

Comparative Clinical Study of Efficacy of Seethodaka Oil and Dashanga Lepa in the Management of Chronic Ulcers

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Received: August 21, 2020

Accepted: September 10, 2020

Published: September 19, 2020

Abstract: Wound healing is a complex and dynamic process with the wound environment changing with the changing health status of the individual. The knowledge of the physiology of the normal wound healing trajectory through the phases of haemostasis, inflammation, granulation and maturation provides a framework for an understanding of the basic principles of wound healing. Through this understanding the health care professional can develop the skills required to care for a wound and the body can be assisted in the complex task of tissue repair. A chronic wound should prompt the health care professional to begin a search for unresolved underlying causes. Healing a chronic wound requires care that is patient centered, holistic, interdisciplinary, and cost effective and evidence based. Forty patients with varicose ulcers were enrolled in this comparative clinical study. For each group twenty patients were selected randomly, informed consent was attained and then they underwent treatment with either *Seethodaka* oil or *Dashanga Lepa* for dressing daily for 8 weeks. The follow up duration was minimally 1-2 months. In the study percentage of 57.5% male and 42.5% female patients in the sample Age group of 30 to 40 years 20%, 41 to 50 years 32.5% and 51 to 60 years 47.5% of patients were chronic ulcers with different wound size, pain and other criteria in the two groups. P values of group A > P values of group B, therefore reduction of the wound size in the Group B (*Dashanga Lepa*) is more significant than Group A (*Seethodaka* oil). It was concluded that the application of *Dashanga Lepa* can be used more effective than *Seethodaka* oil on healing of the wound management.

Keyword: Varicose ulcer, *Seethodaka* oil, *Dashanga Lepa*.

Background and Objective

Chronic wounds affect 60 million people worldwide and cause a heavy burden on patients, families and society [1]. Although various treatments are available in western medicine, chronicity and delayed healing of wounds continue to impair lives [2]. Wound healing is determined by the general health of the patient [3]. All wounds originate in the acute stage of healing and derive from a variety of reasons including trauma, surgery, sickness or bodily inadequacies such as venous insufficiency [4]. In general, any trauma that leads to tissue damage can result in a chronic wound [5]. Chronic wounds arise from conditions including diabetes, venous hypertension, alterations in health status and immune function suppression. [6]. Acute wounds become chronic wounds when biological and environmental factors combine to create a wound environment that fails to support natural and timely healing process. Effective Ayurveda medicine has been used for thousands of years for the management of various chronic wounds [7]. *Seethodaka* oil and *Dashanga Lepa* were prepared according to the classical text of Ayurveda Pharmacopeia and usually *Seethodaka* oil use for the burn wounds and acute cut injuries [8]. *Dashanga Lepa* was use for the edema conditions and acute

inflammatory conditions. The objective of this research is to determine the efficacy of *Seethodaka* oil and *Dashanga Lepa* in chronic wound care.

Methodology

Patients for this clinical trial were selected randomly from Shalya Clinic of Gampaha Wickramarachchi Ayurveda Hospital, Yakkala. This studied on 40 patients with chronic wounds (wound more than one month) were recruited and those who have diabetes wound, carcinoma wound, age group below 30 years and above 60 years were excluded. Selected individuals were divided randomly in to two groups as A and B. Each group comprised of 20 patients. Both groups are treated same internal medicine. Group A were treated by *Seethodaka* oil and Group B were treated by *Dashanga Lepa* for external application. Written informed consent and detailed description proforma were taken from the patients, prior to initiation of the examination and treatment. Patients were advised to take every day dressing and other internal medicines.

Method of indication

Both groups were treated under same manner. *Tripala* decoction was used to wound cleaning. Every day wound cleaning and dressing were done. Internally all patients were treated *Tripala choorna* 1g morning and evening after meal, *Kaishora guggulu* one pill morning and evening after meal. Group A was treated by *Seethodaka* oil for dressing externally and group B was treated by *Dashanga Lepa* for dressing externally.

The external drug was applied properly and patients were observed daily and following standard assessments were made on every week. This was followed up for 8 weeks. Common health related advices and instructions were given for both groups with the treatment procedure and dietary and lifestyle.

Assessment criteria:

Following standard assessments were made.

- ✓ Size (length X width X depth)
- ✓ Wound bed (black, yellow, red, pink)
- ✓ Exudates (copious, moderate, mild, none)
- ✓ Wound edges (callus & scale, maceration, erythema, oedema)
- ✓ Odor (absent, present)
- ✓ Pain (persistent, temporary)
- ✓ Condition of surrounding skin (normal, oedema, warmth, erythema)
- ✓ Clinical signs of critical infection (present, not)

Date collection:

Objective parameter (wound size) was measured by conducting clinical trial which is 8 weeks of duration [9]. Subjective parameters (wound bed, exudates, wound edges, odor, pain condition of surrounding skin, clinical signs of critical infections) [10] were measured by using data collecting sheet which has consisted with scoring scale. Data were analyzed statistically using SPSS software.

Results and Discussion

The majority of studied patients were in 51-60 age group (47.5%) followed by 41-50 age group (32.5%) and 30-40 age group (20%) which indicates that the 51-60 age groups are more vulnerable to chronic wound. This may be due to that they engage in heavy works such as farming, lobar works and they are not serious mind to their illness too. Therefore, they didn't take proper treatment or dressing for their wound, due to that wound become a chronic wound. The majority patients were male (57.5%) but 42.5% number of female patients were also reported. This indicates that males are more affected by chronic wound. This may be due to that males are physically more active and they engage in heavy works that don't have time to pay attention to their wounds.

The wound assessment criteria were evaluated for group A and group B separately for start of treatment (1st week) and end of treatment (8th week). Reduction of pain in group A and B observed with the treatment (Table 1).

Table 1. Comparison of mean pain decrement of the patients in the group A and group B

Week	1	2	3	4	5	6	7	8
Group A	2.50	2.20	1.80	1.50	1.30	1.20	1.20	1.20
Group B	2.55	2.10	1.65	1.50	1.30	1.25	1.25	1.25

The above data represented as follows

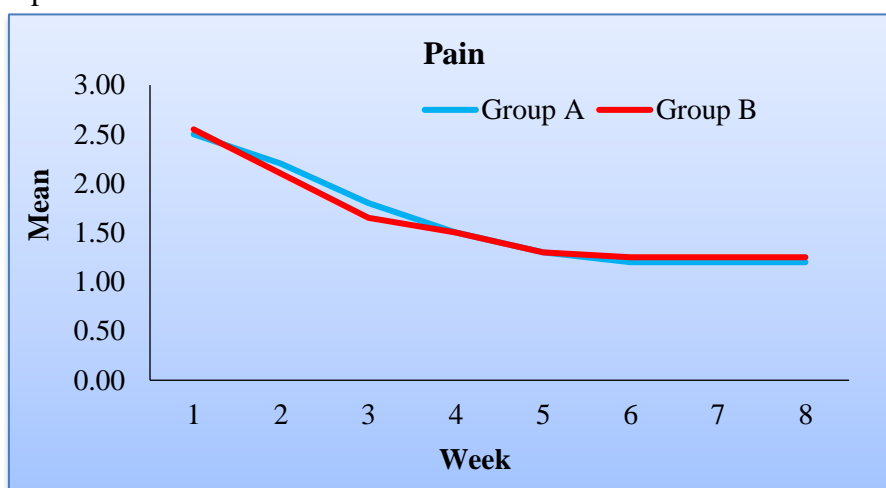


Figure 1. Comparison of mean pain decrement of the patients in the group A and group B

Exudates changes can be represented are as follows.

Table 2. Comparison of mean score of amount of exudates changes of the patients in the group A and group B

Week	1	2	3	4	5	6	7	8
Group A	3.050	2.700	2.000	1.700	1.400	1.200	1.200	1.200
Group B	2.900	2.250	1.800	1.500	1.400	1.250	1.100	1.100

The above data represented as follows:

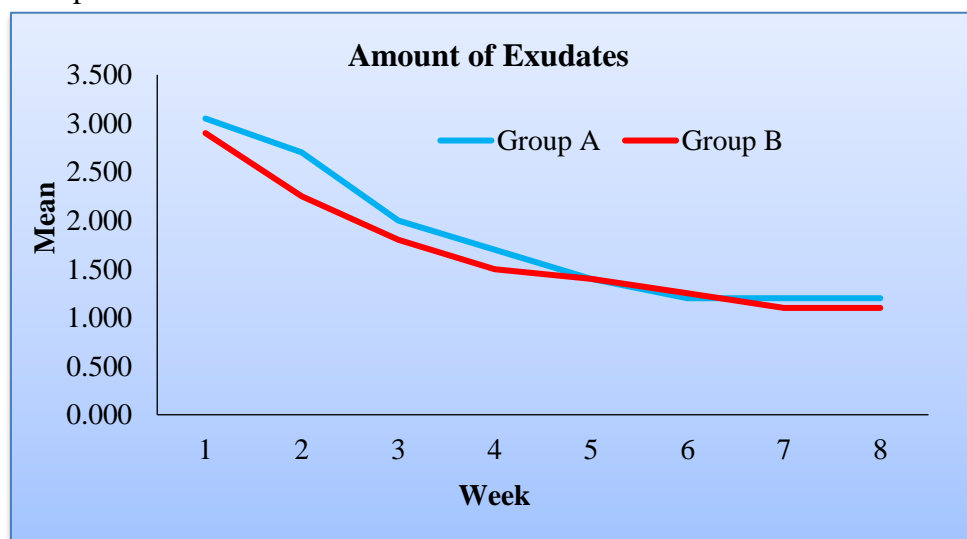


Figure 2. Comparison of mean value of amount of the exudates changes of the patients in the group A and group B

Wound edge changes can be represented are as follows.

Table 3. Comparison of mean value of wound edge changes of the patients in the group A and group B

Week	1	2	3	4	5	6	7	8
Group A	2.35	2.15	1.68	1.00	0.68	0.40	0.20	0.10
Group B	2.50	2.70	1.60	1.00	0.70	0.55	0.40	0.30

The above data represented as follows.

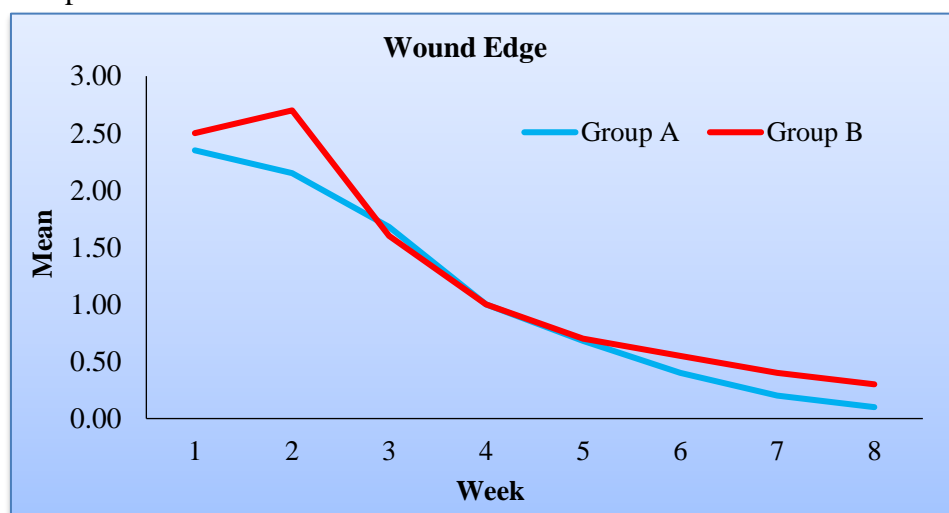


Figure 3. Comparison of mean score of wound edge changes of the patients in the group A and group B

Condition of surrounding skin changes can be represented are as follows.

Table 4. Comparison of mean value of condition of surrounding skin change of the patients in the group A and group B

Week	1	2	3	4	5	6	7	8
Group A	2.65	2.25	1.75	1.35	1.21	1.15	1.00	1.00
Group B	2.95	2.40	1.85	1.50	1.40	1.25	1.20	1.20

The above data represented as follows

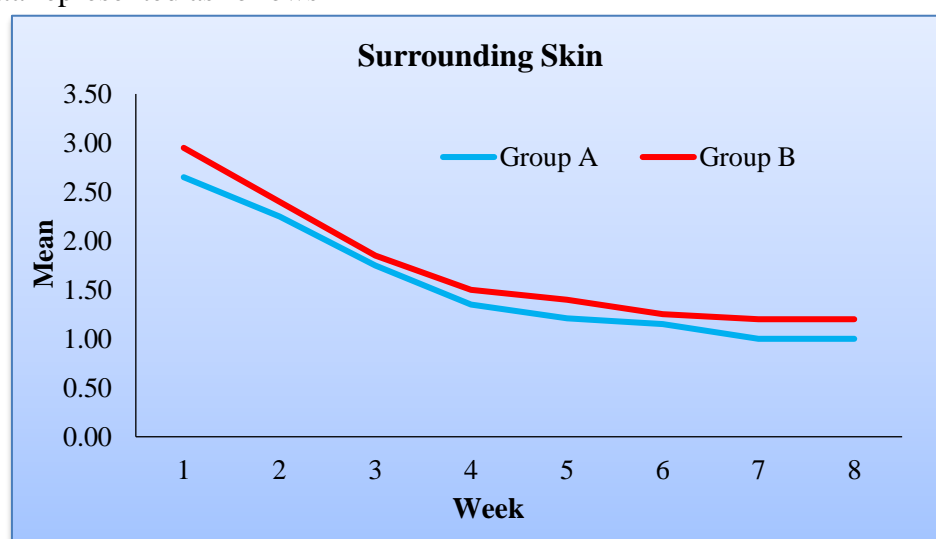


Figure 4. Comparison of mean surrounding skin change of the patients in the group A and group B

Wound size decrement can be represented as follows.

Table 5. Comparison of mean wound size decrement of the patients in the group A and group B

Week	1	2	3	4	5	6	7	8
Group A	16.017	14.415	12.053	10.004	7.458	5.681	4.193	3.286
Group B	24.951	23.686	19.614	16.620	13.365	10.570	8.297	6.473

The above data represented as follows

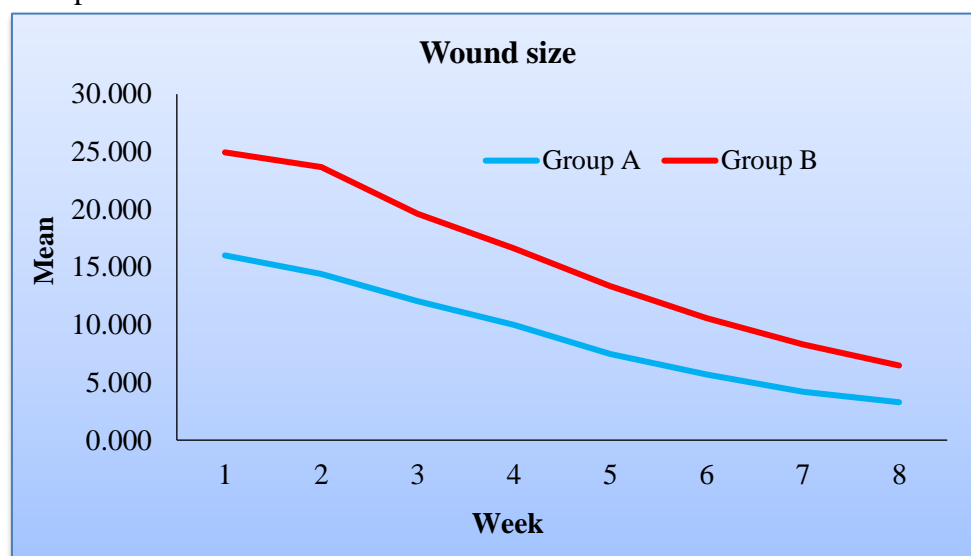


Figure 5. Comparison of mean wound size decrement of the patients in the group A and group B

Seethodaka oil comprises lots of herbal leaves. All these drugs possess mainly anti-microbial, anti-inflammatory and analgesic, antiseptic and as an astringent, anti-fungal activity. *Dashanga Lepa* comprises of ten herbal ingredients [11]. All these drugs possess mainly an antinociceptive, analgesic, antibacterial, antiplasmodic, antiseptic, decongestant, anesthetic, sedative, anti-inflammatory, disinfectant, insecticide substances and astringent. Pharmacological effect also shows that the *Dashanga Lepa* has many substances to promote wound healing [12].

Conclusion

Finally, based on the observed results and the pharmacodynamic properties of both drugs, it may be concluded that *Dashanga Lepa* is more effective than *Seethodaka* oil.

Conflicts of interest

There are no conflicts of interest.

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Citation: Samaranayake GVP, Chandimal KM. Comparative Clinical Study of Efficacy of Seethodaka Oil and Dashanga Lepa in the Management of Chronic Ulcers. Int J Rec Innov Med Clin Res. 2020;2(3):154-159.

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