

EFFECT OF JATYADI VARTI IN THE MANAGEMENT OF NADI VRANA W.S.R TO PILONIDAL SINUS – A CASE REPORT

Neeraj¹, K. Vasudeva Reddy², T. Udaya Kiran³, Arya S. Menon⁴

¹PG scholar ²Professor ³Professor & HOD, ⁴Assistant Professor, Dept. of Shalya Tantra, Sri Jayendra Saraswathi Ayurveda College, Chennai, Department of Ayurveda, Sri Chandrasekharendra Vishwamahavidaya, Tamil Nadu.

Corresponding Author: vohraneeraj452@gmail.com

<https://doi.org/10.46607/iamj5211082023>

(Published Online: August 2023)

Open Access

© International Ayurvedic Medical Journal, India 2023

Article Received: 03/07/2023 - Peer Reviewed: 25/07/2023 - Accepted for Publication: 10/08/2023.



ABSTRACT

Introduction (Background): Pilonidal sinus is a globally prevalent disease commonly occurring in midline gluteal cleft in young hirsute men belonging to the age group of 20 to 40 years. It is usually seen in obese people. Even though there are advanced surgical procedures that may be performed, these cause longer hospitalization, financial burden and are associated with higher recurrence and complications. Conventional Sarasota is an ideal alternative that is safe, effective and patient friendly. **Main Clinical Findings:** A 34-year-old female present with pain, pus discharge, induration, tenderness at the midline natal cleft area for 1 month. **Diagnosis:** *Nadi Vrana* (Pilonidal sinus). **Intervention:** *Jatyadi Varti* application after proper washed with *Triphala Kwatha*. **Outcome and Conclusion:** Marked improvement in sign and symptoms was observed along with complete healing of the track and healthy granulation tissue within a span of 2 weeks.

Keywords: *Nadi Vrana*, Pilonidal sinus, *Jatyadi Varti*

INTRODUCTION

Nadi Vrana refers to a cylindrical tube-like structure with blind end with full of discharge. It forms due to untreated abscess or a result of complication of surgi-

cal procedure, presence of foreign body or other infections. *Nadi Vrana* can form because of secondary infection also^[1]. *Nadi Vrana* may be compared with

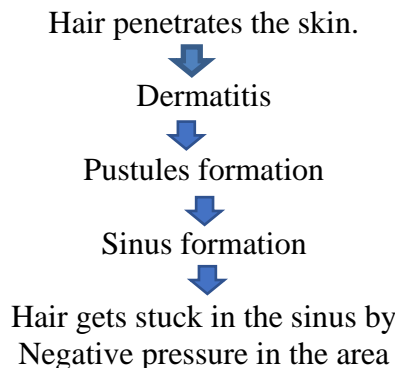
sinus or shalyaja/ *Agantuja Nadi Vrana* may be compared with pilonidal sinus. Sinus is a tube-like structure with blind end leading from surface down to the epithelial tissue and is lined by the granulation tissue [2]. Pilonidal sinus is a common disease of youngsters and drivers, which occurs in sacrococcygeal regions and forms an abscess. Clinical features of pilonidal sinus are inflammation, swelling, redness, pain and discharge with one of more opening [3]. The effective management of *Nadi Vrana* in Ayurveda is *Shodhana, Chedana, Ropana, Ksharasutra* and application of various *Vartis* [4].

Nadi Vrana is a Sanskrit compound consisting of terms, *Nadi* meaning track and *Vrana* means ulcer. Therefore, the term implies the wound that is having a track. The synonyms of *Nadi Vrana* are *Nadisthanam, Gathi, and Avaram*. According to the classification of *Vrana*, it comes under *Dushta Vrana*. According to Ayurveda causative factor of *Nadi Vrana* are inadequate drainage of *Apakwa Vrana Shopha* (immature abscess), not draining a matured *Vrana Shopha*, patient does *Ahita Ahara* and *Vihara* or due to *Shalya Nadi Vrana* occur. *Shalyaja Nadi Vrana* features *Fenil, Raktamishrita, Nirmala or Sehrujha* [5].

Nadi Vrana (Pilonidal sinus), *Vidradhi* (abscess), *Bhagandhara* (fistula in ano) originate from the seventh layer of skin [*Mamsa Dhara Kala*] [6].

Acharya Sushruta describes 8 types of *Nadis Vrana*. Pilonidal sinus comes under *Shalyaja Nadi Vrana* in this foreign body get lost in the body it quickly produces sinus associate with serosanguinous discharge and continuous pain.

Chikitsa



Acharya Describes in *Samhitas* different types of *chikitsa* and Para surgical procedure in *Nadi Vrana*.

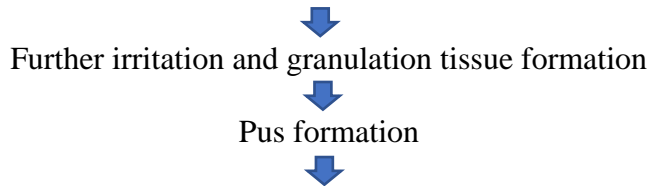
- *Shashti Upkarmas* of *Vrana chikitsa* [7]
- *Sapta Upkarma* for *Vrana chikitsa* [8]
- *Kshara Sutra* in *Nadi Vrana* [9]
- *Varti* application in *Nadi Vrana*
- *Agantuja Nadi Vrana Chikitsa* [10]

Shalya should be removed. Wound filled with *Til Kalka*, *Madhu* for cleaning or fat healing. Oil is processed with *Nagarmotha, Nisoth, Priyangu, Nagkeshar, Lodhra* paste of flower of *Dhaay*.

Pilonidal sinus

Pilus =Hair; nidus =Nest. Hence Pilonidal means a ‘nest of hair’ [11]. It is a benign disease that often takes a chronic course. Mainly affects inter gluteal furrow. Pilonidal disease was first described by Herbert Mayo in 1833 and named by Hodges in 1880 [12]. It is also called as ‘jeep disease’ [44] because it was a common condition among the drivers of American army during the Second World War. More than 80,000 US Army soldiers were hospitalized with this disease during Second World War. Clinical features tenderness, swelling inflammation, pus discharge associate with continuous pain. The major complication is recurrence which may be early or late. Early recurrence due to false identification of track. Late recurrence is always due to the secondary bacterial infection of residual debris which was not completely removed during the surgery. Chronic pilonidal sinus can occasionally cause sacral osteomyelitis, rarely Meningitis when infection occurs sinus to the spinal cord.

Pilonidal sinus pathology



Multiple discharge sinus Cause of recurrence is due to improper removal of pus loculi, entry of new tuft of hair, breakage of scar, overlooking of existing diverticulum. The contemporary surgical interventions and their recurrence rates have been cited in Table 1

Table 1 Available Modern surgery and their recurrences rates

Nonsurgical	Injection sclerosing agent ^[13]	9-27% recurrence rate
	Fibrin glue ^[14]	More recurrence rate
	Cryosurgery ^[15]	20%
	Electro cauterization ^[16]	11%
Surgical	Drainage with or without excision ^[17]	
	Karydakis flap ^[18]	1.3%
	Bascom ^[19]	4%
Reconstruction technique by transformation flap	Z plasty	1.65%
	V-Y advance flap	5%
	Gluteal Maximus mucocutaneous flap	10%
	Rhomboid or limber flap	High recurrence rate

CASE REPORT

A 34-year company worker female came to our OPD with complaint of severe pain and pus discharge seen at the natal cleft area for 1 month. The patient was uncomfortable sitting and walking due to pain.

Ethical consideration – NIL

Medical history and surgical history -nil

N/H/O- DM, CKD, HTN.

Gynecological history – Regular Menstrual cycle (28 days), Dysmenorrhea.

Family history – H/O similar illness – nil

H/O other illness – Husband -

HTN

Lifestyle and genetic information – Obese structure (weight -72kg)

an Non vegetari-

Unhygienic Sedentary life-

style

Intervention – No past intervention

Therapies including self-care – Apply Betadine ointment and analgesics.

Physical examination –

Personal history

Ahara - Non vegetarian

Vihara – Sedentary

Nidra - Ati - Divaswapna

Vyasana - None

Mala Pravrutti - Niraama

Mutra Pravrutti -Prakrita

Vyavasaya – Sedentary /sitting.

Recent history of long travel – Absent

General Examination:

BP- 110/80mmhg

R/R – 16/min

Weight -72kg

Temperature - 98.7 F

Systemic Examination:

R.S: NAD /clear chest

NAD

C.V.S: NAD

C.N.S: NAD

NAD

Local examination

Inspection

Urinary:

Genital: NAD

G.I System:

- Sinus opening seen at the sacrococcygeal region at midline pit.
- Profuse Pus collection inside the tract
- Black Discoloration of skin of area

Palpation

- Tenderness present
- Warmness present
- Induration present
- Probing was done to assess the length of the tract & direction of the tract. It was 3cm towards the anus.

Information about substance abuse – Nil

Objectives –

To evaluate the effect of Jatyadi Varti in the management of Nadi Vrana w.s.r to Pilonidal Sinus.

Main medical problem – Nadi Vrana (Pilonidal Sinus)

Dashvidha Pareeksha

1. Prakriti - Vat pitta
2. Vikruthi - Dosha – Tridosha
Dushya -Twak, Mamsa, Sira, Snayu, Sandhi, Medas and Rakta
3. Sara - Mamsa Sara
4. Samhanana - Avara

5. Pramana - Pravara
6. Satwa - Madhyama
7. Satmya - Sarva satmya
8. Ahara Shakti - Abhyavaharana - Madhyama
Jarana - Madhyama
9. Vyayama Shakti - Avara
10. Vayah - Madhyama

Ashtavidh Pareeksha

- Nadi - Vata Pitta Shabda -
Vishesha
Mutra - Prakrita Sparsha -
Samshitoshna
Mala -Nirama Druk - Prakrita
Jihwa -Nirama Aakriti - Sihaulya

Sroto Pareeksha / Srotas Dushti:

- Raktavaha Strotas (Vidradhi)
- Mamsavaha Srotas (Putimaansa)

Jatyadi Varti ingredients have Shodhana, Ropana, Lekhana, Vedanasthapana, wound debridement and Tridosha properties. Drugs Botanical name, part used, and their action have been cited in Table No. 2.

Table No. 2: Drug Detail Jatyadi Varti - Contents and their action

S.no.	Drugs	Botanical Name	Action	Part Used
1.	Jati	Jasminum officinale	Tridosahara (reduce Tridosha), Vranashodhan (Wound debridement), Vranaropana (healing of wound), Kushthaghna (reduce skin disorder), Kandughna (reduce itching)	Leaves
2.	Arka	Calotropis procera +	Kaphavatashamaka (reduce Kapha & Vata dosha), Vranashodhan (cleaning of wound), Shothahara (reduce inflammation), Vedanasthapana (analgesic)	Root
3.	Aaragvadha	Cassia fistula	Vatapittashamaka (reduce Vata & Pitta dosha), Shothahara (reduce inflammation), Dahaprashamana (decrease burning sensation), Kushthaghna (reduce skin disorder)	Leaves
4.	Karanja	Pongamia pinna-ta	Kaphavatashamaka (reduce Kapha & Vata dosha), Vranaropana (healing of wound), Vedanasthapana (analgesic), Jantughna (reduce infection)	Seed
5.	Chitraka	Plumbago zeylanica	Kaphavatashamaka (reduce Kapha & Vata dosha), Lekhana (scrapping), Deepana-Pachana (increase appetite-digestion)	Root
6.	Snuhi	Euphorbia neri-folia	Kaphavatashamaka (reduce Kapha & Vata dosha), Shothahara (Analgesic), Lekhana (scrapping)	
7.	Danti	Beliospermum montanum	Kaphapittashamaka (reduce kapha & pitta dosha), Vedanasthapana (analgesic), Vranashodhan (cleanses the wounds)	Root
8.	Yava Kshara	Hardeum vulgare	Sharp, hot, corrosive in nature helps in Lekhana (scrapping) Chedana (exicise) of dead cells & Vranaropana (healing of wound).	
9.	Saindhava Lavana	Sodium chloride	Exfoliates the dead skin cells and protects the natural layer of skin. Also strengthens the skin tissue	
10.	Sauvarchala Lavana	-	Act as Shoolaprashamana (analgesic)	

Method of preparation of drug (Jatyadi Varti) [20]

As required quantity of gauze piece wick will be prepared with 9 ingredients of Jatyadi Varti mixed with Sanuhi latex. Length of Jatyadi Varti depends upon the length of sinus tract.



Figure 1: Prepared Jatyadi Varti

STERLIZATION PROCESS OF JATYADI VARTI

- Jatyadi Varti kept it into the sterile gauze pad and put it into surgical dressing drum.
- Autoclave for 45 minutes.
- Remove with the help of sterile gloves and store in an airtight container.

Solution of described problem – Jatyadi Varti Application

Patient was having RBS value 243mg/dl Nishakathkadi Kasayam advised for 2 weeks. For Reducing Inflammation, Infection some internal medications also prescribed. The internal medication treatment has been cited in Table 3.

Table No. 3: Treatment (Internal medication)

<p>Internal medication (2 weeks)</p>	<ul style="list-style-type: none"> ✓ Nishakathkadi Kasayam 15ml morning and night before food ✓ Mahamanjithadi Kasayam 15ml morning and night before food ✓ Guggulu Panchpala Choornam with hot water 1tsp morning and night after food. ✓ Triphala Choornam 1 tablespoon with hot water at bed-time.
---	---

External application: Jatyadi Varti

Poorva Karma

Informed written consent was taken. Prepare minor OT and instrument. Preparation of the part of the patient Pradhan karma

Under all aseptic conditions the prone position was given to the patient. The part was exposed and painted 3 times by using sponge holding forceps and sterile gauze piece soaked in antiseptic solution. The part was covered with sterile sheet. With the help of a 5ml syringe washed the sinus track with Triphala Kwatha. Probing was done to assess the length of the tract. Then Jatyadi Varti application with the help of the Artery forceps into the track.



Figure 2: Wash with *Triphala Kwatha*

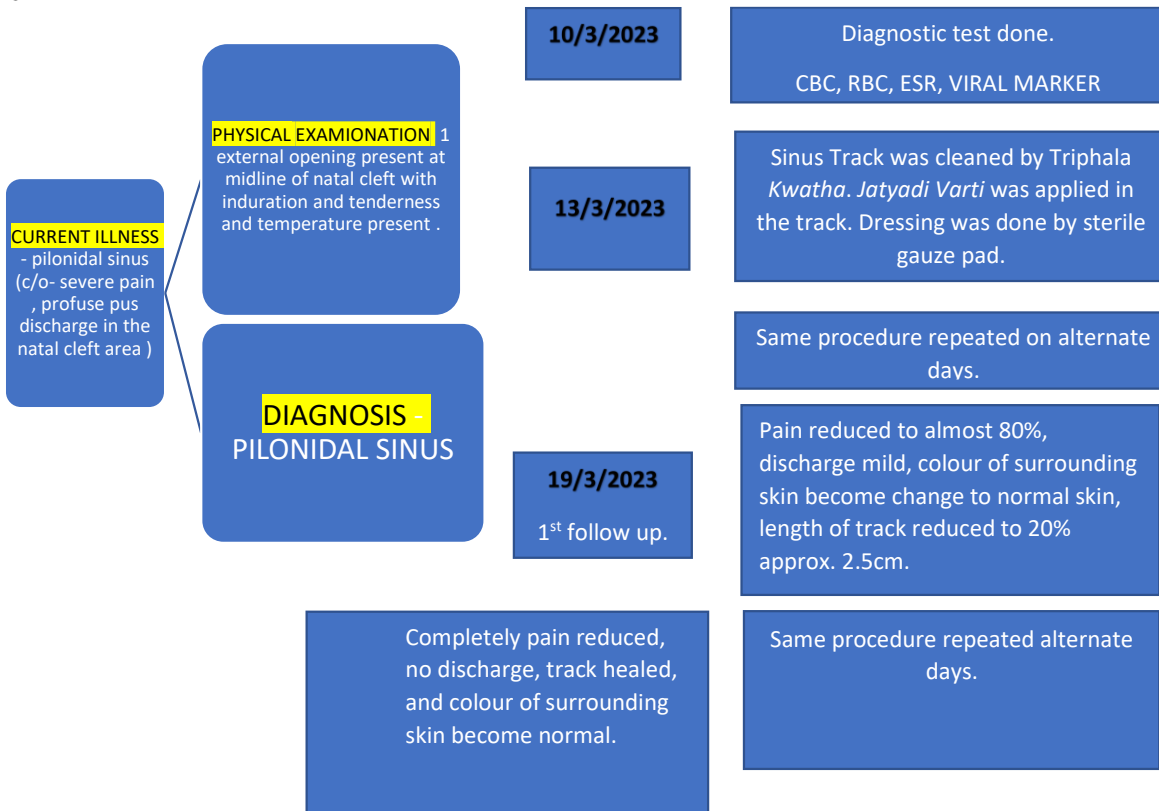


Figure 3: *Jatyadi Varti* Application

Paschata Karma

Dressing was done with all aseptic measures. All vitals were recorded.

Timeline



Needed Investigations (CBC, ESR, RBS, and VIRAL MARKER) was done. RBS value Raised observed. The Diagnostic focus and assessment have been cited Table 4

Table 4: Diagnostic focus and Assessment

Specimen	Name of the test	Observed value
Blood (CBC)	Hb%	10.7gm/dl
	T.C	9.01 10 ³ UL
	D.C	N-67.8% L-26.9% M-6.4% E-2.2% B-0.5%

	ESR	24MM IN 1 st hr.
Blood Sugar	RBS	243mg/dl
Viral markers	HIV	Negative
	HbSAg	Negative

Therapeutic focus and assessment

Pain assessment (Vedana)

- 0 – no pain
- 1 - Mild pain persisting for 2-6 hrs. Pt. slightly uncomfortable
- 2 – Moderate pain, persisting 6-12 hrs. Difficulty walking and sitting
- 3 – Severe pain, persisting more than 12 hrs. Unable to walk.

Vrana (Discoloration)

- 0 – *Twak Sama Varna*
- 1 – *Kapota Varna*
- 2 – *Jihwatalaba Varna*
- 3 - *Krishna Varna*

Srava (Discharge)

- 0 – no discharge
- 1 – If *Varna* wets 4x4 cm gauze piece (mild)
- 2 – If *Varna* wets 6x6 cm gauze piece (moderate)

3 – If *Varna* wets more than 6x6 cm gauze piece (profuse)

Length of sinus tract

- 0 - healed
- 1 – Reduced by 80%
- 2 – Reduced by 50%
- 3 – Reduced by 20%

Varti dissolves on 3rd day pain, discoloration of skin and track was persisting changes was only seen in discharge, induration and tenderness still present.

7th day got 1st follow up 20% pain reduce, mild discharge present, healing of tract was improving day by day and seen changes in discoloration of skin because of unhealthy granulation tissue become healthy one . 14th day got 2nd follow up the complete track was healed with external granulation tissue. The follow up and outcome of Jatyadi *Varti* application have been cited Table 5.

Table 5: Follow up and Outcome.

Day	Date	Pain	Vana	Sarva	Length
0 day	10-3-2023	Grade 3	Grade 3	Grade 2	3cm
1st day	13-3-2023	Grade 3	Grade 3	Grade 2	3cm
3rd day	15-3-2023	Grade 3	Grade 3	Grade 1	3cm
5th day	17-3-2023	Grade 2	Grade 2	Grade 1	Grade 3 20% reduce
7th day 1st follow up	19-3-2023	Grade 1	Grade 2	Grade 1	Grade 3
9th day	21-3-2023	Grade 1	Grade 1	Grade 1	Grade 2 50% reduce. Approx. 1.5cm
11th day	23-3-2023	Grade 1	Grade 1	Grade 0	Grade 1 Reduce 80% 0.5cm approx.
13th day	25-3-2023	Grade 0	Grade 0	Grade 0	Grade 0 Approx. healed
14th day 2nd follow up	26-3-2023	Grade 0 No pain	Grade 0	Grade 0	Healed tract



Figure 4: Before treatment (Day 0)



Figure 5: Day 1



Figure 6 : Day 7 (1st follow up)



Figure 7: Day 14 (2nd follow up)

DISCUSSION

Pilonidal sinus is a chronic inflammatory and track in natal cleft considered as an acute, congenital or acquired disease. A persistent midline pit occurs from birth due to defects in embryogenic fusion in congenital type get infected due to desquamated debris of epithelial those having lack of hygiene. In deep natal cleft obesity, excess hair, sweating create favorable atmosphere for maceration of skin moisture can fill a stretched hair follicle, help to create low oxygen environment to promote growth of anaerobic bacteria. Hair continues to break off, repeated infection or friction get in the natal cleft causing dermatitis. In this present case *Jatyadi Varti* was applied for better cure. *Jatyadi Varti* ingredient having antimicrobial, anti-fungal^[21], antibacterial, anti-inflammatory, antioxidant^[22], antiseptic and wound healing, wound debridement, *Shodhana* and *Ropana* properties. The ingredient of *Varti* goes deep into the track and due to

Above mentioned properties of the non-healing sinus convert into healed sinus in minimum time.

CONCLUSION

Jatyadi Varti is easy to prepare, cost effective, minimal invasive techniques with promote the healthy healing of tissue in minimum time with no cutting of track, no scar formation left. The recurrence rate is almost nil.

REFERENCES

1. Sushrut Samhita, Nidana Sthana, VisarpaNadistanaroga10/10. Available from: <http://niimh.nic.in/ebooks/esushruta> (Accessed on 10 May 2023)
2. S. Das. A Concise Textbook of Surgery.; 11; 131 3rd ed. Calcutta: dr s days; 2001.
3. Sriram BM. SRB Manual of surgery. 25; 958; 6th ed. new Delhi: Jaypee brother medical publisher (P) LTD; 2019.

4. Sushrut Samhita, Chikitsasthana, Visarpa *Nadi* Stanaroga chikitsa; 17/34. Available from: <http://niimh.nic.in/ebooks/esushruta> (Accessed on 10 May 2023)
5. Sushrut Samhita, Nidanasthana, Visarpa *Nadi* Stanaroga 10/14. Available from: <http://niimh.nic.in/ebooks/esushruta> (Accessed on 10 May 2023)
6. Sushrut Samhita, Sharirsthana, Grabhavyakaransariram,4/4. Available from: <http://niimh.nic.in/ebooks/esushruta> (Accessed on 10 May 2023)
7. Sushrut Samhita, Chikitsasthana, Dvivraniyachikitsam, 1/8. Available from: <http://niimh.nic.in/ebooks/esushruta> (Accessed on 10 May 2023)
8. Sushrut Samhita, Sutrasthana, Amapakvesiyaadhaya,17/22. Available from: <http://niimh.nic.in/ebooks/esushruta> (Accessed on 10 May 2023)
9. Sushrut Samhita, Chikitsasthana, VisarpaNadistanarogchikitsa,17/32. Available from: <http://niimh.nic.in/ebooks/esushruta> (Accessed on 10 May 2023)
10. Sushrut Samhita, Chikitsasthana, Visarpa *Nadi* Stanaroga chikitsa ,17/27. Available from: <http://niimh.nic.in/ebooks/esushruta> (Accessed on 10 May 2023)
11. Sriram BM. SRB Manual of surgery.;25:967; 6th ed. new Delhi: Jaypee brother medical publisher (P) LTD; 2019.
12. T.L. Hull and J. Wu. Pilonidal Disease Surgical Clinics of North America.; 2002, 82(6) Pp.1169-1185.
13. Stainsby G. Et Al. “Phenol Treatment of Pilonidal Sinuses of the Natal Cleft”. British Journal of Surgery. July 1989; Vol-76(7): P. No 729-730.
14. Karydakias G.E “New Approach to the Problem of Pilonidal Sinus”. Lancet. 1973; Vol-29(7843): P. No .1414-1415.
15. Gupta RL. “Recent Advances in Surgeries -7”1st Edition, Ch 4. The Pilonidal Disease D.P. Sanan. P. No 132-137.
16. Shafik A. “Electrocauterization in the Treatment of Pilonidal Sinus”. International Surgery .1996; Vol-81: P. No 83.
17. Armstrong JH, et al. “Pilonidal Sinus Disease. The Conservative Approach”. Achieves Of Surgery. September 1994; Vol-129: P. No 914-919.
18. Karydakias G.E. “New Approach to the Problem of Pilonidal Sinus”. Lancet. 1973; Vol-29(7843): P. No .1414-1415.
19. Bascom J. “Pilonidal Disease: Long Term Result of Follicle Removal”. Disease of the Colon and Rectum. 1983; Vol-26: P. No 800-807.
20. Brahmasankara Misra, Ambikadatta Shastri. Bhaisajyaratnavali, Govindadas. 50/11.
21. Kadhim MJ, Mohammed GJ. In Vitro Antibacterial, Antifungal, And Phytochemical Analysis of Methanolic Extract of Fruit Cassia Fistula. Oriental Journal of Chemistry Issn: 0970-020x, 2016, Vol.32.
22. Sahu R, Ved Arya P, Joshi R, Muskan C. Pharmacological and Therapeutic Properties of Jasminum Officinale L: A Review. Indian Journal of Ecology (2022) (Si):1122-1128. Manuscript Number: 3640.

Source of Support: Nil

Conflict of Interest: None Declared

How to cite this URL: Neeraj et al: Effect of Jatyadi Varti in the Management of Nadi Vrana w.s.r to Pilonidal Sinus – A Case Report. International Ayurvedic Medical Journal {online} 2023 {cited August 2023} Available from: http://www.iamj.in/posts/images/upload/2124_2132.pdf