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A COMPARATIVE CLINICAL EFFECT OF PALASHA KSHARASUTRA WITH APAMARGA KSHARASUTRA IN THE MANAGEMENT OF BHAGANDARA

Dr. Ganapthirao I.[1]*, Dr. Chandrakanth M. Halli[2] and Dr. Subhodh Kamtikar[3]

[1]Ph.D. Scholar, [2]Professor, Guide & HOD, Department of Post Graduate Studies in Shalya Tantra, N. K. Jabshetty Ayurvedic Medical Collage & P. G. Centre, Bidar-585403 (Karnataka).
[3]Professor & H.O.D, Bidar Institute of Medical Sciences, Bidar-585403 (Karnataka).

***Corresponding Author: Dr. Ganapthirao I.**
Ph.D. Scholar, Department of Post Graduate Studies in Shalya Tantra, N. K. Jabshetty Ayurvedic Medical Collage & P. G. Centre, Bidar-585403 (Karnataka).

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ABSTRACT
Bhagandara (Fistula in Ano) is known to mankind since ages a common anorectal condition prevalent worldwide. By considering the repeated recurrence and agony experienced by the patients, which disturbing day to day life activities physically and mentally, it has been considered as difficult surgical disease for patient as well as surgeon. Exploration of new plants for the preparation of *Ksharas*utra as a better substitute of *Apamarga* k*shara* is need for the study. Present research has 2 Objectives- **1.** Evaluation of the effect of *Palasha Ksharasutra* in the management *Bhagandara*. **2**. To compare the effect of *Palasha Ksharasutra* and *Apamarga Ksharasutra* in the management of *Bhagandara*. In this study sample size is 100, patients were selected by simple random sampling, 50 in Trial Group and 50 in Control Group. Trial group treated with *Palasha ksharasutra* prepared with *Arkaksheera* and Control group treated with *Apamarga ksharasutra* in *Bhagandara*. In both group patients were symptoms free after treating but when compared to the cutting rate *Apamarga ksharasutra* has average of 0.82cm and *Palasha ksharasutra* prepared with *Arkaksheera* with an average of 0.68cm. Thus, *Palashaksharasutra* was had equipotent effect as *Apamarga ksharasutra*.

KEYWORDS: *Bhagandara*; Fistula-in-ano; *Palasha ksharasutra*; *Apamarga ksharasutra*.

INTRODUCTION
Bhagandara (Fistula in Ano) is known to mankind since ages a common anorectal condition prevalent worldwide. By considering the repeated recurrence and agony experienced by the patients, which disturbing day to day life activities physically and mentally, it has been considered as difficult surgical disease for patient as well as surgeon.

Acharya Sushruta, the father of surgery has advocated four modalities of managements viz.

- Bhaishajya
- Agni
- Kshara
- Shastra

Sushruta has given prime importance to para- surgical procedures like kshara karma, Agni karma etc. Even though Sushruta was a great surgeon he has advocated less invasive techniques in the treatment of various diseases rather than surgical intervention, which causes tissue destruction and post operative pain and bleeding. Acharya Sushruta advocated Palasha in the context of Ksharapaaka-vidhi Adhyaya. Hence Palasha kshara sutra was selected for trial and it was prepared by standard kshara sutra method and compared with Apamarga kshara sutra. Palasha has vata-hara and tridoshagna properties which reduces the pain and inflammation and promotes healing. Arka has kapha-vata hara properties therefore it causes rechana (purgation), acts in relieving constipation and helps in reducing the swelling and inflammation. Haridra having kapha-vata shamaka and pitta rechaka properties therefore it reduces the discharge which contributes healthy healing action on ulcers. It does the shodhana- ropana (cleaning and healing) and also acts as anti- inflammatory, analgesics properties.

OBJECTIVES
1. Evaluation of the effect of *Palasha KsharaSutra* prepared in *Arkaksheera* in the management *Bhagandara*.
2. To compare the effect of *Palasha KsharaSutra* prepared with *Arkaksheera* and *Apamarga KsharaSutra* in the management of *Bhagandara*.

MATERIALS AND METHODS

Group I- 50 Patients were treated with *PALASHA KSHARASUTRA* PREPARED WITH *ARKA KSHEERA*.
Group II - 50 Patients were treated with *APAMARGA KSHARASUTRA* PREPARED WITH *SNUHI KSHEERA*.

Inclusion Criteria

Criteria for the selection of patient were based on the following.

1. Patients of Bhagandara age between 16-70 years, irrespective sex, religion, occupation, economic status.
2. Patients with low anal fistula.
3. Patients with one fistulous tract.

Exclusion Criteria

Exclusion criteria were based on the following.
1. Patients with high anal fistula.
2. Patients below the age of 16 years.
3. Patients of Bhagandara associated with diseases like Tuberculosis, Diabetic mellitus, Ca Rectum, HBsAg, HIV will be excluded from the study, after thorough history and clinical information.
4.Patients of low anal fistula secondary to the ulcerative colitis and Crohn's diseases.

Operational Definitions / Techniques employed
Being a clinical study, 100 patients will be selected by Simple Randomized Sampling procedure. All the patients will be screened out by inclusive and exclusive criteria and registered for clinical trial in specially prepared research case sheet and divided in two equal groups.

Group 1 (Trial Group)

50 patients of Bhagandara will be treated with Palasha Ksharasutra prepared in arka ksheera.

Group 2 (Control Group)

50 patients of Bhagandara will be treated with Standard Ksharasutra.

Materials Required

Sterile Gloves, Gauze piece, Cotton swab, 2% lignocaine gelly, Probe, Proctoscope, 20 no. barbour's surgical linen thread, Ksharasutra, Cabinet, U.V.light, Apamarga kshara, Palasha kshara.

Procedure

The trial PalashaKsharasutras are prepared with the help of Barbour's surgical Lenin thread no.20, which will be smeared for 11 coatings of fresh arka ksheera, 7 coatings of Palashakshara and 3 coatings of haridra churna by standard Ksharasutra procedure.

Duration and follow up of the Study

In both the groups Ksharsutra will be replaced weekly. The total duration of the study will be 6 weeks.

Patients will be called on every week and the cutting rate will be assessed and recorded in a specially prepared case sheet. Observations will be analyzed on the basis of assessment parameter (both subjective and objective) clinically and scientifically before treatment and after treatment on the 1st,2 ,3 ,4 ,5 and 6th week. Finally, the results will be statistically evaluated with the help of paired 't' test within the group for its significance.
Follow up of each patient will be made for a period of 3 months after treatment with an interval of every month.

ASSESSMENT PARAMETERS

SUBJECTIVE PARAMETERS

1. **Pain**
Grade 0 (-) - Absolutely No pain
Grade 1 (+) - Mild pain
Grade 2 (++) - Moderate pain
Grade 3 (+++) - Severe pain

2. Itching
Grade 0 (-) - No itching
Grade 1 (+) -Itching sometimes but not interfering with activities can be controlled voluntarily
Grade 2 (++) -Itching interference with function involuntary and uncontrolled associated with skin patches.
Grade 3 (+++) -Itching that disturbs the sleep and or demand treatment associated with skin patches.

3. Discharge
Grade 0 (-) - No Discharge
Grade 1 (+) - Mild discharge single pad is sufficient per day.
Grade 2 (++) - Moderate discharge 2-3 pads necessary per day
Grade 3 (+++) - Profuse discharge more than 3 pads are necessary per day

OBJECTIVE PARAMETERS

1. **Local tenderness**: -was assessed by palpation of anal region.
G0 – No tenderness
G1 – Mild – Tenderness to palpation WITHOUT grimace or flinch
G2- Moderate - Tenderness WITH grimace &/or flinch to palpation
G3- Severe - Tenderness with WITHDRAWAL (+ "Jump Sign")

2. Induration
G0 - Absent
G1 - Slight swelling around the wound margin without indurations.
G2 - Swelling around wound margin with little area of indurations.
G3 - Swelling with marked indurations.
3. **Length of tract (in cm)**
Unit cutting time: -Initial length of the tract – length of the tract remaining
No of weeks treated

DATA ANALYSIS

Data will be collected using case report form designed by incorporating all aspects (Ayurveda and modern medicine) for the study. Such collected data will be tabulated and analysis using SPSS (Statistical package for social sciences) version 20 and analyzed using suitable statistical test. Demographic data and other relevant descriptive information will be analyzed with descriptive statistics. Continuous data will be expressed in mean+/- standard deviation and nominal and ordinal data will be expressed in percentages. Nominal and ordinal data will be analyzed using suitable non-parametric tests the changes with p value less than 0.05 will be considered as statistically significant.

OBSERVATION

The present study was carried out on total 100 patients in two groups as prospective study by simple randomized method of selection. The patients were tested in this clinical trial for Palasha ksharasutra and Apamarga ksharasutra. The following observations were made during the course of the present clinical research.

(1) Incidence according to Age and Sex.

Table No. -1: Incidence of Age and Sex. N= 100.

AGE (in years)	Trial group		Control group		Total		%
	Male	Female	Male	Female	Male	Female	
21-30	15	7	8	6	23	13	36.00%
31-40	8	2	8	2	16	4	20.00%
41-50	5	3	8	4	13	7	20.00%
51-60	4	2	4	3	8	5	13.00%
61-70	2	2	5	2	7	4	11.00%

(2) Incidence according to Religion.

Table No: -2. Incidence of Religion. N= 100

Religion	No. of patients		Total	%
	Trial Group	Control Group		
Hindu	38	37	75	75.00%
Muslim	5	6	11	11.00%
Christian	7	7	14	14.00%
Sikh	0	0	0	00.00%

(3) Incidence according to Marital Status.

Table No: - 3. Incidence of Marital status. N= 100

Marital status	No. of patients		Total	%
	Trial Group	Control Group		
Married	36	36	72	72.00%
Unmarried	14	14	28	28.00%

(4) Incidence according to Occupation

Table No: - 4. Incidence of occupation.

Occupation	No. of patients		Total	%
	Trial Group	Control Group		
Service	6	5	11	11.00%
Labor class	21	28	49	49.00%
Business	7	5	12	12.00%
Housewife	7	6	13	13.00%
Student	9	6	15	15.00%

(5) Incidence according to Education.

Table No: -5. Incidence of Education. N= 100

Education	No. of patients		Total	%
	Trial Group	Control Group		
Educated	31	22	53	53.00%
Uneducated	19	28	47	47.00%

(6) Incidence according to socioeconomic status.

Table No: - 6. Incidence of socioeconomic status. N= 100

Socioeconomic status	No. of patients		Total	%
	Trial Group	Control Group		
Poor class	22	29	51	51.00%
Middle class	22	19	41	41.00%
Rich class	6	2	8	8.00%

(7) Incidence according to Chief complaints

Table No: -7. Incidence of Chief complaints. N= 100

Chief complaints	No. Of patients		Total	%
	Trial group	Control group		
Pain	50	50	100	100%
Discharge	50	50	100	100%
Swelling	50	50	100	100%

(8) Incidence according to associated complaints.

Table No: -8. Incidence of associated complaints N= 100

Associated Complaints	No. Of patients		Total	%
	Trial group	Control group		
Fever	9	12	21	21.00%
Foul smelling	25	24	49	49.00%
Itching	43	38	81	81.00%
Soiling of clothes	50	50	100	100%

(9) Incidence according to Pain.

Table No: - 9. Incidence of Pain N= 100.

pain	No. Of patients		Total	%
	Trial group	Control group		
Absent	0	0	0	0.00%
Mild	22	23	45	45.00%
Moderate	24	23	47	47.00%
Severe	4	4	8	8.00%

(10) Incidence according to Treatment history

Table No: -10. Incidence of Treatment history No-100

Treatment Taken	No. Of patients		Total	%
	Trial group	Control group		
No Treatment	15	14	29	29.00%
Conservative	26	18	44	44.00%
Surgical	14	13	27	27.00%

(11) Incidence according to Dietary habits

Table No: -11. Incidence of Dietary habits N= 100.

Dietary habits	No. Of patients		Total	%
	Trial group	Control group		
Vegetarian	10	20	30	30.00%
Non-vegetarian	40	30	70	70.00%

(12) Incidence according to Appetite.

Table No: - 12. Incidence of Appetite N= 100

Appetite	No. Of patients		Total	%
	Trial group	Control group		
Poor	16	22	38	38.00%
Fair	21	10	31	31.00%
Good	13	18	31	31.00%

(13) Incidence according to Bowel habit-

Table No: -13. Incidence of Bowel habit- N= 100

Bowel habit	No. Of patients		Total	%
	Trial group	Control group		
Irregular	10	20	30	30.00%
Normal	6	7	13	13.00%
Constipation	34	23	57	57.00%

(14) Incidence of Position of the Fistula

Table No: -14. Incidence of Position of the Fistula.

QUADRANT	Clock wise position	NOOFFISTULA	TOTAL	Percentage
LUQ	1 O'clock	0	17	17.00%
	2 o'clock	0		
	3 o'clock	17		
LLQ	4 o'clock	13	26	26.00%
	5 o'clock-	6		
	6 o'clock	7		
RLQ	7 o'clock	17	40	40.00%
	8 o'clock	13		
	9 o'clock	10		
RUQ	10 o'clock	13	17	17.00%
	11 o'clock	4		
	12 o'clock	0		

(15) Incidence of Discharge on Examination

Table No: -15. Incidence of Discharge on Examination N-100

Discharge	No. Of patients		Total	%
	Trial group	Control group		
Pus	28	24	52	42.00%
Mucous	10	3	13	13.00%
Mucopurulent	6	10	16	16.00%
Serous	3	6	9	9.00%
Blood	0	0	0	0.00%
Mixed	3	7	10	10.00%

(16) Incidence of Indurations.

Table No: - 16. Incidence of Indurations.

PALPATION Indurations	No. Of patients		Total	%
	Trial group	Control group		
Present	27	30	57	57.00%
Absent	23	20	43	43.00%

(17) Incidence of Tenderness.

Table No: -17. Incidence of Tenderness.

PALPATION Tenderness	No. Of patients		Total	%
	Trial group	Control group		
Present	31	25	56	56.00%
Absent	19	25	44	44.00%

(18) Incidence on Per Rectal Examination

Table No: - 18. Incidence on Per Rectal Examination.

Position of internal opening	No. Of patients		Total	%
	Trial group	Control group		
Antero-medial	6	21	27	27.00%
Postero-medial	34	22	56	56.00%
Straight	10	7	17	17.00%

(19) Incidence of Initial Length of the Tract in cm

Table No: -19. Incidence of Initial Length of the Tract in cm

Initial Length of the Tract in cm	No. Of patients		Total	%
	Trial group	Control group		
0.1 – 3.0	23	10	33	33.00%
3.1 – 6.0	27	40	67	67.00%

(20) Incidence of Direction of the Tract

Table No: - 20. Incidence of Direction of the Tract

Direction of the Tract	No. Of patients		Total	%
	Trial group	Control group		
Radial	39	42	81	81.00%
Curved	11	8	19	19.00%

(21) Incidence of Type of Fistula

Table No: -21. Incidence of Type of Fistula.

Type of Fistula	No. Of patients		Total	%
	Trial group	Control group		
Sub-cutaneous (SCF)	18	31	49	49.00%
Sub-Mucus (SMF)	6	9	15	15.00%
Inter-Sphincteric (ISF)	13	4	17	17.00%
Trans-Sphincteric (TSF)	4	3	7	7.00%
Supra-Sphincteric (SSF)	9	3	12	12.00%

(22) Incidence of Bhagandara

Table No: - 22. Incidence of Bhagandara N-100.

Types of Bhagandara	No. Of patients		Total	%
	Trial group	Control group		
Parisravi	47	46	93	93.00%
Ustragreeva	3	4	7	7.00%
Shambukavarta	0	0	0	0%
Shataponaka	0	0	0	0%
Unmargi	0	0	0	0%

Average unit cutting time (U.C.T.) of Group –1 is 0.68 cms.

Average unit cutting time (U.C.T.) of Group –2 is 0.82 cms.

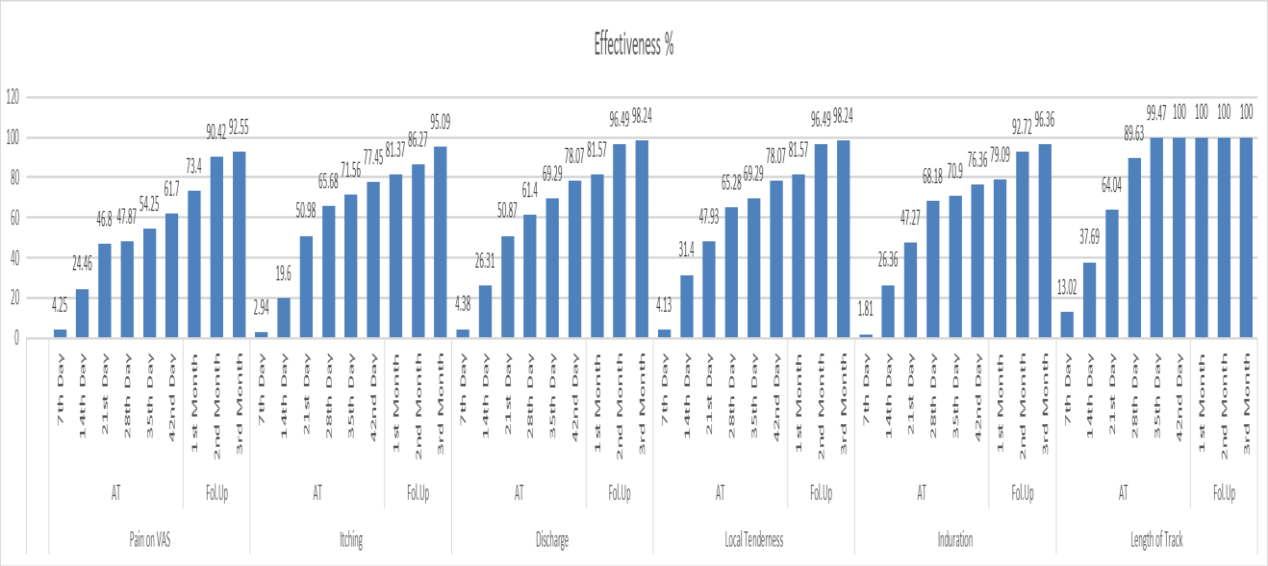
RESULTS

In the present clinical study, the result of all the cases were noted on the basis of following points.

Trial Group

Table No: -36. Trial group result-1.

Sign and Symptoms	BT Mean ± S.E.	Assessment	Mean ± S.E.	Df	T-value	p-value	Effectiveness %	Remark
Pain on VAS	1.8±0.038	7th Day	1.8±0.038	49	2.064	>0.05	4.25	NS
		14th Day	1.42±0.086		5.305	<0.001	24.46	HS
		21st Day	1.0±0.079		11.14	<0.001	46.80	HS
		28th Day	0.98±0.076		11.69	<0.001	47.87	HS
		35th Day	0.86±0.066		15.23	<0.001	54.25	HS
		42nd Day	0.72±0.072		16.09	<0.001	61.70	HS
		1st Month	0.5±0.080		17.19	<0.001	73.40	HS
		2nd Month	0.18±0.082		20.71	<0.001	90.42	HS
		3rd Month	0.14±0.079		21.79	<0.001	92.55	HS
Itching	1.98±o.o33	7th Day	1.98±0.033		1.76	>0.05	2.94	NS
		14th Day	1.64±0.080		4.94	>0.05	19.60	NS
		21st Day	1.0±0.069		14.91	<0.001	50.98	HS
		28th Day	0.7±0.078		17.00	<0.001	65.68	HS
		35th Day	0.58±0.076		19.03	<0.001	71.56	HS
		42nd Day	0.46±0.086		18.34	<0.001	77.45	HS
		1st Month	0.38±0.088		18.74	<0.001	81.37	HS
		2nd Month	0.28±0.088		19.92	<0.001	86.27	HS
		3rd Month	0.10±0.096		20.10	<0.001	95.09	HS
Discharge	2.18±0.051	7th Day	2.18±0.051		1.94	>0.05	4.38	NS
		14th Day	1.68±0.070		8.57	>0.05	26.31	NS
		21st Day	1.12±0.087		13.27	<0.001	50.87	HS
		28th Day	0.88±0.085		16.33	<0.001	61.40	HS
		35th Day	0.70±0.076		20.76	<0.001	69.29	HS
		42nd Day	0.50±0.065		27.08	<0.001	78.07	HS
		1st Month	0.42±0.064		29.08	<0.001	81.57	HS
		2nd Month	0.08±0.090		24.34	<0.001	96.49	HS
		3rd Month	0.04±0.092		24.12	<0.001	98.24	HS
Local Tenderness	2.32±0.042	7th Day	2.32±0.042		2.33	<0.05	4.13	S
		14th Day	1.66±0.073		10.38	<0.001	31.40	HS
		21st Day	1.26±0.066		17.53	<0.001	47.93	HS
		28th Day	0.84±0.081		19.44	<0.001	65.28	HS
		35th Day	0.70±0.076		20.76	<0.001	69.29	HS
		42nd Day	0.50±0.065		27.08	<0.001	78.07	HS
		1st Month	0.42±0.064		29.08	<0.001	81.57	HS
		2nd Month	0.08±0.090		24.34	<0.001	96.49	HS
		3rd Month	0.04±0.092		24.12	<0.001	98.24	HS
Induration	2.16±0.027	7th Day	2.16±0.027		1.42	>0.05	1.81	NS
		14th Day	1.62±0.070		8.22	<0.001	26.36	HS
		21st Day	1.16±0.075		13.79	<0.001	47.27	HS
		28th Day	0.70±0.076		19.49	<0.001	68.18	HS
		35th Day	0.64±0.076		20.40	<0.001	70.90	HS
		42nd Day	0.52±0.072		23.17	<0.001	76.36	HS
		1st Month	0.46±0.068		25.26	<0.001	79.09	HS
		2nd Month	0.16±0.098		20.64	<0.001	92.72	HS
		3rd Month	0.08±0.097		21.74	<0.001	96.36	HS
Length of Track	3.00±0.046	7th Day	3.00±0.046		9.76	>0.05	13.02	HS
		14th Day	2.15±0.065		19.84	<0.001	37.69	HS
		21st Day	1.24±0.072		30.56	<0.001	64.04	HS
		28th Day	0.35±0.083		37.27	<0.001	89.63	HS
		35th Day	0.01±0.095		36.08	<0.001	99.47	HS
		42nd Day	0.00±0.096		35.70	<0.001	100	HS



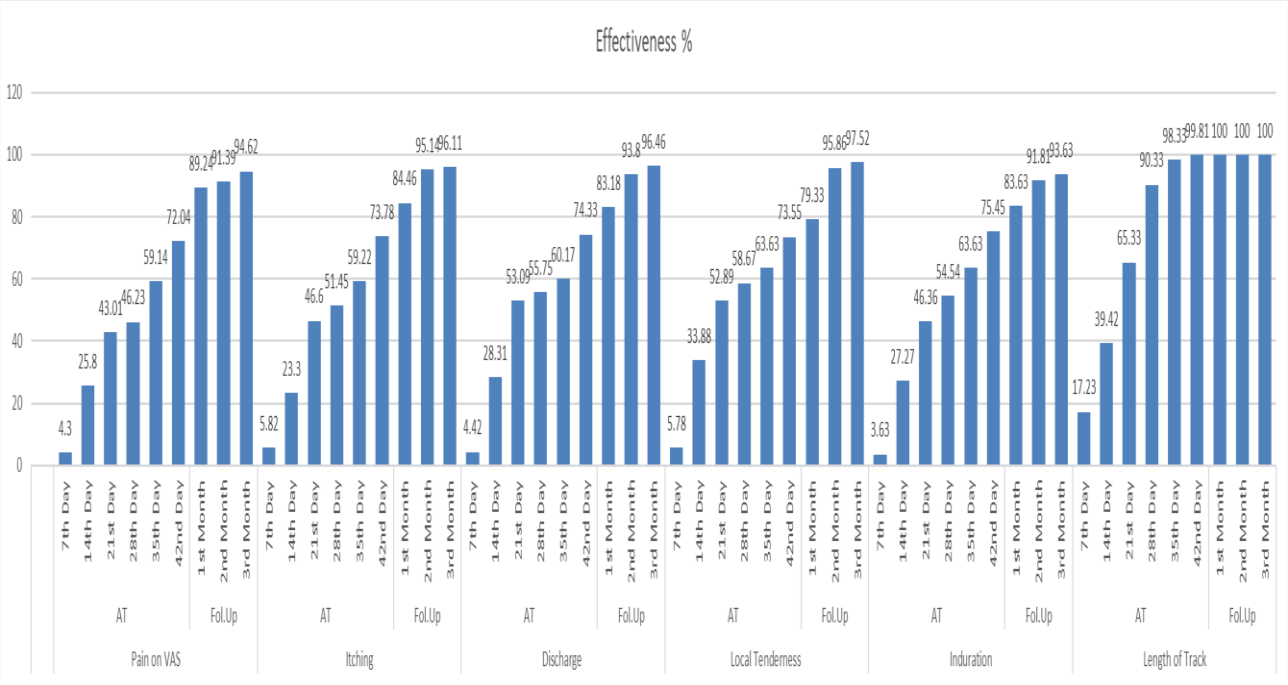
Graph No:-23. Effectivness % of Trial Group-1.

CONTROL GROUP.

Table No:-37.Control group result:-2.

Sign and Symptoms	BT Mean ± S.E.	Assessment	Mean ± S.E.	Df	T-value	p-value	Effectiveness %	Remark
Pain on VAS	1.78±0.038	7th Day	1.78±0.038	49	2.06	>0.05	4.30	NS
		14th Day	1.38±0.082		5.85	>0.001	25.80	S
		21st Day	1.06±0.080		9.89	<0.001	43.01	HS
		28th Day	1.00±0.090		9.51	<0.001	46.23	HS
		35th Day	0.76±0.076		14.29	<0.001	59.14	HS
		42nd Day	0.52±0.088		15.12	<0.001	72.04	HS
		1st Month	0.20±0.088		18.74	<0.001	89.24	HS
		2nd Month	0.16±0.091		18.58	<0.001	91.39	HS
		3rd Month	0.10±0.088		19.92	<0.001	94.62	HS
Itching	1.94±0.046	7th Day	1.94±0.046		2.58	>0.05	5.82	NS
		14th Day	1.58±0.091		5.25	>0.05	23.30	NS
		21st Day	1.10±0.085		11.22	<0.001	46.60	HS
		28th Day	1.00±0.096		10.98	<0.001	51.45	HS
		35th Day	0.84±0.082		14.83	<0.001	59.22	HS
		42nd Day	0.54±0.076		19.77	<0.001	73.78	HS
		1st Month	0.32±0.089		19.44	<0.001	84.46	HS
		2nd Month	0.10±0.102		19.05	<0.001	95.14	HS
		3rd Month	0.08±0.101		19.60	<0.001	96.11	HS
Discharge	2.16±0.42	7th Day	2.16±0.042		2.53	>0.05	4.42	NS
		14th Day	1.62±0.068		9.33	>0.05	28.31	NS
		21st Day	1.20±0.080		14.84	<0.005	53.09	S
		28th Day	1.00±0.084		14.85	<0.001	55.75	HS
		35th Day	0.90±0.084		16.08	<0.001	60.17	HS
		42nd Day	0.58±0.077		21.55	<0.001	74.33	HS
		1st Month	0.38±0.067		27.70	<0.001	83.18	HS
		2nd Month	0.14±0.088		23.89	<0.001	93.80	HS
		3rd Month	0.08±0.084		25.88	<0.001	96.46	HS
Local Tenderness	2.28±0.049	7th Day	2.28±0.049		2.82	>0.05	5.78	NS
		14th Day	1.60±0.079		10.34	>0.001	33.88	S

		21st Day	1.28±0.064		19.95	<0.001	52.89	HS
		28th Day	1.00±0.070		20.13	<0.001	58.67	HS
		35th Day	0.88±0.081		18.81	<0.001	63.63	HS
		42nd Day	0.64±0.077		23.07	<0.001	73.55	HS
		1st Month	0.50±0.062		30.54	<0.001	79.33	HS
		2nd Month	0.10±0.077		29.76	<0.001	95.86	HS
		3rd Month	0.06±0.068		34.41	<0.001	97.52	HS
Induration	2.12±0.038	7th Day	2.12±0.038		2.06	>0.05	3.63	NS
		14th Day	1.60±0.070		8.57	<0.001	27.27	HS
		21st Day	1.18±0.072		14.01	<0.001	46.36	HS
		28th Day	1.00±0.090		13.28	<0.001	54.54	HS
		35th Day	0.80±0.075		18.52	<0.001	63.63	HS
		42nd Day	0.54±0.073		22.59	<0.001	75.45	HS
		1st Month	0.36±0.072		25.53	<0.001	83.63	HS
		2nd Month	018±0.088		22.95	<0.001	91.81	HS
		3rd Month	0.14±0.082		24.86	<0.001	93.63	HS
Length of Track	3.47±0.071	7th Day	3.47±0.071		10.15	<0.05	17.23	S
		14th Day	2.55±0.087		18.83	<0.001	39.42	HS
		21st Day	1.45±0.097		28.02	<0.001	65.33	HS
		28th Day	0.40±0.112		33.61	<0.001	90.33	HS
		35th Day	0.07±0.128		32.20	<0.001	98.33	HS
		42nd Day	0.008±0.135		30.98	<0.001	99.81	HS



Graph No: - 24. Effectiveness % of Control Group-2.

CONCLUSION

The present study entitled "**Palasha kshara Sutra prepared with Arkaksheera in the management of Bhagandara (Fistula in ano)**" was targted to evaluate the effect of Palasha ksharasutra prepared with Arka ksheera in Bhagandara. Based on the detailed clinical analysis, keen observation and statistical evaluation conclusions are drawn as follows-

1. The management of Bhagandara (Fistula in ano), ksharasutra has been proved effective modality by this study.
2. Both Ksharasutras were effective over all the chief complaints of disease. Ex. Pain, itching, discharge etc.
3. The undesired effects like irritation and severe pain subjected to ksharasutra management could be minimized by using Palasha ksharasutra prepared with Arkaksheera.
4. Study shows that the Unit cutting time of both groups is highly significant; however, Apamarga ksharasutra has larger U.C.T than Palasha ksharasutra prepared in Arkaksheera.
5. Palasha ksharasutra prepared in Arkaksheera has been found very effective in relieving symptoms i.e reduces

pain, swelling, itching, discharge and local tenderness in fistula in short duration.
6. Both the varieties are cost effective, non-invasive, easily prepared and easily applied with less recurrence after treatment in this study and can be conducted in OPD level.
7. No significant post-operative complications observed in this study.
8. It can also use as an independent modality of management of Bhagandara whenever the apprehended patient does not withstand with Apamarga Kshara Sutra therapy.
9. Palasha ksharasutra prepared with Arkaksheera is best alternative to Apamarga ksharasutra prepared with snuhi ksheera in the management of Bhagandara.

REFERENCES

1. Prof K.R. Srikantha Murthy –Sushruta Samhita, nidana sthana– Vol-1, edition 2014, Chaukhambha Orientalia, Varanasi, page no 490.
2. Prof K.R. Srikantha Murthy –Sushruta Samhita, Sutra sthana– Vol-1, edition 2014, Chaukhambha Orientalia, Varanasi, page no 63-69.
3. Sri Vishwananda dwivedi Shastri,Bhavaprakash nighantu, edition 1977, Motilal Banaras Das, New Delhi, Page no- 320.
4. G.D.Singhal, Sushrutha Samhita of Sushrutha, chikitsasthana, Edition 2, 2007, Choukhamba Sanskrit Pratishtana, Delhi, Page no-319.
5. Dr.Praveen Kumar& Dr.KK.Shijoria, Diagnosis & Management of Ano-rectal Disorders- 1 Edition, 2002, Chowkhamba Sanskrit Pratisthana, New Delhi, Page no-65-77.
6. Dr.Martha Bhaskar rao & Dr.G,S.Lavekar, 1st Edition 2009, Recent Advances in Ksharasutra, Chowkhamba Sanskrit Sansthana, Varanasi,Page no-195-196.
7. Dr. K.N.Shukla, Multicentric Randomised Controlled Clinical Trial of Ksharasutra in the Management of Fistula in ano, Indian Jemmed Res(B)94, June 1991, Page No-177-185.
8. Deshpande.P.J& Sharma.K.R, Treatment of Fistula in ano by a new technique, Review and follow up 200 Cases, Am.J.Proctol1976, Page no 39.
9. The Ayurvedic Formulary of India, [part IV], Revised English edition, Govt. of India, New Delhi, 1975, Page no 1034.
10. Kiritikar K.R. andBasu B.D- Indian medicinal plants – (Vol I) Published by m/s periodical express, N. Delhi 1975, Page no-2034.
11. Medicinal plants of India (Vol, II), published by ICMR, New Delhi- 1987, Page no-346.
12. Charless V.Mann, , R.C.G.Russel & Norman S.Williams, Bailey & Loves Short Practice of Surgery, 22nd Edition 1995, Mateu Chromo, S.A.Pinto(Madrid), Spain, Page no-897.