SJIF Impact Factor (2026): 8.863| ISI I.F. Value: 1.241| Journal DOI: 10.36713/epra2016 ISSN: 2455-7838(Online)
EPRA International Journal of Research and Development (IJRD)
Volume: 11 | Issue: 4 | April 2026 - Peer Reviewed Journal

MANAGEMENT OF VARICOSE ULCER BY JALOUKAVACHARANA (LEECH THERAPY): A SINGLE CASE STUDY

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ABSTRACT
A male patient aged 58 Years from Bonai,Sundargarh,Odisha approached Shalya OPD of Gopabandhu Ayurveda Mahavidyalaya College and Hospital,Puri,Odisha with complain of an ulcer over the right lower leg with pain and swelling since 6months. Pain was very intense and whole foot was swollen. He was suffering from varicose vein 2years & had undergone laser surgery but had no relief rather the ulcer didn't healed further .On examination antero-posterior aspect of ankle joint ulcer was noticed. The ulcer was characteristically covered by unhealthy granulation tissue with slough, inflammation and watery discharge. Color Doppler revealed partial SPJ incompetence in right leg. Case was diagnosed as a chronic unhealed varicose ulcer. After proper investigation the patient was planned for ***Jaloukaavacharan.***

INTRODUCTION

A male patient 58 years came with complains of an ulcer over the right lower leg with pain and swelling since 6 months. Pain was very intense and whole foot was swollen. He was a diagnosed case of varicose veins since 2 year, had undergone laser treatment but had no relief rather the ulcer didn't healed further. After 6moths he came to the OPD of Gopabandhu Ayurveda Mahavidyalaya & Hospital,Puri. On examination antero-posterior aspect of the ankle joint ulcer was noticed. The ulcer was characteristically covered with unhealthy granulation tissue with slough, watery discharge and inflammation.

General Examination-
Pulse: 78/min
Temp:98.70^{0}F
BP: 130/90mmhg
R.R.: 21/ min.
Kshudha: Prakrut Nidra: Swabika
Mutra: Samyak Mala: Badha
Dosha: VatapradhanaKapha Dushya: Twak, Mamsa, Sira
Mala: Purisha
Srotas: Rasa,Rakta,Mamsa,Purisha and Manovaha Srotas

Colour Doppler
Primary varicose veins with left saphenopopliteal incompetency and incompetent perforators explain in the text Sub-cutaneous edema on lower leg bilaterally.No evidence of DVT or Ischemia.
Diagnosis: DushtaVrana (VaricoseUlcer)

Treatment Given
Daily dressing with Pachavalakala Kwatha and Jatyadi ghrita Lepa.
Six setting of **Jaluakavacharan** done keeping gap of 15days.
In each setting **Jaluakavacharan** 2-3 Leech were applied.

Materials & Methods

Material used for Jalaukavacharana-
Jalauka,Haridra powder, sterilized gauze pieces, dressing pad,cotton,gloves,disposable syringe,kidney tray, distilled water.

Method
The following treatment schedule was executed:-

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Patient was undergone six sittings of Jalauka Avacharana in 15days gap on OPD basis. *Jalauka Avacharana* was done in a standard protocol as described by *Acharya Sushruta*.

Jalauka Avacharana vidhi

The procedure can be briefed under three headings-

1. PoorvaKarma
2. PradhanaKarma
3. Paschat Karma

PoorvaKarma(preoperativeprocedure)-

This includes-

a) Collection of required materials
b) Preparation of patient
c) Preparation of Jalauka

Preparation of patient

Indicated person for the Jalaukavacharana should be made to sit or sleep in supine position then clean the area with warm water where Jalaukavacharana is to be done. If Jalaukavacharana is planned at the site of wound one should not rub because it increases the pain, there Jalauka will be attracted by Gandh and Kledata of the Vrana**.**

Preparation of Jalauka

Jalauka body is smeared with a paste of Sarshapa and Rajani. Then Jalauka is kept in clean water for period of one Muhoorta (48 min). By this procedure leeches will get rid of exhaustion and become activated.

PradhanaKarma(operativeprocedure)-

The patient is made to sit or lie on the bed.The area of the body where Raktamokshana is planned should be dried and allowed to bite by Jalauka. Jalauka will suck the blood by itself. If Jalauka does not bite or suck, a drop of milk or blood is to be shed on the surface or a small prick is to be made, in spite of all these if the Jalauka does not suck then another Jalauka is to be taken for Raktamokshana. If its face appears like the hoof of a horse and raises its neck (Ashvakhuravadanana) we can understand that it has started sucking blood. As soon as Jalauka starts sucking, wet white gauze should be covered on it, leaving its facial region.After sucking enough amount of blood Jalauka leave the host by its own. If the Jalauka doesn't leave and patient getting itching and pain at the site of Jalaukavacharana it is the indication of sucking pure blood and then Jalauka should be detached by sprinkling Saindhava Lavana Choorna at its mouth region.

Identification of Shuddharakta Pana by Jalauka-

At the site of Jalauka bite if the person gets pain and itching sensation then it should be under stood that it is sucking pure blood then it should be removed. Jalauka sucks only Dushta Rakta from the site where Dushta and Shuddha Rakta are in combined form, like how the Hansa Pakshi drinks only pure milk even though it is mixed with water.

Paschatkarma(post-operative procedure)-

a) PaschatKarma for Jalauka
b) PaschatKarma for patient

Paschat karma for Jalauka-

As soon as the Jalauka detaches from the patient body by itself or by force, haridra powder is sprinkled over its mouth & over its body . Then with the help of thumb and index finger of left hand tail end of the Jalauka should be caught then body of Jalauka is squeezed with the fingers of right hand towards its face in a reverse direction.This helps Jalauka to vomit the sucked blood. This is continued until the Samyak Vamana Lakshanas are achieved.

Samyak Vamana Lakshanas of Jalauka-

After Vamana Jalauka should be kept in vessel containing fresh water, if the Jalauka moves in the container actively, it is suggestive of proper Vamana. After proper Vamana, Jalauka becomes active and strong.

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Durvanta Lakshanas of Jalauka-

If too much of vomiting,Jalauka becomes very weak or even may die. If vomiting is improper, it becomes intoxicated or lazy. If Jalauka becomes lethargic after leaving in water, and settles down in bottom of the vessel then Vamana should be carried out again. If it does not vomit the whole blood, then Jalauka gets a disease called Indramada or Raktamada.

PaschatKarma for patient-

Considering the status of the patient after the Jalaukavacharana management of its bite site should be done as follows

- **In Samyakyoga** - Shatadouta Ghrita Abyanga or Jatyadi Taila at the site of Jalauka bite.
- **In Heenayoga**- Avagattana by Madhu and wound should be squeezed to cause blood flow.
- **In Atiyoga**- Sheetala Jala Parisheka,Pradeha and Bandana for arresting the haemorrhage.
- **In Mithyayoga** - Kashaya, Madhura, Sheeta, Ghritha Lepana should be done**.**
- If because of Sheeta Upachara, Vata aggravates and causes pain, itching, then Parishechana of warm ghee is to be done.
- Dressing was done with Jatyadi Taila and Panchavalakala Kwatha regularly, where as "Leech Therapy" was repeated 15days for 6 sittings.
- Total duration for treatment was 75days.

Assessment-

Assessment was done on-

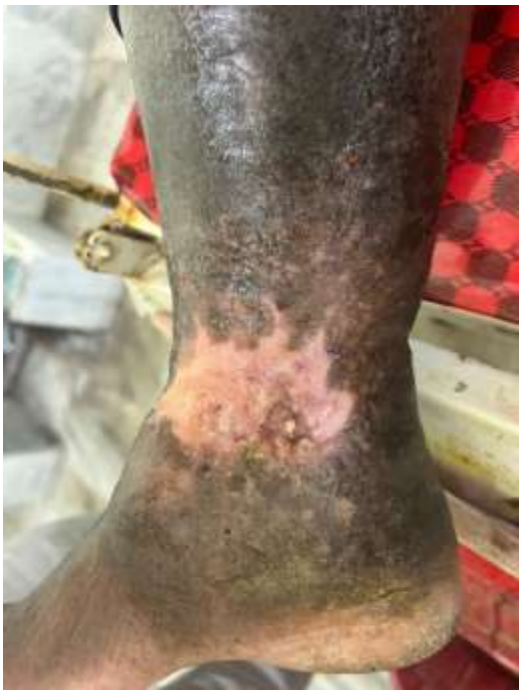
1. Day-01
2. Day-15
3. Day-30
4. Day-45
5. Day-60
6. Day -75

Changes occurred within the treatment period has been show in the picture.

Observation-

Day-1

Day-15



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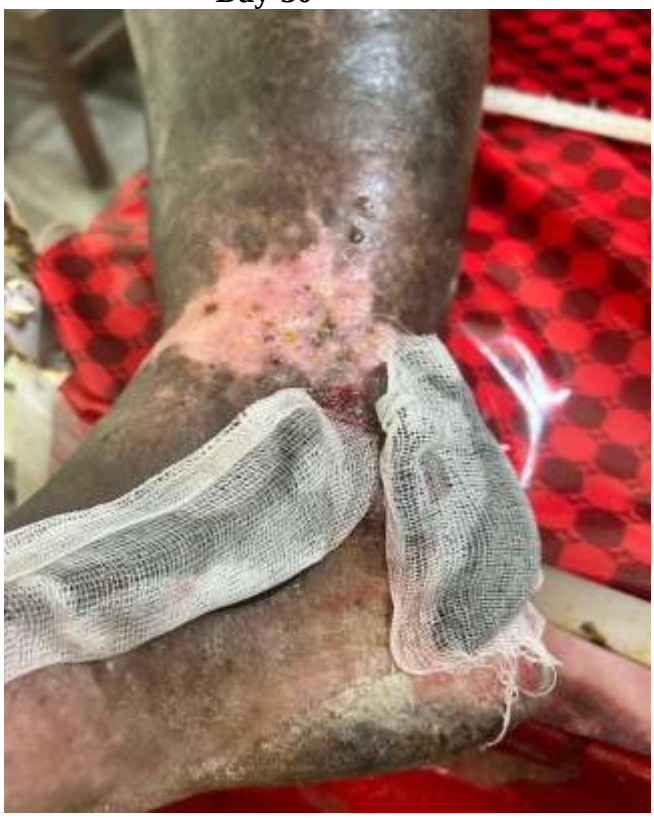
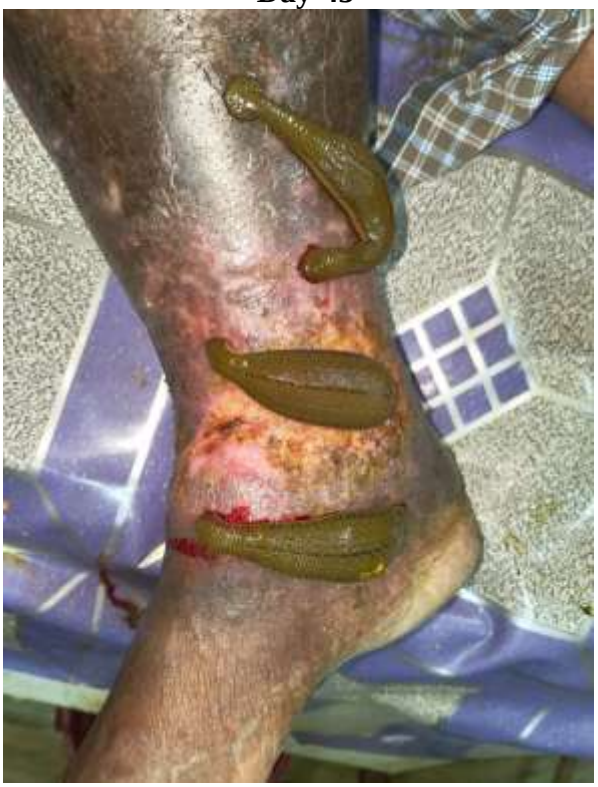
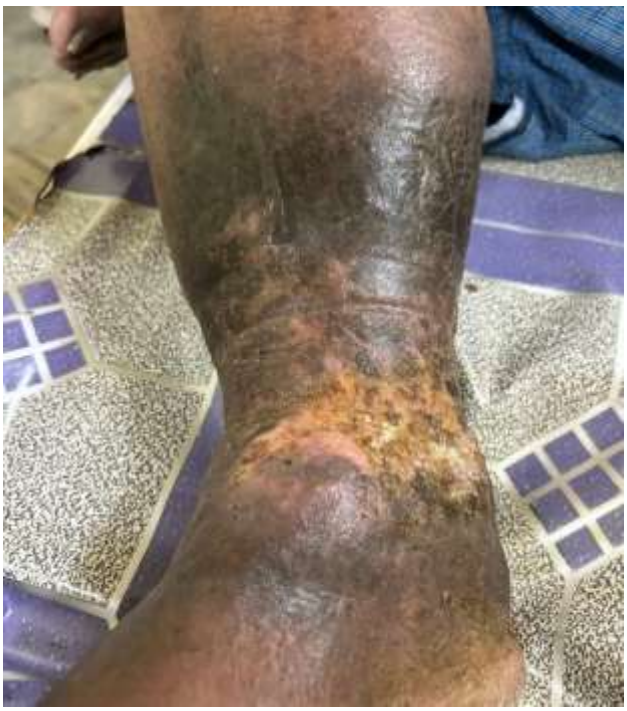
Day-30



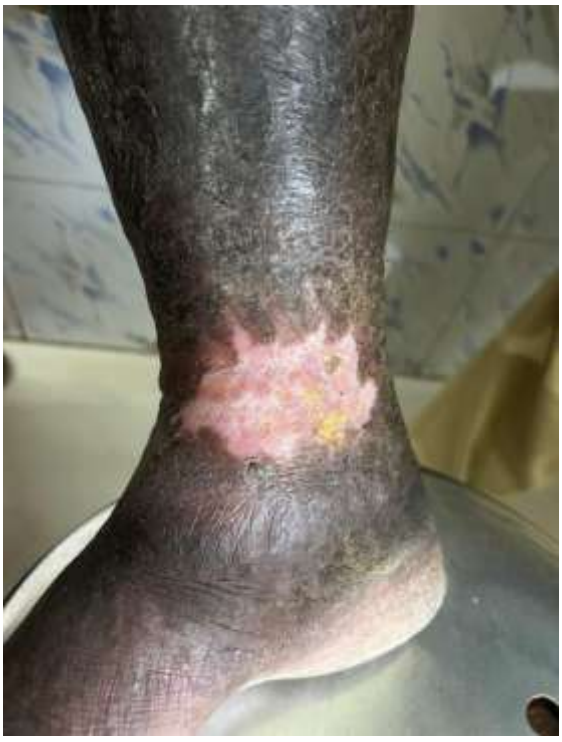
Day-45



Day-60



Day-75



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Medication

Patient prescribed medications-

- Tab rasasindoor 1tab Bd AF
- Guggulu tiktam kasayam- 15ml Bd AF
- Kaisore Guggulu 2tab bd af
- Panchavalakala kwath prakhyalana twice daily
- Jatyadi ghrita (L/A)

DISCUSSION

After Leech application expulsion of impure blood takes place, due to which local vitiated Doshas (toxins & unwanted metabolites) are removed. Similarly, it facilitates more fresh blood supply & promotes wound healing by formation of newer tissues.

Due to improved blood circulation,skin discoloration is corrected and venous valvular dysfunction is also pacified. Thus, it breaks the pathogenesis of "varicosity" at cellular level and helps in wound healing.[6]

Sira and Snayu are the Updhatu of Rakta,Jaluka acts as ‘Raktaprasadniya’. Hence,healthy newer tissues were formed along with strengthening of the blood vessels, thus corrects venous valvular dysfunction.

Medicinal leech (*Hirudo medicinalis*) saliva contains hirudin,which inhibits blood coagulation by binding to thrombin. Medicinal leech therapy in producing venous decongestion,reversal of oedema,hyperpigmentation and healing of varicose ulcers.

CONCLUSION

Jalukavacharana is the right choice of Sirajagranti Janya Vrana. Leech therapy proves to be effective, time saving, affordable and acceptable treatment in varicose ulcer.We can conclude that Ayurveda can give a ray of hope in the treatment of varicose veins and varicose ulcer. After 75days of Treatment the wound healed completely.

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