12. Conclusion

The chronic venous ulcer which had not healed for 7 months despite many courses of antibiotics and anti-inflammatory therapy, healed in 60 days with Local application of Twakasanjanan Ghruta. This suggests the efficacy of Local application of
Twakasanjanan Ghruta in the healing of chronic ulcers. Non-recurrence of the ulcer even after 6-months of the stoppage of medicines indicates the complete reversal of pathology in the venous level itself. However, a detailed study of the same with larger sample sizes will help to formulate a treatment protocol for such cases.Chronic venous ulcers are a challenging medical condition, but the integration of Ayurvedic therapies like Twaksanjanan Ghruta offers a promising avenue for enhancing skin regeneration (Twakasanjanan) and wound healing(Ropana). The anti-inflammatory, antimicrobial, and regenerative properties of Twaksanjanan Ghruta make it a valuable addition to the wound care armamentarium. Further research is needed to substantiate its clinical benefits, but early findings suggest that it holds potential as an effective local therapy for chronic venous ulcers.

13.References

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