

# Ajan Vruksha/ Khandu Chakka (*Ehretia Laevis Roxb*). Plant Leaves as A Effective Healer in Chronic Varicose Vein Ulcer. – A Case Report

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## Abstract

**Introduction**— Varicose vein ulcer is caused by abnormal function of veins due to chronic vein insufficiency, vein damage, ageing, obesity, congestive heart failure. *Ehretia Laevis Roxb.* plant is traditionally used for wounds<sup>(1)</sup>. Also its efficacy is tested in various wounds except chronic varicose ulcer.<sup>(2)</sup>

**The main symptoms of the patient and the important clinical findings:-** Patient having swelling, redness at right foot, yellowish pus discharge, blackness of skin and presence of ulcer since three years with severe pain and inability to perform his regular duties

**The main diagnoses, therapeutics interventions, and outcomes:-** Patient having chronic varicose vein ulcer at right leg since three years. *Ehretia Laevis Roxb.* leaves paste was prepared under all aseptic precaution and daily dressing of *Ehretia Laevis Roxb.* paste done on wound. Severe pain was reduced within 48 hrs after application of paste, which was significant finding. Wound was healed within 40 days without any complication and use of antibiotics and pain killer

**Conclusion**— Patient was very happy as he got immediate relief from pain and his wound was healed without any invasive procedures by application of *Ehretia Laevis Roxb.* leaves paste.

**Key Words:** - Chronic Varicose Vein Ulcer; Khandu Chakka, Ajan Vruksha, *Ehretia Laevis Roxb.*

## Introduction

In western world 10-20 % and in India 5% population is affected by varicose vein.<sup>(3)</sup> Varicose vein ulcer is caused by abnormal function of veins due to chronic vein insufficiency, vein damage, ageing, obesity, congestive heart failure. *Ehretia Laevis Roxb.* plant is traditionally used for wounds. Also its efficacy is tested in various wounds except chronic varicose ulcer. Plant has various chemical compounds useful in wound healing. This plant is named as Khandu Chakka and also known as Ajan Vruksha.<sup>(4)</sup> *Ehretia Laevis Roxb.* plant has anti microbial activity against various gram positive and gram negative organism. <sup>(5-6)</sup>.

**Patient Information:-** Mr. Sridhar Khandar Age-65, Vadhona Bazar, Yavatmal (MS) was reported at MGACH & RC with leg ulcer with severe pain and insomnia due to chronic pain.

**Clinical Findings:-** Patient having chronic varicose vein ulcer at right leg since three years with severe pain and inability to perform his regular duties. Patient was reported at MGACH & RC with swelling, redness at right foot, yellowish pus discharge, blackness of skin and presence of ulcer. Patient has no history of Diabetes Mellitus, Hyper tension and no specific family history of major diseases. Patient was taking allopath treatment including pain killer and antibiotics since two and half years. Then he has taken homeopathy and ayurvedic

treatment. But he has not get relief for wound and pain. Due to chronic pain patient was suffering from insomnia and irritation.

**Timeline:** - Patient was suffering from ulcer with pain since three years

**Diagnostic Assessment:-** Patient was investigated for complete blood culture, bleeding time and clotting time, HIV, HBs Ag and Random Blood Sugar.

Wound is measured by following formula on every alternate day.

$$\frac{\text{SAI} - \text{SAC}_i}{\text{SAI}} \times 100 = \text{_____}\%$$

reduction

(\*SAI= surface area (LxW) on admission, SAC = surface area currently)

Sr. No	Name of investigations	Results
1	Hb%	14.1.gm%
2	MCV	100 Cub.Micron
3	MCH	30.6 Pico gm
	MCHC	30.6%
4	Total RBC count	4.61 millions/cu/mm
5	RDW	11.5 %
6	HCT	46.2%
7.	Total WBC count	9500/cu.mm
8	Monocytes	3%
9.	Granulocytes	74%
10.	Lymphocytes	21%
11	Eosinophils	2 %
12.	Basophils	0 %
13.	Total Platelets Counts	5.63 Lacs/cu.mm
14	Bleeding time	190 seconds
15	Clotting time	330 seconds
16	HIV	Non Reactive
17.	HBsAg	Non Reactive
18.	Random Blood Sugar	113mg%

Wound swab was sent for culture and sensitivity test. Klebsiella pneumonia gram-negative, Proteus mirabilis is a Gram-negative bacterium, Methicillin sensitive coagulase positive staphylococci organism were found in culture report. Klebsiella pneumonia gram-negative was sensitive to Amikacin, Ciprofloxacin, Ceftazidime, colistin, Co-trimaxazole, Gentamicin, tetracycline. Proteus mirabilis is a Gram-negative bacterium was sensitive to Amikacin, Ciprofloxacin, Colistin, Co-trimoxazole, gentamicin and resistant to Ceftazidime, tetracycline. Methicillin sensitive coagulase positive staphylococci was sensitive to Amikacin, Ciprofloxacin, Linezolid, Penicillin, Vancomycin and resistant to Ciprofloxacin, Erythromycin.

**Therapeutic Intervention:-** Ehretia Laevis Roxb. leaves paste was prepared under all aseptic precaution and daily dressing of Ehretia Laevis Roxb. paste done on wound.

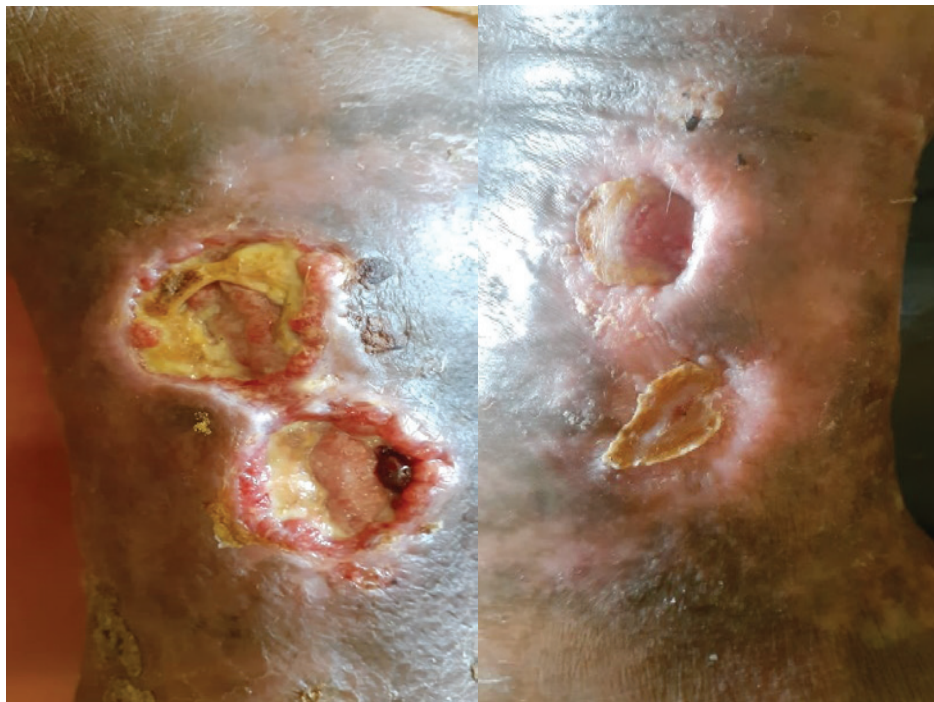
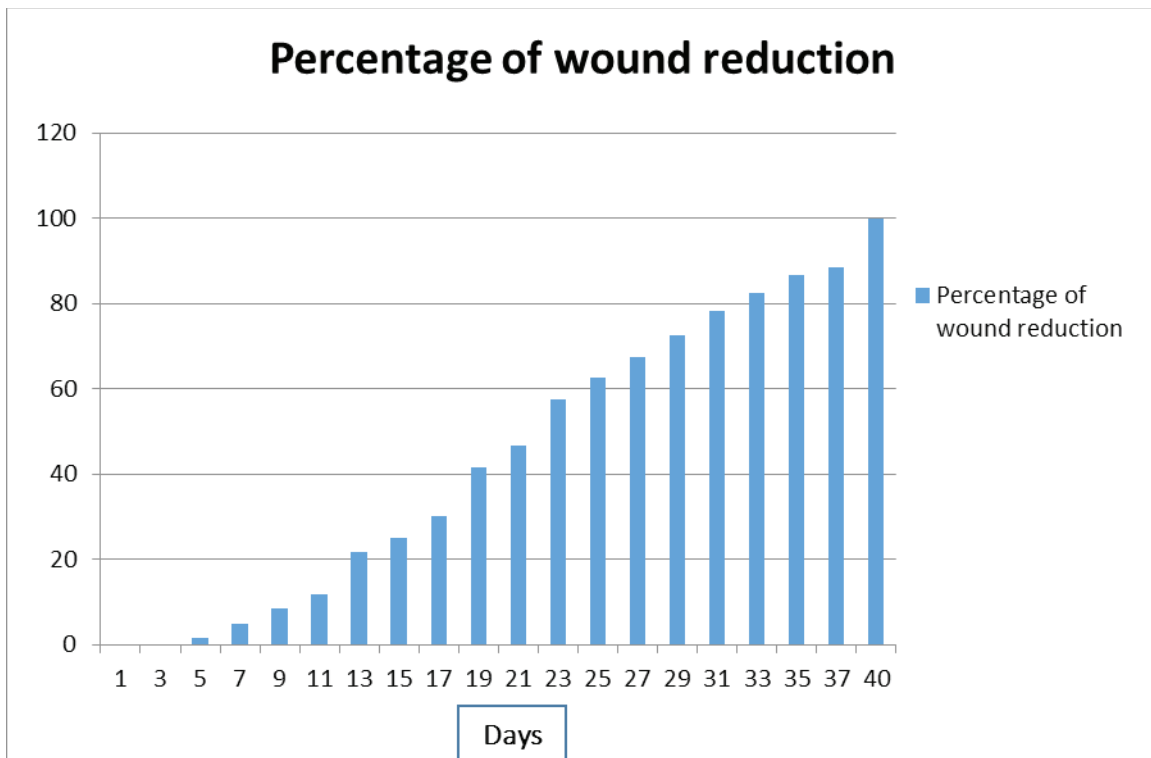
**Follow-up and Outcomes:** - Severe pain was reduced within 48 hrs after application of paste, which was significant finding. After two days there was no pain. Due to no pain his insomnia and irritation improved. Slough was removed after four days and granulation tissues were appearing from forth day. Wound was healed within 40 days without any complication and use of antibiotics.

Wound is measured by following formula on every alternate day by following formula

$$SAI - SAC_i / SAI \times 100 = \text{_____} \% \text{ reduction}$$

(\*SAI= surface area (LxW) on admission, SAC = surface area currently)

Sr. No.	Day	Percentage of wound reduction
1.	1	0%
2.	3	0%
3.	5	1.6%
4.	7	5%
5.	9	8.33%
6.	11	11.66%
7.	13	21.66 %
8.	15	25 %
9.	17	30 %
10.	19	41.66
11.	21	46.66
12.	23	57.5 %
13.	25	62.5 %
14.	27	67.5 %
15.	29	72.5 %
16.	31	78.33 %
17.	33	82.5 %
18.	35	86.66 %
19.	37	88.33 %
20.	40	100 %



**Figure:-1**

(Chronic varicose vein ulce treatment)

**Figure:-2**

(Chronic varicose vein ulcer after before yreatment)

## Discussion

There is swelling in varicose vein, causes skin changes and damage. When there is swelling, there is lack of blood supply and supply of required nutrition and oxygen for tissues. This hampers healing procedures. Due to continuous tension of blood in veins there is continuous chance of heavy bleeding of blood even by minor injuries, but it may control by *Ehretia Laevis* Roxb. laves paste as it has blood clotting properties.<sup>(7)</sup>

There is chance of blood coagulation. Up to three of individuals having varicose vein suffering from very pain full. blood clots. In about 25% patients suffering from blood clot landed into the deep vein thrombosis:<sup>(8)</sup> It is medical emergency and requires immediate interventions. The main risk of deep vein thrombosis is embolism in lungs and brain.

Chronic varicose veins result into stagnation of deoxygenated blood There is constant tension in tissues, there is leakage of fluids into the encompassing tissues, results in the swelling and results in chronic non healing venous ulcer. This results in delay in healing even by minor injuries. Reduction in swelling results in proper supply of nutrition to injured tissue. Application of *Ehretia laevis* Roxb. reduce swelling as it has anti inflammatory property and helps for proper supply of required nutrition. As swelling and pain is reduced by application of *Ehretia laevis* Roxb. leaves paste patient has got relief from insomnia and irritation within three days . As his stress was reduced he can continue his routine works.

**Patient Perspective:-** :- Patient was very happy as he got immediate relief from pain and his wound was healed without any invasive procedures, antibiotics and pain killer. This results in financial saving of needy farmer.

**Conflict of Interest:-** Nil

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