

**A CLINICAL EVALUATION OF GOMUTRA KSHARA COATED SUTRA IN THE MANAGEMENT OF BHAGANDARA (FISTULA- IN -ANO)**

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**ABSTRACT**

During ksharsutra therapy patients suffers some discomfort due to presence of apamarg kshar & snuhi keehra like pain, burning sensation, inflammation and itching .To avoid this situation the scholar has proposed the use of Gomutra kshar replacing apamarg kahar. 20 patients selected in two groups.10 patients treated with apamarg kshar sutra and 10 patients treated with Gomutra kshar sutra. At the end of the study it was found that Gomutra kshar sutra is more competent and effective than apamarg kshar sutra in the management of Bhagandara (Fistula-in-ano).

**Keywords:** Bhagandara, Gomutra kshar sutra, Unit cutting time

**INTRODUCTION**

From the onset of civilization the humanity suffered from various diseases and among the many an uncomfortable condition, Bhagandara was the one of the most important one. The disease is widely prevalent and numerous options are being practiced for its management. However none of them could provide solace to the suffering mankind.

वातव्याधिः प्रमेहश्च कुष्ठमर्शो भगन्दरम् ।

अश्मरी मूढगर्भश्च तथैवोदरमष्टमम् ॥

अप्तावेते प्रकृत्यैव दुश्चिकित्स्याः महागदाः ।

(सु.सू. 33/4-5)

The Bhagandara is one among the eight troubles some disease described in Ayurveda. Bhagandara is a disease that exists since the early days of evaluation of the mankind. In India the disease is known from very early days.

Fistula-in- Ano is a disease of ano rectum and form quite a large share of all the disease of this part of the body. It is characterized by single or multiple sinuses with purulent discharge in the perianal area. It becomes a notorious disease due to its anatomical situation and it is a disease of guda which is one of the most marms, in which recurrence of fistula in ano occurs even with skilled surgeons. In Ayurveda classics it is known as Bhagandara and is included in eight mahagada by Acharya sushruta.

ते तु गुद भगवस्ति प्रदेशदारणाश्च भगन्दरा इत्युच्यन्ते ।

अपक्वा पिडकाः पक्वास्तु भगन्दराः ॥

(सु.नि. 4/4)

The literary meaning of Bhagandara is 'Daran' like Bhag (yoni), Guda and Vasti area. It clearly indicates that bursting of a pakva pidika results into daran of that area and communicates with Bhag (yoni), guda or vasti with surrounding skin surface and is term as Bhagandara.

**Need and Significance of Present Research Work:**

It is quite common for a patient to seek treatment of this disease through surgical intervention because this is only alternative known to the modern medical practitioners and the public in general.

In modern surgery the only form of treatment of an anal fistula that affords any reliable prospect of cure is operation.The surgeries of anal fistula have an unenviable reputation for subsequent

recurrences faecal soiling, imperfect control of flatus, chronic wound healing, more hospitalization etc. These are few operations in

surgery where the quality of the result is so much influenced by the technical skill of the surgeon.

John Goligher has reported that recurrence rate in the fistulectomy is about 8%. Besides that 12% of the patients complained of inadequate control of faeces, 16% of imperfect control of flatus and 24% of frequent soiling of their underclothes.

Man always strives for the best that is why the advancements and research has become a continuous process.Kshara-sutra will definitely play a key role in the development of Shalya Tantra branch. Kshara Sutra is a unique and an established procedure for the management of Bhagandara in ayurveda.

It has brought revolution in the Indian system of surgery. Kshara Sutra ligation therapy in the management of Fistula-in-ano has proved boon for the humanity. It can effectively Substitutes the modern surgical procedure, because of following facts -

Economical.

Early ambulation of patient even after the procedure as it is a kind of minimal invasive procedure.

Less discomfort.

No damage of sphincter and soft tissues in anal region.

No need of long duration hospitalization.

Other complications of the operation that mentioned priority has never been reported in K.S. therapy.

In kshara-sutra therapy the cutting and healing of fistulous track takes simultaneously.

During ksharsutra therapy patients suffers some discomfort due to presence of apamarg kshar & snuhi keehra like pain, burning sensation, inflammation and itching .To avoid this situation the scholar has proposed the use of Gomutra kshar replacing apamarg kahar.

**AIMS AND OBJECTS**

To study fundamental principal describe by the Sushrut Samhita in the management of Bhagandara.

Comparative study of Apamarga kshara sutra and Gomutra kshara sutra after ligation in the management of Fistula-in-ano.

Taming the symptoms like pain, burning sensation, and discharge. Itching and Tenderness in management of Fistula-in-ano.

To compare the healing status in both group.

To provide the safe, painless & economical & without recurrence management of Fistula-in-ano.

**MATERIALS AND METHODS**

**The contents of standard- Kshara sutra:**

Snuhi ksheer (Euphorbia nerifolia)  
Apamarg kshara (Achyranthus aspera)  
Haridra (Curcuma longa)

**The contents of Gomutra- Kshara sutra:**

Snuhi ksheer (Euphorbia nerifolia)  
Gomutra- Kshara (Cow urine kshara)  
Haridra (Curcuma longa)

**Selection of patient**

Patients suffering from fistula in ano were selected from O.P.D.of Anorectal unit of deptt. of Shalya, NIA Hospital, Jaipur and examined thoroughly as per the case that specially prepared for this dissertation.

**Grouping of the patient**

For clinical trial 20 patients will be grouped in two groups of 10 patients each.

Group A	-	Apamarga k.s.ligated
Group B	-	Gomutra k.s. ligated

**Inclusion criteria**

Patients diagnosed to have fistula is ano were randomly selected, irrespective of sex, chronicity, prakriiti, length of track,, type of fistula etc. and were in between the age group of 16 to 70 years.

**Exclusion criteria**

Patients with uncontrolled diabetes mellitus, tuberculosis, biopsy of the track suggestive of malignancy, children's, recurrent cases of fistula in ano, fistula secondary to other systemic disease like ostiomyelitis of coccyx, Ulcerative colitis were excluded from the study.

**Criteria of assessment**

Efficacy of ksharsutra were assessed on the basis of following symptoms and sign -

- Pain
- Burning sensation
- Inflammation
- Itching
- Discharge
- Heating status
- Unit cutting time (U.C.T.)

Sing & symptoms found were graded on the basis of scoring system prepared for that by Paul O. Madson & Peter. These are as follows-

No symptom	0
Mild symptoms	+
Moderate symptoms	++
Severe symptoms	+++
Very severe symptoms with marks disturbance in daily routine of the patient	++++

**Unit cutting time (U.C.T.)**

The initial length as well as the length of ksharsutra at each successive change has been measured and recorded. The gradual shortening of the thread after each successive change corresponds to cutting of tissue, which provides an idea of the progress of a particular case. Total number of days in complete cutting of the

fistulous track divided by initial length of ksharsutra gives unit cutting time.

U.C.T. = Total number of days for cut through  
Initial length of Track (in cm)

**Statistical Analysis**

All information which are based on various parameters was gathered and statistical calculation were carried out in terms of mean (X), standard deviation (S.D.) standard error (S.E.), paired test (t value) and finally results were incorporated in term of probability (p) as-

P	≥	0.50	Insignificant
P	≤	0.020	Moderately significant
P	≤	0.010	Significant
P	≤	0.001	Highly significant

**Adjuvant Therapies**

Analgesics: The patient felt pain on the day of thread change. So whenever the pain was unbearable, the patients were prescribed analgesics to overcome the discomfort.

Laxatives: In order to promote easy evacuation of stools, Abhayarista (20ml. BD), Panchsakar churna (5gm HS) or Triphagol (5gm HS) were advised.

Jatyadi taila vasti: Basti of jatyadi taila 2-3 ml before defecation (10-15min) helped in easy evacuation of bowels and also reduced pain, if present considerably.

Awagaha sweda (hot sitz bath): It was advised routinely, twice daily after defecation to maintain local hygiene and reduce pain & inflammation.

Panch tikta ghrita guggulu and Kankayana vati (Gulma rogadhikar) 1 tab TID were advised to reduce pain and inflammation.

Patient was advised to do normal routine work but was advised against riding vehicles or sitting on hard surfaces for long periods of time.

Diet: - Green, leafy, nutritious food; avoiding meat and fried, spicy foods.

The same procedure is followed for the successive changes of ksharsutra at an interval of one week till whole track is excised. In the study we search the data for 4 weeks.

**Table No.1: It shows- Relief in Pain Weekly in Group A**

$\bar{X}$	1.4	1.7	2.2	2.5
S.D.	0.6992	0.6749	0.6324	0.7071
S.E.	0.2211	0.2134	0.2000	0.2236
t	6.3319	7.9662	11.0000	11.1806
P	<0.001	<0.001	<0.001	<0.001
%	40.00	48.57	62.85	71.42

**Table No.2: It shows- Relief in Pain Weekly in Group B**

$\bar{X}$	1.3	1.6	2.2	2.6
S.D.	0.6749	0.5163	0.4216	0.8432
S.E.	0.2134	0.1633	0.1333	0.2666
t	6.0918	9.7979	16.5041	9.7524
P	<0.001	<0.001	<0.001	<0.001
%	46.42	57.14	78.51	92.85

**Table No.3: It shows- Relief in Burning sensation Weekly in Group A**

$\bar{X}$	0.8	1.3	1.7	2.0
S.D.	0.4216	0.6749	0.4830	0.8164
S.E.	0.1333	0.2134	0.1527	0.2582

t	6.0015	6.0918	11.1329	7.7459
P	<0.001	<0.001	<0.001	<0.001
%	24.24	39.39	51.51	60.60

**Table No.4: It shows- Relief in Burning sensation Weekly in GroupB**

X	1.3	1.5	1.6	1.8
S.D.	0.4830	0.5270	0.6992	0.9189
S.E.	0.1527	0.1667	0.2211	0.2906
t	8.5134	8.9982	7.2365	6.1940
P	<0.001	<0.001	<0.001	<0.001
%	46.42	53.57	57.14	64.28

**Table No.5: It shows- Relief in Inflammation Weekly in Group A**

X	1.0	1.5	1.7	2.1
S.D.	0.4714	0.5270	0.7071	0.7378
S.E.	0.1490	0.1666	0.2236	0.2333
t	6.7114	9.0036	7.6028	9.0001
P	<0.001	<0.001	<0.001	<0.001
%	34.48	51.72	58.62	72.41

**Table No.6: It shows- Relief in Inflammation Weekly in Group B**

X	1.4	2.0	2.50	3.2
S.D.	0.8432	0.8164	0.5270	0.4216
S.E.	0.2666	0.2582	0.1666	0.1333
t	5.2513	7.7459	15.0060	24.0066
P	<0.001	<0.001	<0.001	<0.001
%	40.00	57.14	71.42	91.42

**Table No.7: It shows- Relief in Itching Weekly in Group A**

X	0.7	1.1	1.4	1.9
S.D.	0.6666	0.9944	1.0811	0.9249
S.E.	0.2108	0.3144	0.3418	0.2925
t	3.3206	3.4987	4.0959	6.4957
P	<0.01	<0.01	<0.01	<0.001
%	25	39.28	50.00	67.85

**Table No.8: It shows- Relief in Itching Weekly in Group B**

X	2.3	2.5	2.8	3.0
S.D.	0.6749	0.7071	0.8299	0.8164
S.E.	0.2134	0.2236	0.2622	0.2582
t	10.7778	11.1806	10.6707	11.6189
P	<0.001	<0.001	<0.001	<0.001
%	69.69	75.75	84.84	90.90

**Table No.9: It shows- Relief in Discharge Weekly in Group A**

X	0.6	1.0	1.3	1.7
S.D.	0.5163	0.4714	0.6749	0.4830
S.E.	0.1633	0.1490	0.2133	0.1527
t	3.6742	6.7111	6.0947	11.1329
P	<0.01	<0.001	<0.001	<0.001
%	26.08	43.47	56.21	73.91

**Table No.10: It shows- Relief in Discharge Weekly in Group B**

X	1.8	2.0	2.2	2.4
S.D.	0.7881	0.6666	0.7881	0.8432
S.E.	0.2494	0.2108	0.2494	0.1020
t	7.2173	9.4876	8.8211	23.5294
P	<0.001	<0.001	<0.001	<0.001
%	66.66	74.07	71.48	88.88

**CONCLUSION**

On the basis of observations of clinical study and statistical data, following conclusion can be drawn-

By the use of Gomutra ksharasutra, total duration of treatment was reduced thus reducing the burden of the patient in terms of loss of vital man-hours and economic power.

Pain, burning sensation, itching, discharge and tenderness also reduced significantly in-group B thus increased acceptability of Gomutra ksharasutra experimental among the patient.

The condition of wound was healthy in majority of cases during the treatment in those treated by Gomutra ksharasutra.

Post ligation complication was much reduced.

No recurrence case was reported during follow up.

**REFERENCE**

1. Abbcarian H, Anorectal fistulae, *Postgrad. Adv. Colorectal Surg.*, 1-X:1-6, 1989.
2. Agnivesha; Chikitsa Sthana; *Charaka samhita of Agnivesha*, revised by Charaka and Drudabala, 18<sup>th</sup> Ed. 1992, Chowkhamba Orientalia, Varanasi, 12<sup>th</sup> Ch. Pg 377-378.
3. Aguilar S P, Plasencia G, Hardy T G et al; Mucosal advancement in the treatment of anal fistulae, *Dis. Colon Rectum*, 28:496-498, 1985.
4. Ammon H P, Wahl M A, *Pharmacology of Curcuma longa, Planta Med.* 1991 Feb; 57(1) : 1-7
5. Amous J, Pamaud E, Denis J; Quelques reflexions sur les abces et les fistules al anus, *Rev. Prat*, 22: 1793-1814,1972.
6. Anon. Herbal pharmacy in People's Republic of China, 1975, *National Academy of Sciences*, USA.
7. Anup Banerjee, S S Nigam, Antibacterial efficacy of the essential oil derived from the various species of the genus *Curcuma linn*; March 12, *J of Res in Ind Med Yoga & H*, Vol XII. No. 1-1977.
8. Anupam Sharma, Manisha Mehata, Handa S S et al., Standardization of *ksharasutra-Ayurvedic medicated thread use in the management of fistula in ano*, *ICMR Center for advanced Pharmacological Research on Traditional Remedies*, CDRI. Lucknow.
9. Badrinath K, Jairam N, Ravi H R; Spreading extraperitoneal cellulitis following perirectal sepsis, *Br. J. Surg.*, 81: 297-298, 1994.
10. Bennett RC; A review of the results of orthodox treatment for anal fissure, *Proc. R. Soc. Med.*, 55: 756-757. 1962.
11. Bhavamishra; Bhagandara adhikara; *Bhavaprakasha II part*, 7<sup>th</sup> Edition, 2000. Chowkhamba Sanskrit Sansthan, Varanasi. 50. Pg 500-506.
12. Blond, K; *Hemorrhoids and Their treatment ; the Varicose syndrome of the rectum*, trans. E. Stanley Lee. Bristol: John Wright, 1940.
13. Caprilli R, Onori L, Frieri, G et al; Colonic water and electrolyte transport, *Colo paroctology: Basic knowledge for clinical practice*, International University press, Rome, Pg. 49-72, 1990.
14. Chakrapani Datta; Bhagandara Adhikara; *Chakradatta*, 2<sup>nd</sup> Edition, 1959, Sri Laxmi Venkateshwara steam press, Bombay, Pg 206-208.
15. Chiari, H. *Med. J. Wien*, 419, 1878.
16. Christensen J; Myoelectric control of the colon, *Gastroenterology*, 68:601-609. 1975.