



## MANAGEMENT OF FISTULA IN ANO WITH STANDARDIZED (MACHINE MADE) APAMARGA KSHARSUTRA

### Surgery

**Dr. Bharat M. Rokade**

Associate Professor, Shalyatantra department, College of Ayurved, Bharati Vidyapeeth, Pune

**Dr. Umesh A. Vaidya\***

Professor, Shalyatantra department, College of Ayurved, Bharati Vidyapeeth, Pune  
\*Corresponding Author

### ABSTRACT

Fistula in ano is one of the common surgical disease. In ayurveda it is described as Bhagandara. Fistulotomy, Fistulectomy, Passing thread or seton in fistulous tract are various treatment modalities of Fistula in ano. Ksharsutra is one of the most common treatment in Ayurveda for Fistula in ano i.e. bhagandara.

Ksharsutra is traditional method of healing of Fistula in Ano. Standardized Apamarga ksharsutra is a hour of need, which is one of the effective treatment of fistula in ano.

In the present study standardised Apamarga ksharsutra is used to treat fistula in ano with sample size of 30. Study was conducted at college of Ayurved and hospital, Bharati Vidyapeeth, Pune. Standardised Apamarga Ksharsutra is cost effective with better cutting and healing properties and has less recurrent rate.

### KEYWORDS

Machine made ksharsutra, bhagandara, fistula in ano, standardised ksharsutra.

#### INTRODUCTION-

Fistula in Ano is a tract lined by unhealthy granulation tissue which opens deeply in the anal canal or rectum & superficially around the anus.<sup>1</sup>

Anorectal disorders like Fistula in Ano, Haemorrhoids and Pilonidal sinuses are treated by unique Ayurvedic Surgical treatment i.e. Ksharsutra. Application of ksharsutra is safe, simple, effective and minimally invasive, day care surgical procedure for Fistula in Ano. Ksharsutra is mentioned by Chakradutta and Sushruta. Thus Ksharsutra is hallmark of Ayurvedic surgery and is made in India.<sup>2,7</sup> Nowadays variety of ksharsutra are used for bhagandara.

#### NEED OF STUDY-

Standardised Apamarga Ksharsutra is a specially machine made ksharsutra. Standardised ksharsutra of apamarga has advantage over traditional ksharsutra i.e. it has uniform coating, unique packaging to prevent loss of Kshara.

#### AIM AND OBJECTIVE

To study the effect of standardised Apamarga ksharsutra in the management of fistula in ano.

#### HYPOTHESIS-

Standardised Apamarga ksharsutra has better cutting and healing effect in fistula in ano.

#### MATERIALS AND METHODOLOGY-

The place of study was College of ayurved and hospital, Bharati vidyapeeth, Pune. Clinical trial was carried out in OPD/IPD/OT of Shalyatantra department. The patient is anesthetized and a malleable probe with the Ksharsutra in its groove is passed through the external opening of the fistula to its inside and the probe is then carefully taken out along with the Ksharsutra. After this both ends of Ksharsutra are tied together and replaced with a newer ksharsutra after a week. Because of this procedure, the tract is eventually cut and healed by the removal of unhealthy tissue. This controls microbial infection and facilitates drainage of pus in the tract aiding in healing.

**Study group-** 30 patients having Anorectal fistula were taken.

#### Preparation of Ksharsutra-

##### Automated Ksharsutra:-

The Apamarga Ksharsutra prepared by automated machine at Indu pharma (GMP and ISO certified), Pune.

The contents of *Standardised Ksharsutra* are -

1. Snuhikshira (Euphorbia nerifolia)
2. Apamargakshara (Achyranthusaspera)
3. Haridrachurna (Curcuma longa)

Preparation of Apamarga Ksharsutra comprises smearing a long barber's linen thread no. 20 sequentially with fresh latex (Snuhikshira) of Euphorbia nerifolia Linn, a specially prepared alkaline powder known as Apamargakshara from Achyranthusaspera Linn, and powder of dried rhizomes of Turmeric (Haridra) curcuma longa lina.

The thread coated with an automated machine (specially designed for Ksharsutra preparation) first with the latex eleven times, followed by seven alternate coating of latex and Apamargakshara and dried. In the final phase, three alternate coating of latex and turmeric powder are given and the thread will be dried and sterilized with UV rays. The threads thus prepared enveloped in a unique packing so that kshara will be maintained at Ksharsutra and loss of kshara will be avoided.

Advantage of automated made Ksharsutra will be smooth, firm and uniform coatings of Snuhikshira, Apamargakshara and Haridra. It facilitates the cutting and healing property of ksharsutra more effectively than manually made Ksharsutra.

#### Selection Criteria-

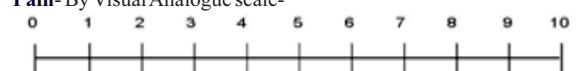
Patients having anal fistula and of 15-60 age groups were taken. Patients irrespective of sex, religion, socioeconomic class taken

#### Exclusion Criteria-

1. Patients having bleeding disorders, patients on anti-coagulating drugs and Ca-Rectum
2. Pregnant woman
3. Chronic or ulcerative colitis
4. Intestinal and Pelvic malignancies
5. Venereal diseases and HIV
6. Multiple fistulae originating due to tuberculosis
7. Crohn's disease
8. Uncontrolled DM

#### Criteria of Assessment- Subjective Parameter-

**Pain-** By Visual Analogue scale-



mild	0-1
moderate	2-5
severe	6-8
unbearable	9-10

#### Itching-

No itching 0

Mild and Occasional	1
Moderate and Occasional	2
Moderate and Frequent	3
Severe and continuous	4

**Objective Parameter****A) Discharge**

No discharge	0
Mild discharge	1
Moderate	2
Severe	3
Excruciating	4

**B) Nature of Discharge**

Blood	0
Serous	1
Purulent	2

**C) Length of Tract**

Initial length of tract is measured with the help of Probe and length of Ksharsutra within the tract.

Then on every follow up length of Previous Ksharsutra within the tract is measured with the help of scale and considered as length of tract.

**D) UCT (Unit cutting time)**

UCT = Total number of days taken to cut through / Initial length of tract in cms = Days/cms

**Investigation**

Routine haematological, biochemical and Radiographic investigation like X-Ray Chest, Fistulography and MR fistulogram if required were done.

**Follow up-**

Follow up was taken weekly up to cutting and healing of tract and observation is recorded in tabular form.

**Observations-****Incidence of Age and Sex**

Sex	Number of patients
Male	22
Female	08
Total	30

**Incidence of Age**

Age Group	No. of patients
Upto 20 years	03
21- 30 years	10
31-40 years	13
41-50 years	04

**Incidence of Clockwise position of External opening**

Clockwise position of External Opening	No. of patients
1	00
2	00
3	01
4	02
5	10
6	04
7	05
8	00
9	03
10	01
11	03
12	01
Total	30

**Types of Fistula in Ano**

Types of Fistula in Ano	No. of patients
Low anal	26
High anal	04
Total	30

**Types Of Bhagandara**

Types Of Bhagandara	No. of patients
Ushtragreev	03
Shataponak	01
Shambukavarta	05
Unmargi	00
Paristravi	21
Total	30

**Incidence of Initial length of Tract-**

Initial length of Tract	No. of Patients
Upto 5cm	18
5.1 to 10 cm	08
10.1 to 15 cm	03
Above 15 cm	01
Total	30

**Incidence of UCT with different clockwise position**

Clock wise position	UCT
1	5.8
2	6.1
3	5.6
4	5.7
5	5.4
6	5.5
7	5.3
8	6.3
9	7.4
10	5.5
11	5.8
12	6.1

**Average UCT****Average UCT for Standardised Apamarga Ksharsutra is 5.9****Probable action of Ksharsutra-**

Apamarga kshar has tridoshaghana, chedan, bhedan, lekhan property.<sup>8</sup> Haridra has anti inflammatory, antimicrobial, wound healing properties and act as blood purifier.<sup>9</sup>

**DISCUSSION-**

The most prevalent population was middle age group and males. Most of the cases cause is perianal abscess or infection of anal gland. Incidence of bhagandara found more in 31-40 years of age group. Clockwise position of external opening mainly found at 5° clock in maximum 10 patients. Out of 30 patients many cases were found of low anal fistula as far as type of fistula is concerned. According to Ayurveda 21 patients were found of Paristravi Bhagandara. Length of tract of Fistula is averagely found in 18 patients i.e. upto 5cm. Maximum UCT recorded for 9° clock is 7.4 while minimum UCT is 5.3 at 7° clock position.

**CONCLUSION-**

Average UCT for the present study is 5.9. Statistical analysis is done with 't' test and p value is significant. It suggests that Standardised Apamarga Ksharsutra has better effect in Bhagandara due to its cutting and healing properties with no recurrence.

**REFERENCES**

- Norman S. Williams, Bulstrode. Baily & Loves Short practices of Surgery. 25th edition London: Hodder Arnold publishers; 2010. pp. 1264
- Acharya Sushruta, Sushruta Samhita, Dalhana, Nibandhasangraha commentary, Edited by Jadavji Trikamji Acharya and Naarayana Ram Acharya; Varanasi: Chaukhamba Sanskrit Sansthan; Reprint 2013; Nidaanasthana 4/3-12, Pp 824, p280-282
- Acharya Sushruta, Sushruta Samhita, Dalhana, Nibandhasangraha commentary, Edited by Jadavji Trikamji Acharya and Naarayana Ram Acharya; Varanasi: Chaukhamba Sanskrit Sansthan; Reprint 2013; Chikitsasthana 17/29-33, Pp 824, p468.
- Acharya Agnivesha, Charaka Samhita, revised by Charaka & Dridabala, with Ayurveda Dipika commentary of Chakrapanidatta, Edited by Jadavji Trikamji Acharya; Varanasi: Chaukhamba Prakashan; Reprint 2013; Chikitsasthana 12/96-97, Pp 738, p490.
- Acharya Vriddha Vagbhata, Ashtanga Samgraha; with the Sasilekha commentary by Indu, Prologue by Prof. Jyoti Mitra, Edited by Dr. Shivprasad Sharma; Varanasi: Chowkhamba Sanskrit series office; Reprint 2008; Uttarasthana 33/2-44, Pp 965, p797-803
- Shri Chudamani Mishra, Rasakamdhenu with Suvritta Hindi Commentry, Edited by Acharya Shri Gulraj Mishra; Varanasi: Chowkhamba Orientalia; Chikitsaadhikar 49/1-2, Pp 329
- Chakrapanidatta, Chakradatta; with the Vaiyaprabha Hindi Commentary by Dr. Indradeva Tripathi, Edited by Prof. Ramanath Dwivedy; Varanasi: Chaukhamba Sanskrit Bhawan; Reprint 2010; Nadivranachikitsa/12-13, p269-272.
- Shastri A. Editor, Sushruta, Sushruta Samhita, Sutra sthana, Ksharapaka vidhi Adhyaya, 11/3. Reprint edition. Varanasi: Chaukhamba Sanskrita samsthana; 2009. p. 45.
- Sharma PV, editor. Mahendra Bhauigik, Dhanavantari Nightu, Guduchyadiavarga, 53, 54, 55. 5th edition Varanasi: Chaukhamba Orientalia; 2008. p. 25, 26