



## Research Article

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### COMPARATIVE CLINICAL STUDY OF PALASHA KSHAR SUTRA AND APAMARGA KSHAR SUTRA IN THE MANAGEMENT OF FISTULA IN ANO

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#### ABSTRACT

kshar sutra karma in treatment of bhagander is now an accepted technique. Apamarga kshar sutra is considered as a standard kshar sutra but it has some drawbacks. Apamarga ksharsutra sometimes produces severe pain and burning sensation during therapy and availability of apamarga is also difficult throughout year as apamarga is seasonal plant. In order to overcome these disadvantages of apamarga kshar sutra several other kshar sutra has been tried by different research scholars. In present study palasha kshar sutra is selected to make the therapy more popular in children, female and elders, as apamarga kshar produces severe burning pain during therapy and it is difficult for these types of patient to continue the therapy. This study has proven that palasha kshar sutra is equally good as apamarga kshar sutra with marked reduction of symptoms like pain, burning sensation, irritation and other skin reactions. So palasha kshar sutra is considered as a better alternative for standard apamarga kshar sutra.

**Keywords:** bhagander, apamarga kshar sutra, palasha kshar sutra

#### INTRODUCTION

Ayurveda is the complete science of life. Ayurveda takes whole man physically as well as mentally into account while describing the principle of treatment. This is very clear from the definition of swasthpusa<sup>1</sup> given by sushruta that one is known to be healthy when dosha, agni, dhatu, mala are in state of equilibrium in structure and function along with happy mind. The present study confines to one of the disease bhagander which was described as one of the mahagada<sup>2</sup> by acharya sushruta. The ksharsutra was first mentioned by acharya sushruta for the treatment of nadi vrana, bhagander, arbuda etc. It was chakrapani dutta who in late eleventh century mentioned in his book chakradutta, the method of preparation of kshar sutra with clear cut indication of its use in bhagander and arsha for first time<sup>3</sup>. Even in the modern era inspite of tremendous advances in the field of diagnostics, pharmaco-therapeutics and surgery, the disease bhagander still remains its position as a challenging problem to shalya chikitsaka. The history of medical science shows that the disease bhagander is notorious from its chronicity and management inspite of sufficient precautions and planning during surgery; as well as in post operative period, the complications like faecal incontinence, recurrence and mutilation of surrounding tissues are much, therefore, sushruta has adopted divergent and multifold approach for the treatment of bhagander. One of the methods of bhagander treatment is known as kshar sutra treatment. It is well known fact that kshar sutra treatment employed in bhagander is successful according to the various research workers and clinicians<sup>4</sup>. The standard kshar sutra is apamarga kshar sutra. But still there are some problems faced during the preparation of

kshar sutra and during the course of kshar sutra therapy like collection of apamarga kshar, as apamarga is seasonal plant and available in winter and rainy season, Apamarga kshar sutra produces burning pain during therapy and successive changes. Sometimes this therapy becomes difficult in sensitive patients like children, females and elders. To overcome these disadvantages it was important to make the treatment widely popular and acceptable. Thus many different kshar sutra were tried by number of research scholars<sup>5</sup>. Sushruta has described many drugs in kshara paka vidhi Adhyaya<sup>6</sup> which can be used for preparation of kshar, among which palasha is selected in this research work for the preparation of ksharsutra, as palasha is inherited with the properties of krimigna, vranahara and gudarogajith. The idea behind the present work was to find the effectiveness of palasha kshar sutra and its comparison with apamarga kshar sutra in the management of bhagander. Previously work over palasha kshar sutra in fistula in ano done by Kumar Mahesh under guidance of Kumar Hemantha at Government Ayurvedic College Hassan, Karnataka, India.

#### MATERIAL AND METHODS

A clinical study was planned on comparative effect of palasha and apamarga kshar sutra in the management of bhagander and clinical trial was done in the department of post graduation studies in shalya tantra at Rajiv Gandhi government post graduation Ayurvedic College Paprola and Rajendara Prasad Government Medical College Tanda Kangra Himachal Pradesh, India. Comparative study of palasha kshar sutra and apamarga kshar sutra in the management of bhagander has been studied in the twenty cases which are divided in to two groups' i.e. standard

group apamarga kshar sutra and trial group palasha kshar sutra.

6) intestinal and pelvic malignancies 7) Venereal diseases 8) HIV positive

**Inclusion Criteria**

The cases were selected from patients attending surgical O.P.D in department of shalya tantra at Rajiv Gandhi government post graduation Ayurvedic College Paprola and Rajendra Prasad Government Medical College Tanda Kangra Himachal Pradesh, India at random of age above 12 years, both sexes, operative recurrences, different duration of sign and symptoms as documented in classics.

**Exclusion Criteria**

The cases excluded were secondary fistula due to 1) crohns disease 2) tuberculosis 3) ulcerative colitis 4) intra abdominal cold abscess 5) osteo myelitis of pelvic bones

**Assessment criteria**

- U.C.T: total number of days for cut through / initial length of track in cm = - days / cm
- Pain
- Srava
- Tenderness
- Size of wound
- Daha
- Healing time after cut through

**Table 1: Criteria for the assessment of various parameters on basis of grading**

S. No.	Parameter	Criteria	Grade
1	Pain	No pain	0
		Mild pain	1
		Moderate pain	2
		Severe pain	3
2	Srava	No discharge	0
		Mild (if vrana wets 1/2 × 1/2 cm gauze piece)	1
		Moderate (if vrana wets 1 × 1 cm gauze piece)	2
		Severe ( if vrana wets more than one cm	3
3	Tenderness	No tenderness	0
		Mild tenderness	1
		Moderate tender ness	2
		Severe tenderness	3
4	Size of wound	Healed	0
		Wound within 0.5-1 cm	1
		Wound within 1-2 cm	2
		Wound within 2-3 cm	3
5	Daha	No burning sensation	0
		Mild	1
		Moderate	2
		Severe	3

**Healing time after cut through**

Area of trial group and standard group of patients were compared with wound square cm area (compared) with the following formula.

$$U.H.T = \frac{\text{Total no. of days of wound healing}}{\text{Initial length} \times \text{Breadth} \times \text{height}} = \text{days/sq.cm}$$

**Follow-up**

All the patients were instructed to visit Ano-rectal O.P.D. once in a week in order to make thorough follow-up of the cases. Then the patients were treated on the line of wound management till the wound heals completely. During each follow-up visit, the patient was examined for any recurrence of disease.

**RESULTS**

**Table 2: Summary of the comparative Effects on Various variables in Trial and Standard Group**

Cardinal Features	Trial group		% relief	't' value	Control group		% relief	't' value
	Mean score				Mean score			
	BT	AT			BT	AT		
Pain (Vedna)	1.3	0.5	61.53	4	1.8	0.9	50	4.63
Discharge (Srava)	1.8	0.6	66.66	9.09	1.8	0.9	50.23	3.857
Tenderness	1.9	0.5	73.68	8.573	2.3	0.7	69.57	7.236
Size of wound	2.2	1.5	31.80	4.7	1.9	1.5	20.50	3.0
Daha (Burning Sensation)	1.7	0.3	82.35	5.250	1.7	0.6	64.70	6.128

BT – Before Treatment; AT – After Treatment

**Table 3: Comparison between two groups on the basis of Average Unit Cutting Time**

Group	Mean	SD+	SE+	't'	df.	'p'	Inference
Trial Group	10.228	2.0008	0.632	16.165	9	< 0.001	Highly Significant
Standard Group	9.275	1.198	0.379	24.463	9	< 0.001	Highly Significant

**Assessment of healing time in Comparison with Trial and Standard group**

**Table 4: Status of Wound healing in therapy group after 7 days of cut through**

Variable	Mean Score		Diff.	% relief	SD+	SE+	't'	P
	BT	7 days						
Trial Group	1.45	0.75	0.70	48	0.470	0.110	6.660	< 0.001
Standard Group	1.25	1.10	0.15	12	0.366	0.0818	1.9350	> 0.05

**Table 5: Status of Wound healing in therapy group after 15 days of cut through**

Variable	Mean Score		Diff.	% Relief	SD+	SE+	't'	P
	BT	15 days						
Trial Group	1.45	0.65	0.80	84	0.490	0.110	11	< 0.001
Standard Group	1.25	0.80	0.45	36	0.5108	0.142	3.94	< 0.001

**Table 6: Status of Wound healing in therapy group after 21 days of cut through**

Variable	Mean Score		Diff.	% relief	SD+	SE+	't'	P
	BT	21 days						
Trial Group	1.45	0	1.45	100	0.818	0.366	14.19	< 0.001
Standard Group	1.25	0	1.25	100	0.099	0.444	12.61	< 0.001

**Table 7: Overall comparative result of therapy and percentage of improvement in both groups**

Result	Trial Group		Standard Group	
	No. of Patients	%	No. of Patients	%
Cured	9	90	8	80
Improved	1	10	2	20
Recurrence	0	0	0	0
Total	10	100	10	100

Table 3 shows that in trial group average unit cutting time is 10.228 d/cm whereas in standard group it is 9.275 d/cm which signifies that average unit cutting time in standard group is .953 d/cm less than trial group. Table 4 shows that healing time was present in 48 % cases of trial group as compared to 12 % cases in standard group.

Table 5 shows that healing time was present in 84 % cases of trial group as compared to 36 % cases in standard group.

Table 6 shows that healing time was present in 100% of cases in trial group and standard group.

Table 7 reveals that in this research work out of 10 patients in trial group 9 were completely cured and only 1 patient complaint of pain and irritation after treatment. No recurrence was reported in any patient of trial group during follow-up. In standard group out of 10 patients 8 patients were completely cured where as two patients shows reduction in symptoms i.e. improved. No recurrence was reported in any patient of standard group during follow-up.

**DISCUSSION**

The latest developing branch of medical science which deals with the diseases of ano rectal region is coloproctology. Some of the disorders of ano rectal region are considered difficult to treat, among them the bhagander is one of the diseases, which considerably attracted the attention of ancient as well as modern professionals which is evident from detailed description of classification, aetiopathogenesis, symptomatology, complications and detailed management procedures mentioned in ancient samhitas<sup>7</sup>. The management of Fistula-in-Ano is one of the major problems faced by the surgeons even in the era of modern science. This is clearly evident from the review of the literature, that there are many draw backs and

unwanted effects in the surgical management such as high recurrence rate, development of Post operative complications, prolong hospitalization, extensive mutilation of tissues and faecal incontinence.<sup>8</sup> The kshar sutra therapy was practiced and used for more than four decades with great success and practically with almost negligible recurrence in the management of bhagander. In routine any Kshar sutra is considered as Apamarga Kshar Sutra until or unless it is specified. But some of the problems that clinicians were facing during collection of apamarga kshar, as it is a seasonal plant and not available in a single place and produce much burning pain during primary and successive changes of therapy. Therefore in the present study the palasha Kshar has been used in the place of Apamarga kshar having vranahara, Krimigna and Gudarogajith properties. On the basis of successful management of Fistula-in-Ano by kshara sutra it has become an accepted technique worldwide. In Modern surgery Hippocrates (460-356 B.C.) has described Fistula-in-Ano and its management by setons. It is quite important to note here that Sushruta (1500-1000B.C.) described the etiology, pathology, signs, and symptoms, varieties etc. of the disease in detail<sup>7</sup>. He also described blind internal, blind external fistula, the detailed techniques of surgery i.e. excision or fistulectomy that shows the advancement that has taken place in the management of Fistula-in-Ano. The present day techniques are just a reflection of his principle. In this study effect of therapy was assessed on the basis of changes observed after the treatment in cardinal features. The overall effect of therapy was assessed both in term of improvement observed in grades of various variable and in overall percentage of relief in the status of fistulous track. In pain trial group showed a relief of 61.53 % while standard group showed a relief of 50 %. Both the individual value is highly statistically

significant. But the difference of relief in grade of both the groups when compared statistically is insignificant. In discharge trial group showed a relief of 66.66 % as compared to standard group relief of i.e. 50 %. Both the individual value is highly statistically significant. But the difference of relief in grade of both the groups where compared statistically is insignificant. In tenderness trial group showed a relief of 73.68 % as compared to standard group relief of i.e. 69.57 %. Both the individual value is highly statistically significant. But the difference of relief in grade of both the groups when compared statistically is insignificant. The size of wound in trial group showed a relief of 89.47 % as compared to standard group relief of i.e. 76.42 %. Both the individual value is highly statistically significant. But the difference of relief in grade of both the groups when compared statistically is insignificant. In daha trial group showed a relief of 82.35 % as compared to standard group relief of i.e. 64.70 %. Both the individual value is highly statistically significant. But the difference of relief in grade of both the groups when compared statistically is insignificant. The number of patient was assessed as completely cured; 90 % in trial group where as 80 % in standard group. One patient was recorded as improved in trial group where as 2 patients were improved in standard group. No recurrence was reported in both the group trial as well as in standard group during the follow up. So the above observations clearly established the fact that in the management of bhagander kshar sutra karma is equally effective irrespective of type of kshar used for the preparation of kshar sutra.

#### CONCLUSION

The sole aim of the research work was to compare the efficacy of palasha Kshara Sutra as trial group with Apamarga kshar sutra as Standard group. On the basis of above research work and statistical data it may be concluded that in treated group of palasha kshar sutra there was marked reduction of symptoms like pain, irritation, inflammation, burning sensation and local

reactions. Preparation of palasha Kshar sutra is much easier and affordable than Apamarga Kshar sutra. Wound healing after cut through was faster in trial group as compared to standard group. No recurrence of cases was reported during the follow up. So, Palasha Kshar Sutra can be considered as a better alternative in place of Apamarga kshar sutra. On the basis of the results of this research work it can be highlighted that the palasha kshar sutra is much more effective in the management of fistula-in-Ano in several aspects as compared to Apamarga kshar sutra but to establish this fact further study of longer duration and on larger sample is required.

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