Management of Dusta Vrana with Ayurvedic Medicine: A Case Report

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ABSTRACT

Non-healing ulcers nowadays become the most challenging issue for surgical practitioners. In this case study, a 36-year-old female patient was presented to the Shalya department with a non-healing ulcer on her right breast for two months that was managed through ayurvedic treatment. The patient was advised to take ayurvedic medicines (Triphala guggulu, Arogyavardhini vati, Mahamanjisthadi kwath, and Gandhak rasayana) internally and ayurvedic decoction (decoction of Securinega leucopyrus (Willd.) Muell, Tabebuia avellanedae Lorentz ex Griseb, Panchavalkal, Triphala, Neem, Khadira with Sphatika and Jatyadi oil was used locally to clean the ulcer which was found to be very effective. The ulcer healed completely in 3 months. This case study focuses on the potency of Ayurveda in managing such hopeless non-healing ulcers where other medical sciences have limitations to skin grafts only.

Keywords: Dusta vrana, Non-healing ulcer, Panchavalkal, Securinega leucopyrus, Tabebuia avellanedae.

INTRODUCTION

The father of Surgery, Acharya Sushruta has defined Vrana as “Vrana Gatra Vichurnane, Vranayati Iti Vranaha.” Gaatra means body part (or body tissue), and Vichurnane means destruction (or discontinuity of the body tissue). So, the destruction or discontinuity of a body part or body tissue is Vrana. Vrana is of two types they are Sadyo Vrana & Dushta vrana. While explaining the Shashti upakram of Vrana chikitsa, Acharya Sushruta has mentioned the Dushta vrana as a wound that is difficult to heal. In the same manner, A wound that fails to heal in the expected time or within three months is generally considered as a Non-healing ulcer. The wound is healed in three ways-primary intention, secondary intention & tertiary intention (delayed primary intention). Sometimes the wound refuses or fails to heal, this type of wound is called a Non-healing wound because the wound-healing process is dependent on several local and general factors. The wound might be severe in itself, the poor state of health of the individual, or might have an underlying disease hidden. Acharya Sushruta has also mentioned that wounds appearing on Twaka (skin) will be healed soon but self-appeared on other Dhatus besides Twaka (skin) as Mamsa (muscle) and Shira are difficult to treat. Wound having Amanogya darshan (unpleasant appearance), Durgandha yukta (unpleasant odour), Putipuya sravayukta (Putrefying pus), Dahayukta (burning sensation), Pida yukta (painful) and presented with Upadrava (complications) is Dusta vrana.

In this case, the patient was presented with a wound having similar types of symptoms like Amanogya darshan, Putipuya srava, Daha, and Pida and not healing for 2 months besides continued use of medications. So, we followed therapies like Prakshalana, Lepa, and Kashyapaana under the Shashti upakram of Vrana chikitsa as explained by Acharya Susruta.

CASE REPORT

A 36-year-old female patient was admitted to Ayurveda Teaching Hospital, Kirtipur on 2078/11/18 with a non healing ulcer on her right breast for 2 months. According to the patient, she slipped down on the passage of her house a few months ago and got injured on her right breast. Then she visited the local medical shop nearby, where she was...
prescribed 10 days of antibiotics (cloxacillin and ibuprofen). But those medications lead to continuous pus discharges from the wound rather than being treated. Then she was referred to another modern hospital for the further management of non-healing ulcer. Aspiration was done at first and it was a dry tap. Incision and Drainage were done there for 5 times in the interval of 3-3 days with oral medications (Cloxacinil, Metronidazole, Chymoral Forte, and Vitamin B and C). Afterward, she was advised of a skin graft because the wound was not healing and getting worse. Then she visited our hospital for proper management of the wound.

There was no history of diabetes, hypertension, malignancies, or metabolic disorders. Also, no history of surgical intervention was recorded. The patient was nonvegetarian, non-alcoholic, and non-smoker. Immunization was done as per the EPI. There was no type of allergic reaction reported. The patient was a housewife with normal appetite, sleep, bowel, and urine habit. There was no significant family history.

Her menstrual cycle was regular. The duration of bleeding was 3-5 days, the menstrual cycle was of 28+/-2 days. Dysmenorrhoea or clots were absent. The patient was married with obstetric history of G2P2A0L2D0 normal vaginal delivery 26 months back.

On examination, there was a 7cm*5cm*2cm ulcer present in the lower quadrant of the right breast at the 6 o’clock position. There were irregular margins and sloping edges with necrosed tissues and a sloughy floor. Pus discharge was recorded. Bleeding was absent. There was no odour recorded. Tenderness of Grade 2 was present on palpation. The surrounding area was red, edematous, and glossy. Regional lymph nodes were enlarged, soft, and smooth in consistency, movable, with tenderness presented (figure 1).

On hematological investigation, the Total Leucocyte Count was increased. It was 11400 cells/cumm. Parasitological investigation and Biochemical investigation were normal. CRP level was raised to 39.06 mg/L. Chest XRAY / Electrocardiography was normal. SARS-COV-2 and serology were negative.

USG of B/L breasts was done by a patient after the last Incision and Drainage procedure which shows a right breast abscess with cellulitis. Heterogeneously hypoechoic collection measuring 39.8 mm * 32.1 mm * 32.8 mm, volume - 21.9 ccs was noted at the 6-9 o’clock position of the right breast. Increased echogenicity with thick subcutaneous tissues with increased vascularity was noted in the right breast. Right axillary lymph nodes were reactive.

Chronic mastitis with foreign body giant cell reactive was reported in the Histopathology report. On microbiological investigation, there was no growth after 24 hrs of incubation at 37 degrees Celsius in pus culture and sensitivity.

RESULTS AND DISCUSSIONS

To assess the healing, photographs of wounds were taken at weekly intervals. The first photo was taken when the patient visited us for the first time with an unhealthy wound. (Figure 1)

<table>
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<th>Table 1: Treatment Chart</th>
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<td><strong>From</strong></td>
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| 2078/11/18 | 2078/12/3 | 1. Tab. Triphala Guggulu 2tab * BD * AF  
2. Tab. Arogyavardhini vati 2tab * BD * AF  
3. Syp. Mahamanjisthadi 20ml * BD with an equal amount of water * AF |
| 2078/12/4 | 2078/12/13 | 1. Tab. Gandhak Rasayan 2tab * BD * AF  
2. Tab . Arogyavardhini vati 2tab * BD * AF  
3. Syp. Mahamanjisthadi 20ml * BD with an equal amount of water * AF |
| 2078/12/14 | 2078/12/28 | 1. Cap. Powervit * 2cap * OD * 15 days |
| 2078/12/29 | 2079/01/13 | 1. Tab. Amypurin 2tab * BD |
| 2079/01/14 | 2079/02/10 | 1. Tab. Saptabinsati Guggulu 2tab * BD |
| **Local treatmenon (Vrankarma) in alternate days.** | 2078/11/18 | 2079/01/25 | 1. Washed with a decoction of Securinega leucopyrus, Tabebuja avellanedae, panchavalkal,an Triphala, neem, khadir with sphatika  
2. Jatyadi oil was applied  
3. Sterile packing and dressing were done. |
| 2079/01/26 | 2079/2/10 | 1. C.S.T.  
2. Six ‘C’ * LA * BD |
In 1\textsuperscript{st} and 2\textsuperscript{nd} week, the wound was washed with the decoction of \textit{Securinea leucopyrus}, \textit{Tabeubuja avellanedae}, \textit{Panchavalkal}, \textit{Triphala}, Neem, Khadir with Sphatika. Then Jatyadi oil was applied. And sterile packing and dressing were done. She was taking Triphala Guggulu, Arogyavardhini Vati, and Mahamanjista kwath during this duration.

On the 3\textsuperscript{rd} week, ulcer with a sloping edge, pale and smooth tissue on the floor, and serous discharge were observed. This was a very good sign of healing. Then, unhealthy tissue was removed by debridement, and dressing on alternate days was continued with washing by the decoction and application of Jatyadi oil (figure 2). The patient was receiving Gandhak Rasayan, Arogyavardhini Vati, and Mahamanjista kwath during this period.

On the 4\textsuperscript{th} and 5\textsuperscript{th} weeks, the wound was observed into smaller sized with good epithelisation surrounded by healthy granulation tissues. Red granulation tissue on the floor was also observed. There was no serous discharge. It was the sign of a healthy ulcer. Washing with a decoction and application of Jatyadi oil was continued with sterile packing and dressing. The patient was taking Powervit capsules as a nutritional supplement throughout this duration.

On the 6\textsuperscript{th} and 7\textsuperscript{th} weeks, granulation tissue formation was observed. The size of the wound was significantly reduced. Local treatment was the same and the patient was taking Amypurin tablets throughout this period.

During this treatment wound healing was progressively favorable in the 8\textsuperscript{th} and 9\textsuperscript{th} weeks. Wound size was remarkably reduced with healthy contraction of wound margins. Washing with the decoction was continued and the patient was taking Saptabinsati Guggulu during the period.

On the 11th week, a completely healed wound was achieved. She was advised for Six ‘C’ ointment for the local application along with \textit{prakshyalana} with decoction for 2 weeks (10\textsuperscript{th} and 11\textsuperscript{th} week).

In this case, all signs and symptoms of Dustavrana got subsided and a completely healed wound was attained in 81 days. So, the unit healing time of this case is 1.15 days/ cu.cm. There was no negative impact noted throughout the treatment and healing occurred uneventfully.

![Figure 1: Before Treatment](image1.png) ![Figure 2: After Treatment](image2.png)

\textit{Triphala} Guggulu possesses \textit{Vranashodhana} and \textit{Vranaropana} properties with the property to heal \textit{Vidradhi} (Abscess) also as per the \textit{Sharangadhara Samhita}, \textit{Yogaratnakar} and \textit{Bhavaprakash}. \textit{Arogyavardhini Vati} has been mentioned in Rasaratna samucchaya as \textit{kustha} (ability to alleviate all types of skin disorders).\textsuperscript{4} Mahamanjistha kwath has the properties of \textit{Varnya}, Kapha pittashamak, Shothahar, Kushtaghna, Vranpraksh, Raktashodhak, Vedanashamak, Kandughna, Dahaprasanam, which are very helpful in treating an external ulcer.\textsuperscript{5} Gandhak rasayan is a polyherbal drug that is Raktashodhaka (blood purifier), Kandughna, and Rasayana mainly indicated in Kushta rog. It has antifungal and antibacterial properties. Thus, it reduces the infection.\textsuperscript{6,7} Powervit capsule is a nutritional supplement. Amypurin tablet is a patent drug with contents having properties to purify blood and skin infections. Saptavinsati Guggulu is a commonly used Ayurvedic drug to heal wounds, and skin diseases, treat infection, and prevent suppuration.

Extracts of the \textit{Securinea leucopyrus} leaves displayed a broad-spectrum antimicrobial activity, which is an important requirement of wound healing by controlling and reducing the microbial load.\textsuperscript{8,9} \textit{Tabeubuja avellanedae} (Bignoniaceae) is a very popular medicine in South and North America for antineoplastic, antifungal, antiviral, antimicrobial, antiparasitic, and anti-inflammatory treatment.\textsuperscript{10,11}

\textit{Panchavalkal}\textsuperscript{12} is the collective group of five barks where \textit{Pancha} is five and \textit{valkal} denotes barks. Panchavalkala has Kashaya and Sheeta properties. It is well known for \textit{Vranapraksha} (wound healer).\textsuperscript{13} It also has the properties of \textit{Vranaprakshalan}, \textit{Vranaropana}, \textit{Shothahar}, \textit{Upadanshahara}, and \textit{Visarpahara}. \textit{Panchavalkal} is used its different forms like extract, gel, ointment, douche, decoction, etc. Its decoction has the \textit{Shodhan} (cleaning) and \textit{Ropan} (healing) properties. Due to warmth, also improves circulation in the affected part. \textit{Panchavalkala} also manifests antimicrobial activity, which is advantageous during the healing of the wound.\textsuperscript{14}

\textit{Triphala} is a group of three fruits (\textit{tri}-three and \textit{phala}-fruits). Acharya Sushrut has suggested that the \textit{Triphala} is useful for treating ulcers and wounds. \textit{Triphala} not only destroys wound pathogens such as \textit{S.aureus}, \textit{S. pyogenes}, and \textit{P. aeruginosa} but also acts as a stimulant for wound healing due to the presence of polyphenols flavonoids, and ascorbic acid as active constituents.\textsuperscript{15} Neem (\textit{Azadirachta indica}), its bark has the properties of \textit{Twak doshara} (useful for skin diseases) and \textit{Krimighna} (antimicrobial). Its leaves have \textit{Sothaghna} (anti-inflammatory), \textit{Vran sodhaka} (cleaning), and \textit{Vranaropaka} (healing) properties with \textit{Krimighna} (antimicrobial), and \textit{Twakshohara} (useful for skin diseases) properties also.\textsuperscript{16}

\textit{Khadir} (\textit{Acacia catechu}), is useful in the treatments of \textit{Raktu vikara}, \textit{Kushtha}, and \textit{Charma rog} (skin disease).\textsuperscript{17} \textit{Khadir} has \textit{Tikta}. \textit{Kushaya rasa}, and \textit{Sheeta virya} which alleviates \textit{Pitta Kapha}. Acharya Charaka has mentioned it as the best \textit{Kustahara dravya} in \textit{Agraprkarana}. It also holds the properties like \textit{Kandugna}, \textit{Kustaghna}, \textit{Krimihara}, etc. The decoction has important ingredients like catechin (flavonoid), and catechu tannic acid. Thereby \textit{Khadir} helps for better absorption. And \textit{Kushaya rasa of Khadit} carries \textit{twakprasadak} and \textit{raktashodhak} properties.\textsuperscript{18}
Sphatika (Potash alum) is Vranaghna (property against the wound).\(^{25}\)It has properties of Kustaghna, Vishaghna, Raktaipitta hara, and Krimighna.\(^{26,27}\) It has been supported to reduce the formation of the colony of microbes,\(^{28}\) and also shows the larvicidal effects\(^{29}\) in microbiological laboratory practicals. It is also considered an antiseptic as it heals different kinds of wounds such as cuts, wounds, and blisters in our daily life too.\(^{30}\)

Jatyadi Taila, it has Vrana shodhana, Vrana ropana and Rakta prasadana properties\(^{32}\). So Jatyadi Taila is actually a boon for the Dusta vrana. Its ingredient; Nimba, Patola, Daruwaridra, and Abhaya acts in Shodhana of Vrana whereas, Nimba, Siktata, Manjistha, Lodhra, and Tila taila works on Ropana of Vrana. Haridra and Karanja have Kusthagna as well as Krimighna property, Therefore, it also prevents wound infection.\(^{31}\)

Talking about the strength of this case, we identified and treated the Dusta vrana successfully in 81 days under an Ayurvedic regimen. Study in large samples is still required. This case study may play a supportive role in further research in Dusta vrana.

**CONCLUSION**

In this case, we carried out upakramas as explained under the Shashti upakram of Vrana Chikitsa. Prakshalana was done with Ayurvedic decoction of Securinega leucopyrus, Tabebyja avellanae, Panchavalkal, Triphala, Neem, and Khadir mixed with Sphatika. Lepa was done with Jatyadi oil, and Kashayapaana of adjuvant Ayurvedic drugs was done-Aarogyavardini vati, Triphala guggulu, Mahamanjisthadi kwath, Gandhak rasayana, etc. And we achieved a completely healed wound in 3 months with no signs and symptoms of Dusta Vrana. Hence, it can be concluded that Dustavrana can be treated with an Ayurvedic regimen.

**DECLARATION OF THE PATIENT CONSENT**

The authors certify that they have obtained all appropriate patient consent forms. In the form the patient(s) has/have given her consent for her images and other clinical information to be reported in the journal. The patients understand that her names and initials will not be published and due efforts will be made to conceal her identity, but anonymity cannot be guaranteed.

**CONFLICT OF INTEREST**

Authors declare that there is no conflict of interest.

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