

A CLINICAL STUDY ON THE SAMUDRASAUVARCHALADI VARTI IN THE MANAGEMENT OF NADIVRANA W.S.R. PILONIDAL SINUS

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ABSTRACT

The term *Nadi* implies the tube-like structures, and the *Nadivrana* is treated as a sinus. Sinus is a Latin word which means tract. In *Ayurveda*, this tract is called *Gati*. That entails a lot of pus invasion and a lot of borrowing. *Nadivrana*, or *sinus*, is classified as a non-healthy ulcer. The sinus is defined as a blind tract that runs from the surface into the tissue and is lined by either granulation tissue or epithelium. The presence of a foreign body (hair follicles, suturing materials, etc.), non-dependent drainage, and infection all contribute to its persistence. Suppose a person ignores an abscess or swelling in its fully suppurated stage, whether doubtful of its conditioning or even if they neglect to open a fully suppurated abscess. In that case, the pus burrows into the affected part. An abscess or swelling is named *Gati Vrana* because of the heavy infiltration of pus, and *Nadivrana* because of many recesses or cavities in its interior. There are five varieties of *Nadivrana* (sinus): *Vataja*, *Pittaja*, *Kaphaja*, *Tridoshaja*, and *Shalyaja*. Because of its non-healing quality, *Nadivrana* is classified as *dustha vrana* in classical works. The pilonidal sinus is a small tract extending from a skin opening in or near the cleft.[1] Because of its non-healing quality *Nadivrana* is classified as *dustha vrana* in classical works. The pilonidal sinus is a small tract that leads from a skin opening in or near the cleft at the top of the buttocks and contains hairs (Pilo-prefix meaning hair-Oxford dictionary). Pilonidal sinus was most common throughout the third decade. It affects men more than women, with a roughly 6:1 male-to-female ratio. There is no therapeutic therapy for *Nadivrana* in modern science [2].

Keywords: *Nadi Vrana, Pilonidal Sinus, Samudrasauvarchaladi Varti, Jatyadi tail Varti.*

INTRODUCTION

The Pilonidal sinus is an abnormal connection between the inter-gluteal cleft. It is frequently caused by a Natal cleft region abscess that bursts spontaneously or opens inadequately. It is a disease for which doctors have advocated and practised surgical techniques at various times. Even ancient writings in medical literature are replete with numerous surgical measures used to treat sickness at one point or another [3] If the object is not removed from the side of the Ulcer (*vrana*). It may break or move deep into the body tissue and cause pain with continuous, frothy, warm, blood-mixed secretions.[4] *Acharya Charak*, a concise description of etiopathologically and treatment of *vrana* is mentioned.[5] *Ashtanga Sangraha*: In *Uttarsthana* of this *Samhita nidana*, paribasha of *Nadi Vrana* description in 29, 30 and 34 *Adhyaya* in *Lakshana*, *Sadhyasadhya Chikitsa* and *Pathya* and *Apathya* of *Nadivrana* is described [6] *Madhava Nidana*: *Nadivrana* described in *Madhava-Nidana adhyaya* 45, *Nadi Nidanam* Etiology, Symptomatology, Prognosis are well defined.[7] *Chakradutta* Use of *Ksharasutra* in this *Nadi Vrana* described *Acharya Chakradutta* and Probing direction, *Ksharasutra* cutting, and needle pass (*suchi bheda*). After thread bond and use of *Kshara* in *nadi vrana*. [8] Given the pressing issues, a conservative approach was taken. *Ashtanga Hridaya* in *Uttara sthana* Chapter 30th, the utilisation of *Samudrasauvarchaladi Varti* with the properties of *Shodhana* and *Ropana*, explains the management of *Nadivrana* [9]. Nowadays, there is a need to search for new therapies. In modern medical science, diseases such as the pilonidal sinus are treated by excision, flap method, cauterisations, and cryosurgery. Etc. These surgical treatments are much more costly and need prolonged hospitalisation. The recurrence of diseases after surgery is also a cause of worry. In our *Samhitas*, many kinds of treatment are mentioned for

Nadivarna (Pilonidal Sinus). Among them, *Varti* is noted to have good curative properties.

The present study aims to find a simple drug which is cost-effective and affordable. Given the above problems, the *Ayurvedic Varti* application compound is proposed to provide a better, alternative, Safe and straightforward therapy for *Nadivarna* (Pilonidal Sinus).

MATERIAL & METHOD-

The study's heading and case study design were submitted to the university's institutional ethical committee (IEC /ACA/2021/5126–5274). The aims and objectives, significance of the study, material and method, and probable outcome of the survey were elucidated to the ethical committee, and moral permission was obtained for the conduct of the study. The trial has been registered in CTRI with reference no. CTRI/2022/10/046364.

SAMPLE SIZE – 30 Patients suffering from *Nadivrana* (Pilonidal sinus) fulfilling the inclusion criteria.

SOURCE - Patients select from the Out patents Department and patents Department of the following hospital,

Madan Mohan Malviya Government *Ayurved* College Campus Hospital, Ambamata, Udaipur.

Government *Ayurved* Hospital, Moti Chohatta Hathi Pole Udaipur.

Government *Ayurved* Hospital and Research Centre, Gulabagh, Udaipur.

Medical camp run by Madan Mohan Malviya Government *Ayurved* College

30 Patients were selected in two groups, excluding dropouts, with 15 patients in each group based on inclusion and exclusion criteria.

Method of Collection of Data

Drugs were collected from the market under the guidance of a *Dravyaguna* specialist from our college the patients attending the O.P.D. & I.P.D. attached to the hospital will be selected based on the clinical ex-

amination and documented in the specially prepared case Performa. In this research work, 30 patients will be taken into two groups of patients each. The total duration of the treatment with follow-up is 28 days. Observation will be observed scientifically, the result will be statically analysed, and progress will be assessed on regular follow-up.

1. Group 'A' – TRIAL GROUP: *Samudrasauvarchaladi Varti*
2. Group 'B' – CONTROL GROUP: *Jatayadi tail*

Inclusion Criteria

1. Age 20-60 years
2. Gender: both male and female.
3. Patients with signs and symptoms *Nadivrrana* mentioned in ayurvedic literature.
4. The length of *Nadivrrana* is less than 15mm.
5. Patients are physically fit for anaesthesia and surgical procedures.

OBJECTIVE CRITERIA-

- A. Length of the sinus/track

Exclusion Criteria:

1. History of recurrent or chronic pilonidal sinus.
2. The length of *Nadivrrana* is more than 15mm.
3. Unstable patients.
4. HIV
5. Immune deficiency syndrome.
6. Uncontrolled diabetes mellitus.
7. Immunosuppressive medications.
8. Previous participation in trial.
9. Any malignancy.

Below are the assessment criteria.

SUBJECTIVE CRITERIA. -

- Pain
- Tenderness
- Itching
- Discharge



Before treatment



Samudrasauvarchaladi varti



Application of *varti*



After Treatment

OBSERVATIONS AND RESULTS
SHOWING THE EFFECT OF THERAPY ON SUBJECTIVE PARAMETERES

NOTE: ES- Extremely Significant, VS- Very Significant, S- Significant
 NS- Non-Significant NA- Not Applicable

SYMPTOM	GROUP	MEAN SCORE			% RELIEF	S. D±	S. E±	T	P Value	SIGN
		BT	AT	BT-AT						
Pain	A	2.40	0.533	1.86	77.5	0.743	0.191	120	0.0001	ES
	B	2.06	0.933	1.13	64.5	0.516	0.133	105	0.0001	ES
Tenderness	A	1.93	0.60	1.33	68	0.617	0.159	105	0.0001	ES
	B	1.80	0.73	1.06	58	0.593	0.153	91	0.0002	ES
Discharge	A	1.33	0.20	1.13	84	0.915	0.236	55	0.0020	VS
	B	1.46	0.60	0.86	58	0.743	0.191	55	0.0020	VS
Itching	A	1.73	0.53	1.20	69	0.861	0.222	78	0.0005	ES
	B	2.06	0.53	1.53	74	0.639	0.165	105	0.0001	ES

SHOWING EFFECT OF THERAPY IN OBJECTIVE PARAMETER (Wilcoxon Matched Pairs Signed Ranks Test)

SYMPTOM	GROUP	MEAN SCORE			% RELIEF	S. D±	S. E±	T	P value	S
		BT	AT	BT-AT						
LENGTH OF SINUS TRACT	A	2.80	0.46	1.74	83	0.588	0.126	120	0.0001	ES
	B	2.86	1.0	7.41	65	0.516	0.133	120	0.0001	ES

COMPARISON OF THERAPEUTIC EFFECT ON SUBJECTIVE PARAMETERS BETWEEN GROUP-A AND GROUP-B (Mann-Whitney Test)

PARAMETER	GROUP	MEAN BT-AT	S. D±	U	P value	SIGN
Pain	A	1.73	0.703	163.50	0.0179	S
	B	1.33	0.516			
Tenderness	A	1.33	0.617	138	0.2333	NS
	B	1.067	0.593			
Discharge	A	1.133	0.9155	132.50	0.3913	NS
	B	0.8667	0.7432			
Itching	A	1.067	0.8837	152	0.826	NS
	B	1.533	0.6399			

- Comparing Group A and Group B in subjective parameters, we observed that Pain parameters showed a significant difference. Tenderness, Discharge, and Itching showed nonsignificant differences.

PARAMETER	GROUP	MEAN BT-AT	S. D±	U	P	SIGN
Length of sinus tract	A	2.13	0.7432	143	0.1234	NS
	B	1.86	0.5164			

Score showed no significant difference in its therapeutic effect.

Comparing Group A and Group B in objective parameters, we observed that the Length of sinus tract

COMPARISON OF TOTAL THERAPEUTIC EFFECT BETWEEN GROUP-A AND GROUP-B (Mann-Whitney test)

When comparing Group A and Group B in the total therapeutic effect, we observed no significant difference between their overall effect. Group A, with a total mean difference of 1.57, had a better result than Group B, with a lower total mean difference of 1.28.

OVERALL ASSESSMENT OF TREATMENT:

In Group A, 13.33% of patients were found to have complete relief (cured), 33.33% had marked improvement, 43.33% had moderate improvement, and 0% had mild improvement.

In Group B: In this group, 0% of patients were found with complete relief (cured), 13.33% showed marked improvement, 80% were found with moderate improvement, and 6.66% were found with mild improvement.

DISCUSSION

A total of 30 patients diagnosed to be suffering from *Nadivrana* (Pilonidal Sinus) were selected randomly. These were divided into groups A and B containing 15 patients in each. Group A patients were treated with the *Samudrasauvarchaladi Varti* application, and group B patients were treated with the *Jatyadi taila Varti* application. The data was collected, observations were made before and during treatment on the 7th, 14th, 21st, and 28th, and follow-up on the 36th and 42nd days. The data obtained from the results was analysed, and conclusions were drawn. Both groups were observed thoroughly regarding sex, age, religion, diet pattern, marital status, occupation, socio-economic status, family history, *Agni, Kosta, Prakriti, Vyasana*, chronicity of disease, position, or site of sinuses. In both groups, the results were obtained (within the group) using a paired 't' test for all the parameters. In group A, the drugs showed Extremely significant results in parameters such as pain, tenderness, length of tract and itching and were very substantial in discharge. In group B, the drugs showed Extremely significant results in parameters

such as pain, length of tract, tenderness, and itching and essential results in parameters such as discharge; on comparing the observed differences in values obtained for the respective parameters between both groups A and B (using unpaired 't' test), the result showed insignificance for all the parameters. The above results prove that both drugs are quite effective in relieving all the parameters. But Group A medicine, i.e. *Samudrasauvarchaladi Varti*, is more effective than Group B medicine, i.e. *Jatayadi tail*. Further, conducting clinical trials on large sample sizes with some acceptable modifications in drug, dose and durations is recommended, which may give more beneficial results.

CONCLUSION

In this regard *Acharya Vagbhata* elaborates on *Nadivrana's* treatment, *Samudrasauvarchaladi varti*, followed by *Shodhana & Ropan karma*. Previously, different kinds of Varieties have been prepared and applied. In my clinical study, I selected *Samudrasauvarchaladi varti* instead of *Tila tail* because *Samudrasauvarchaladi varti* has properties of *Putihara, Vedana Sthapana, Vrana Shodhan and Vrana Ropaka*. So, I have chosen this *Samudrasauvarchaladi varti*, whose main content is *Lavana*, who acts, i.e. *Kshara*. Because some properties. *Acharya Vagbhata* has advocated *Varti Kalpna* as a minimally invasive para-surgical treatment for Primary Pilonidal Sinus *Nadivrana*. *Varti Kalpna* not only minimises complications and recurrence but also enables the patient to resume their work quickly and with less discomfort, as well as reduces the cost of treatment. I selected *Samudrasauvarchaladi varti* have *Vrana Sodhana & Ropana, Lekhana, Sothahara, Vedana Shamaka, Varnya, lekhana, vishaghana, krimighna, Sandhanakrit, Anulomana, Garbhashaya Sodhana. Kapha vata samana property*. As per *Acharya Vagbhata*, *Varti* contains all the properties of its ingredients, and these best properties are best for healing the Pilonidal sinus. No adverse effect of therapy was seen in patients during treatment.

A new study examines the use of *Samudrasauvarchaladi varti* for treating anorectal disease.

Many varieties are indeed used in the management of Ano-rectal disease. The use of *Varti* is indicated in *Bhagandara*, ano rectal Sinus and *Arsha* but not in the sinus found in the sacrococcygeal region. It is the first ever when a is used in *Nadi Vrana* (Pilonidal sinus).

The result depends upon the time factor, which is related to the length of the track of *Nadi Vrana* (Pilonidal sinus). The wound healing process is a normal phenomenon that starts right from *Varti* application and is continuous in sequential till the formation of the healing scar. Still, the *Tila Taila*-based *Samudrasauvarchaladi varti* helped after the excision by *Lekhana* of pits in the surrounding tissues of the *Nadivrana*. Avoid the formation of unhealthy granulation tissues. - Helps heal wounds from their base. A better result is observed in Group A as follows.

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