

**TO STUDY THE EFFECT OF APPLICATION OF NIRGUNDI LEPA IN THE
MANAGEMENT OF VRANASHOTHA****Dr. Ankita Anil Ingle^{*1}, Dr. Smita Madhavrao Kanawade²**P. G. Schloar^{*1} Associate Professor²Department of Shalyatantra^{1&2}, SMBT Ayurved College and Hospital, Nandi Hills, Dhamangaon, Igatpuri, Nashik.***Corresponding Author: Dr. Ankita Anil Ingle**

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ABSTRACT

– Inflammations caused by different causes and having different presentations are covered in the topic “SHOTHA” in Ayurveda. Vranashotha is the preliminary stage of nijavrana. Acharya Sushruta has mentioned a detail description of inflammatory swelling under the healing of vranashotha. Vedana (pain), utseda (swelling), stanikushma (raised local temperature), vivarnata (change in colour of skin) characterized vranashotha. Vranashotha is term used for the inflammation of wound or ulcer. The vitiated Vata dosha pushes the vitiated Rakta Pitta and Kapha into the circulation channels. These morbid elements obstruct Vayu which further, causing an accumulation of Pitta, Kapha and Rakta between the Twak and Mamsa and cause shotha(inflammation). Nirgundi is having analgesic, anti-inflammatory, antibacterial, cleaning and healing properties therefore it helps to reduce the inflammation and pain at the site of wound. In this study Nirgundipatra chura lepa is selected for local application in management of vranashotha.

KEYWORDS: Vranashotha, Inflammation, Nirgundi lepa.**INTRODUCTION**

Vranashotha has been documented in many texts between 1500 BC and 700 AD. Acharya Sushrutadescribed Varnashotha on basis of vitiation of Dosha and explained various features according to the Dosha dominate in them^[1] Acharya Sushruta defined Vranashotha as localized swelling involving the Twak and Mamsa which may be even or uneven, having accumulation Doshas and rising in any one part of body, ultimately leading to formation of Vrana if not treated on time^[2] Inflammatory swellings of skin and subcutaneous tissues which leads to suppuration can be considered under the term Vranashotha. According to Modern Science Inflammation is presented with these following signs: Rubor (redness), Calor (raised temperature), Tumour (swellings), Dolar (pain) and FunctioLaesa (loss of function)^[3] Shopta described by Acharya Sushruta is analogous to Inflammation in many aspects. Shotha is antecedent phase of Vrana (wound) as it is similar to Inflammatory process which leads to formation of an abscess. It can be clinically noticed as boil, furunculosis, cellulites, erysipelas etc. Acharya Madhava for the first

time introduced the new entity of Vrana Shotha as inflammation as a separate chapter. According to Acharya Charaka when vitiated Vaat comes in contact with vita to develop Shotha in and around the skin and the flesh but it is not limited to part of body.^[4]

Causes

- Improper cleansing treatments
- Suffering from Jwara and Pandu
- Upavasa (fasting) or eating incompatible foods
- Excess of sour foods with Amla & Teekshna Ahara
- Abhighata (trauma or injury)
- Diabetes or presence of other pathological and adverse effects of improper surgical interventions.

**CLASSIFICATION AND CLINICAL
PRESENTATION OF SHOTHA**

Acharya Sushruta described Vranashotha on basis of vitiation of Dosha into 6 types: Vataj, Pittaj, Kaphaj, Raktaj, Sannipattaj, Agantuj and explained various features of this Vranashotha according to the

Doshadominate in them and differentiated these types on its colour, intensity of pain, feel on touch etc.^[5]

VATAJ VARNASHOPHA: It has got following features.

- Varna - Krishna, Aruna.
- Its Mrudu on touch, but the over lying Skin- is Parusha.
- Toda, Bheda and Cheda type of pain is noted on and off.

PITTAJ VRANASHOTHA: It has got following features.

- Varna - Pilvala or Tamada.
- It is Mrudu to touch.
- It spreads quickly.
- Osha, Chosha, Daha type of pain is noted.

KAPHAJ VRANASHOTHA

- Varna- Pandu.
- Sparsha- Kathina, Sheetta, Snigdha.
- Kandu is present and the spread is slow.

RAKTAJA VRANASHOTHA

- Similar features as Pittaj vranashotha but is more black in colour.

SANNIPATTAJ VRANASHOTHA

- In this type of Vranashotha there are features of all type of Doshas.

AGANTUJ VRANASHOTHA

- In this type there are features of both Pittaj and Rakttaj Vranashotha and the colour is like iron.

AETIOPATHOGENESIS OF SHOTHA

As it is well known that the imbalanced state of Doshas lead to pathogenesis of diseases. Aetiopathogenesis of Shopha is much resembled to Inflammation in Modern Medical Science. Acharya Sushruta said that the pathogenesis of Shopha has definite sequential pattern, distributed over Shatkriya Kala. These Shatkriya Kala has been mentioned as follow.

SANCHAYA: Accumulation of physiological active Dosh.

PRAKOPA: Excitation of the previously accumulated and imbalanced Dosh.

PRASARA: Excited Doshas leave there original space and over flow.

STHAANASAMSHRAYA: Localisation of the imbalance Doshas at a particular site (Khavaigunya).

VYAKTI: Manifestation of Doshas in the form of disease with signs and symptoms.

AVASTHAS OR STAGES OF VRANASHOTHA

1. AMAAAVASTHA – Early stage of inflammation
2. PACHYAMAANA AVASTHA – Stage of inflammation.
3. PAKWAAVASTHA – Stage of suppuration.

INFLAMMATION

When body comes into contact with an invading agent such as bacteria, toxic chemicals, viruses, or injury occurs, it activates immune system. Immune system's first responders are inflammatory cells and cytokines. These cells initiate an inflammatory response in order to trap bacteria and other pathogens or to begin healing injured tissue. As a result, person may experience pain, bruising, redness and swelling. Inflammation is classified into two types as mentioned below.

1. Acute inflammation: The body's reaction to a sudden injury, body sends inflammatory cells to the wound to heal it; these cells initiate the healing procedure.

2. Chronic inflammation: Even when there is no external threat, body continues to send inflammatory cells. Conditions like in rheumatoid arthritis.

CLINICAL EXAMINATION OF INFLAMMATION

HISTORY DURATION: Those with shorter duration and pain - Acute Inflammation. Those with longer duration and slight pain - Chronic Inflammation.

MODE OF ONSET: If appeared just after a trauma or may have developed spontaneously and grown rapidly with severe pain - inflammatory conditions.

PAIN: Pain is an important and frequent complaint of Inflammatory swellings.

- Nature of pain: Throbbing pain suggests inflammation leading to suppuration.
- Site: localized to the site of swelling.
- Time of onset: It is important to know whether the pain preceded the swelling or the swelling preceded the pain. in case of inflammation pain always appears before swelling.

PROGRESS OF SWELLING: If the swelling decreases in size with time then it is suggestive of inflammatory swelling.

FEVER: If patient has temperature along with swelling then it is suggestive of inflammatory swelling.

PHYSICAL EXAMINATION

GENERAL EXAMINATION: General examination of the patient is carried out, raised pulse rate and temperature suggests of inflammatory swelling.

LOCAL EXAMINATION

INSEPTION: Colour sometimes gives definite hint to diagnosis, Redness suggestive of inflammatory swelling. Skin over the swelling: Tense, Glossy, Red, Oedematous, Dusky indurate skin suggests of inflammation.

PALPATION

- TEMPERATURE: Raised local temperature.
- TENDERNESS: Inflammatory swellings are mostly tender.
- SURFACE: May be smooth, lobular with smooth bump, nodular irregular and rough.

- MARGIN: Acute inflammatory swellings have ill-defined or indistinct margins
- chronic inflammatory swellings are well - defined

CONSISTENCY: It varies from soft to hard. Sometimes the swelling pits on pressure, it means that there is oedematous tissue.

FLUCTUATION: Fluctuation test is positive in progressed stage. By inception and examination of these conditions one can know the progress of the swelling and can correctly diagnose the stages and give the treatment accordingly.

PATIENT INFORMATION

Total 30 patients were taken for the study having sign and symptoms of vranashota between age group of 18 to 60 years. Vranashotha less than 10x10cm. having vrana of apakva Avastha symptoms. With no history of DM, HTN, IHD, TB, GOUT, RA, Liver Disease, K/C/O HIV and HBsAG.

Lab investigations

- CBC
- BSL

TREATMENT

No. of subjects	30
Drug	Nirgundi lepa
Dose	Depending on area
Time	Twice a day
Duration	7 days
Routine of administration	Local application
Assessment	0 th , 3 rd , 7 th day & after treatment 10 th day

Vedana(Pain)

PAIN:- (www.pubmed.ncbi.nlm.nih.gov)

A] Visual Analogous Scale

ASSESSMENT CRITERIA

PAIN	GRADE	SEVERITY
NO PAIN	GRADE 0	NONE
1 – 3 VAS SCALE	GRADE 1	MILD
>3 – 7 VAS SCALE	GRADE 2	MODERATE
>7 – 10 VAS SCALE	GRADE 3	SEVERE

2. Vrana Shotha:-Swelling

GRADE	SCORE	SEVERITY
0	0	No Swelling
1	+	Swelling upto 1 to 2.9cm
2	++	Swelling upto 3 to 6.9 cm
3	+++	Swelling upto 7 to 10 cm

3. Vivarnata – discoloration

GRADE	SCORE	DEGREE OF SEVERITY
0	0	Skin Colour
1	+	Slightly Redness
2	++	Dark Redness
3	+++	Yellowish

MATERIAL

Nirgundi patra churna

water

container

No of patient :- 30

Selection of patient –from hospital OPD/IPD

Duration of treatment:-7 days

METHODOLOGY

Preparation of Vranalepan

Fine powder of *nirgundi patra churna* are taken and mixed with *jala*. For 5gms of *Vranalepa* 5ml of *jala* is required to make it into a *Kalka* / paste form.

Application

After assement of vranashota, it was cleaned with normal saline and gauze. After drying freshly prepared *nirgundi patra churna Vranalepa* is applied over the vranashotha/swelling followed by sterile pads as absorbent layer. The dressing is secured with roller bandages without compromising the circulation. The dressing done at morning is removed in the evening and the wound is cleaned again with normal saline. This treatment regimen was used followed twice daily for a period of 10 days.

4. Ushanata:-Localized raised temperature.

GRADE	Degree of severity
0	Absent
1	Present

5. Charmacheli formation:- Granulation tissue formation.

GRADE	SCORE	DEGREE OF SEVERITY
0	0	Healthy Granulation over 75% area of wound
1	+	Healthy Granulation over 50% area of wound
2	++	Healthy Granulation over 25% area of wound
3	+++	No Granulation

6. VranaRopan:-Healing of wound.

GRADE	SCORE	HEALING PROCESS OF WOUND
0	0	Complete Epithelialized
1	+	Epithelializing
2	++	Granulation
3	+++	Sloughy

OBSERVATIONS

Parameters	Mean BT	Mean AT	Difference in means	Paired t test				
				S.D.	S.E.M.	t	p value	Remark
vedana	2.4	1.13	1.27	0.69	0.126	8.4521	<0.001	S
ushnata	2.21	1.1	1.11	1.1290	0.206	5.0137	<0.001	S
Vranashotha	2.14	0.96	1.18	0.8683	0.1575	8.042	<0.001	S
vivarnata	2.36	0.93	1.43	0.710	0.1296	11.05	<0.001	S
charmacheli	2.22	1.2	1.11	1.354	0.2357	9.25	<0.001	S
Vranaropan	2.36	0.93	1.43	0.710	0.1296	11.05	<0.001	S

RESULT

Studies indicate that the pharmacological action of *Nirgundi* found to have anti-inflammatory analgesic, antibacterial, cleaning and healing properties therefore it helps to reduce the inflammation and pain at the site of inflamed area. and also helps in cleaning and healing of wound if present.^[12] *Nirgundi* (*Vitex negundo* Linn.) is a medicine widely used for the management of inflammation. The pharmacognostic study of *Nirgundi* (*Vitex negundo* Linn.) shows the presence of phlobatannins, carbohydrates, tannins, glycosides, volatile oils, resins, balsams, flavonoids and saponins owing to its broad –spectrum of anti – microbial activity.^[13] Katu-Tikta Rasa of this drug helps in wound healing by its properties of *Kledshoshana*, *Krimighna* and *Shodhana* Karma. due to its flavonoid content it acts as a anti-inflammatory & analgesic action which is known to act through inhibition of prostaglandin biosynthesis and helps in strengthening the new generating vessels.^[14] hence these constituents In the *nirgundi* might helped in regression of signs and symptoms. Just only with the 7 days of treatment, the signs and symptoms of the inflammation decreased significantly. this study has been done on total 30 patients out of which 23 patients shows great results in treatment of vranashotha without causing any complications.

DISCUSSION

Previously various work was done on Vranashotha in Ayurveda, for eg application of various lepa, jalaukavacharan, etc. for treatment of Vranashotha. but no study has been done till date on nirgundi patra churna lepa n its shows great result in the management of Vranashotha than previously mention treatment.

In this study, *Nirgundi* played important role in maintaining local sings of vranashotha. The application of *nirgundi patra churna lepa* followed by dressing for a period of 7 days twice a daily this drug potentiates reducing all signs of inflammation related with or without wound. In this case inflammation was reduced without causing any complications. Complications like burning sensation, pain, increase in discoloration of surrounding area this complications is elevated by using This treatment. this study has been done on 30 patient without control or blinding, On the basis of this case study after seeing the result, we can roughly conclude that Ayurveda is a ray of hope in treatment of *Vranashotha* or inflammation . This therapy proves to be effective, time saving, affordable and acceptable treatment.

CONCLUSIONS

Ayurvedic treatments are effective in treating Vranashotha. Based on clinical observations, drug therapy in study with *nirgundi* has analgesic, anti-

inflammatory, and antimicrobial properties helps in reducing the signs and symptoms of the inflammation, No unwanted effects were found during treatment. All of the assessment parameters—Shoola, Sthanika Ushma, Utsedh, Vaivarnya, and tenderness—saw a significant decline in mean scores. and Because of its effectiveness and low cost, it is better to find it with administering in the treatment of vranashotha. The current study aimed to find effective treatments for *Vranashotha* using Ayurvedic procedures. Ayurveda is a great treatment technique that achieves intended goals along with Chikitsa, lifestyle and nutritional management.

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