

ORIGINAL RESEARCH ARTICLE

Effect of *Sarivadi* Gel in Post Fissurectomy Wound Management

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ABSTRACT

Fissure means a crack. It is a longitudinal crack in the long axis of the lower anal canal, but in reality, it is a true ulcer of the skin of the wall of the anal canal. Anal fissure may be acute or chronic. Chronic anal fissures, one of the most painful conditions, need surgical intervention in form of Fissurectomy¹, which is considered to be the gold standard method of management of chronic fissures. For better outcomes these Fissurectomy wounds need care.

In this study total 10 patients of fissurectomy were selected from OPD and *Sarivadi* gel use for dressing locally in each patient for 7 days daily. Patients were assessed on following parameters such as pain, burning sensation, Granulation, and discharge through wound. The significant improvement was observed in sign and symptom after treatment.

Key Words *Fissurectomy, Sarivadi Gel, Fissure in Ano*

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INTRODUCTION

Anorectal surgery is an indispensable part of surgical practice in Ayurveda. Post-operative wound care for Anorectal surgeries differs from any other surgical wound. The reasons behind it the wound, being in a sensitive place, makes it inconvenient for the patients to do their day-to-day activities. Defecation irritates, excruciating pain along with a burning sensation. Fecal material contaminates the wound further. Unlike wounds in other places, the dressing of these wounds has to be changed frequently. Chronic anal fissures, one of the most painful conditions,

need surgical intervention in form of Fissurectomy¹, which is considered to be the gold standard method of management of chronic fissures. For better outcomes these Fissurectomy wounds need care. This wound causes post-operative pain, burning & irritation in the anal region. Post-operative anorectal pain is unavoidable and it needs treatment. A feeling of comfort (without pain) and good wound healing are desired by every individual.

In *Dravya sangrhaniam Adhyayam* of *Sushrut Samhita*, Acharya *Sushrut* explains *Gana* which deals with the general classification of drugs according to their therapeutically properties. This

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gana can be use in single *dravya* or group of *dravyas* for specific disease. *Acharya Sushrut* explains *Sarivadi gana*. *Sariva*, *Madahuka*, *Chandana*, *Kuchandana*, *Padmaka*, *Kashamariphala*, *Madhuka-Pushpa* and *Ushira* collectively called as *sarivadi gana*. *Sushruta* explained *sarivadi gana* as *Vesheshad Dahanashana*²

सरिवामधुकचन्दनकुचन्दनपद्मकाशमरीफलमधूकपुष्पाण्यु
शीरं चेति ॥३९॥

सारिवादिः पिपासाघ्नो रक्तपित्तहरो गणः । पित्तज्वरप्रशमनो
विशेषादाहनाशन ॥४०॥

(सु. सु. ३८\३९-४०)

At end of *addhya sushruta* explain this *gana* can be used for *lepana*, *kashaya* preparation, tail preparation, *panaka* preparation according to *Vaidhyabudhi*⁵.

एभिर्लेपन्कषायांश्च तैलं सीषि पानकान् ।

प्रविभज्य यथान्यायं कुर्वीत मतिमान् भिषक् ॥८०॥

(सुश्रुत सु. ३८\८०)

Sarivadi gana used in the form of gel as it is easy to apply *Sarivadi Gana* gel has been used as *lepana* and results in the post-fissurectomy wound as *Dahanashan* is assessed.

Thus, to overcome all these problems, the present study is done to evolve an effective treatment by Ayurvedic approach in the post-operative wound care in anorectal cases. Hence in this study an attempted shows the efficacy of *Sarivadi gel* which is *Vedanashaman* and *Dahanashan*.

AIMS AND OBJECTIVES

- To study the effect of *sarivadi gel* in post fissurectomy wound management.

- To Study of efficacy of *Sarivadi gel* as pain and burning sensation post Fissurectomy Wound care

METHODOLOGY

Sample Size – 10 Patients

Inclusion criteria

- Adult of any gender
- Post-operative Fissurectomy Wound

Exclusion criteria

- Immunocompromised patients.
- Secondary Infected wound
- Uncontrolled Diabetes mellitus

CRITERIA OF ASSESSMENT:

Table 1 Pain

Pain	
Symptoms	Score
No Pain	0
Bearable Pain	1
Pain relived with sitz bath	2
More severe Pain, need analgesics	3

Table 2 Burning Sensation

Burning Sensation	
Symptoms	Score
No burning Sensation	0
Burning sensation present but bearable	1
Burning sensation present, need local anesthetic	2
Severe burning sensation	3

Table 3 Granulation

Granulation	
Symptoms	Score
Pink	0
Bright red	1
Slough (yellowish base)	2
Eschar (blackish)	3

MATERIALS AND METHODS

Preparation of gel³

Gels are semisolid system consisting of dispersion of small or large molecules in an

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aqueous liquid vehicle rendered jellylike by the addition of a gelling agent. Among the gelling agents used are synthetic macromolecules, such as carbomer 934; cellulose derivatives, such as carboxymethylcellulose or hydroxypropyl methylcellulose; and natural gumes, such as tragacanth. Carbomers are high-molecular-weight water-soluble polymers of acrylic acid cross-linked with allyl ethers of sucrose and/or pentaerythritol. Their viscosity depends on their polymeric composition. The NF contains monographs for six such polymers, carbomers 910, 934, 934P, 940, 941, and 1342. They are used as gelling agents at concentrations of 0.5% to 2.0% in water. Carbomer 940 yields the highest viscosity, between 40,000 and 60,000 centipoises as a 0.5% aqueous dispersion.

Types of gel

- Single phase gels are gels in which the macromolecules are uniformly distributed throughout a liquid with no apparent boundaries between the dispersed macromolecules and the liquid.
- Two phase a gel mass consisting of floccules of small distinct particles is termed as two-phase system, often referred to as a magma.

Medicated gels may be prepared for administration by various routes including the skin, the eye, the nose, the vagina, and the skin.

PREPARATION OF SARIVADI KWATHA ⁴

पनीयं षोडशगुणं क्षुण्णे द्रव्यपले क्षिपेत।

मृत्पात्रे काथयेद् ग्राह्यमष्टमांशावशेषितम् ॥

शा.म.ख. (१/२)

Here kwatha is the liquid preparation obtained by boiling 1 part of dravya in along with 16 parts of distilled water which is reduced to 1/8 th part and filtered, the filtrate is taken as kwatha as seen in table no 5..

Table 4 Discharge

Discharge	
Symptoms	Score
Absent	0
Present	1

Table 5 Countians of Sarivadi kwatha

Sr.no	DRAVYA	PROPORTION
1	<i>Sariva</i>	One Part
2	<i>Madahuka</i>	One Part
3	<i>Chandana</i>	One Part
4	<i>Raktchandana.</i>	One Part
5	<i>Padmaka</i>	One Part
6	<i>Kashamari Phala</i>	One Part
7	<i>Madhuka Pushpa</i>	One Part
8	<i>Ushira</i>	One Part
9	Distilled water	sixteen times of <i>dravya</i>

The prepared 1000ml of Sarivadi Kwath was taken in to the planetary mixer of 2 L capacity having maximum speed of 3000 rpm as seen in **Figure no 1** and stirring was started. In vessel 2% of Carbomer (20gm) was added subsequently as seen in **Figure no2**. The mixture was stirred at speed of 300 rpm for initial 15 minute gradually increased after every 5 minutes as seen in **Figure no 3**. after 2 hours of continuous starring, a homogenous mixture was obtained as seen in **Figure no 4**, stirring was stopped and 1% of methyl paraben 2gm and propyl paraben 0.5 gm was added and trietatahnoalamine 1.65% (165ml) was added and again stirred at 3000 rpm for 5 minutes all contain mentioned in **table no 06**. Then gel filled in empty sterile container.

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Table 6 Sarivadhi Gel Preparation compositions⁵

1. Carbomer 934	2gm
2. Methyl paraben	0.2gm
3. Propyl paraben	0.05gm
4. Triethanolamine	1.65ml
5. Sarivadi kwath	100ml

The prepared 1000ml of Sarivadi Kwath was taken in to the planetary mixer of 2 L capacity having maximum speed of 3000 rpm as seen in **Figure no 1** and stirring was started. In vessel 2% of Carbomer (20gm) was added subsequently as seen in **Figure no2**. The mixture was stirred at speed of 300 rpm for initial 15 minute gradually increased after every 5 minutes as seen in **Figure no 3**. after 2 hours of continuous stirring, a homogenous mixture was obtained as seen in **Figure no 4**, stirring was stopped and 1% of methyl paraben 2gm and propyl paraben 0.5 gm was added and trietatahnoalamine1.65% (165ml) was added and again stirred at 3000 rpm for 5 minutes all contain mentioned in **table no 06**. Then gel filled in empty sterile container.

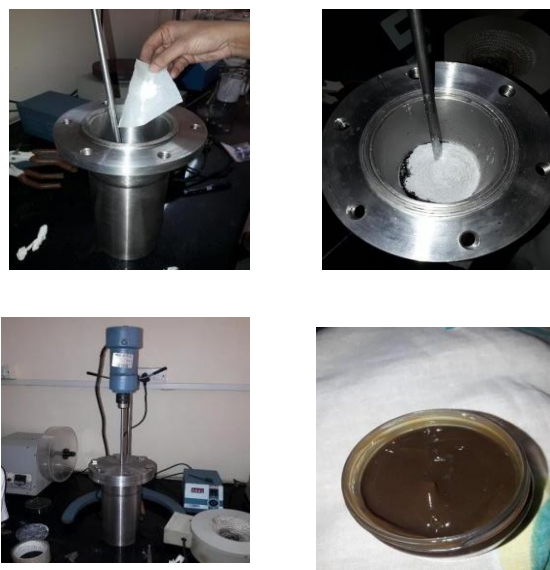


Figure 1-4 Preparation pictures of sarivadi Gel

PROCEDURE

- Wound was cleaned with normal saline by gauze piece as seen in **Figure no 5** & dressed with Sarivadi gel
- Regular post-operative care was followed
- Daily dressing with sarivadi gel as seen in **Figure 6 and 7**



Figure 5-7 Procedure

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DISCUSSION

In the clinical study 15 patients were taken. The data collected observed,

summarized and statistically presented, The results of the study are given in Table no 7 and 8.

Table 7 Mater Chart of 10 patients with assessment scoring before and after treatment

Patients	Pain		Burning sensation		Granulation		Discharge	
	B.T	A.T	B.T	A.T	B.T	A.T	B.T	A.T
1	3	1	3	0	2	0	1	0
2	3	1	2	1	2	0	1	0
3	3	1	2	1	2	1	1	0
4	2	0	1	0	1	0	0	0
5	3	1	2	1	2	0	1	0
6	2	0	3	1	2	1	1	0
7	3	1	2	1	2	0	1	0
8	3	0	2	1	1	0	1	0
9	3	1	2	1	2	0	1	1
10	3	0	3	2	2	1	1	0
Total	28	06	22	09	18	03	9	8

Table 8 Symptoms and their relief in percentage

Serial	Symptoms	Total Score			Relief percentage
		B.T	A.T	Difference	
1	Pain	28	06	22	78.57 %
2	Burning Sensation	22	09	13	59.09 %
3	Granulation	18	03	15	83.33 %
4	Discharge	9	1	8	88.88 %

RESULTS

- 78.57 % relief was observed from Pain
- 59.09 % relief was observed from Burning Sensation
- 83.33 % results were observed in Granulation
- 88.88 % relief was observed from Discharge

CONCLUSION

Sarivadi gel is effective in the management of post fissurectomy wound management but time demands to work on more patients and detail research on post fissurectomy wound management.

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REFERENCES

1. “Anal Fissure-Basic-Epidemiology”. Best practice. British Medical Journal. 23 April 2012. Retrived, 30 June 2012.
2. dr. Keval Krushana Thakral, Sushruta Samhita Of Maharsi Sushruta, Chaukhamba Oriyanatalia, Varanasi. Reprint 2016, Sutra Sthana 38/39,40. Page no.422.
3. Remington The Science And Practice Of Pharmacy 21st Edition 2005, Published by Wolters Kluwer (India) Pvt.Ltd.,New Delhi. P770.
4. Sharangdhar Samhita by Sharangdhra Translated In English by prof. K. R. Srikantha Murthy,Chukhambha Orientalia,Reprint Edition 2012 Madhyam Khanda,page no 56.
5. Remington the Science And Practice Of Pharmacy 21st Edition 2005, Published By Wolters Kluwer(India) Pvt. Ltd., New Delhi. P770-773.