Effect of Kshara-Karma in Parikartika (Acute Fissure in Ano)

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ABSTRACT

The commonest ailments in ano rectal region are Arsha (piles), Bhangadar (fistula in ano), Parikartika (Fissure in ano), Gudakandu (pruritus ani) and Guda vidradhi (abscess), etc. As per classics Parikartika is a vyapad (complication) due to Basti and Virechan karma. It is mostly situated at the midline posterior of anus and very painful condition. As per massive and random study of the Indian proctology Society the prevalence rate of anal fissure may be more than 20% of ano rectal disorders, but it varies region to region from 15-30%. To treat Parikartika conservative & surgical interventions are available but those are having disadvantages and recurrence. In order to explore some new intervention the study had been carried out to achieve satisfactory & radical cure by Ksharakarma. Kshara has different properties as krimighna, vishaghna, chhedan, Bhedan, Lekhan, shodhan, stambhan, ropan, etc. and it has also capability of allying doshas -Vata, Pitta & Kapha. In this study mridu Kshara of Apamarga was used in the forms of Lepa and Tail in acute condition of anal fissure. Total 30 patients were divided into three groups, in group A- Kshara Lepa, in group B- Kshara Taila and in group C- Both Taila and Lepa were used. The local application of those Kshara form were done up to two weeks. The findings were noted after 7th and 14th days of treatment and assessment of the results was done. After completion of 7 days treatment of local application in ABC group, it was observed up to 40% of relief in average but after completion of 14 days it was seen that the results were above 80% in A & C group where as in Group B it was above 90%. Statistically the results in all the groups were found highly significant without any adverse effect and recurrence. The follow up period was for 3 months. It was concluded that in acute condition of the Parikartika Kshara was very effective.

KEY WORDS: Basti, Fissure in ano, Parikartiaka, Kshara, Lepa, Tail, Virechan.

INTRODUCTION

Parikartika can be regarded as a synonym for fissure-in-ano due to its close resemblance in sign and symptomatology. It can be identical as Agantuja vrana and can also occur as complication of various generalized disorders. Passage of hard fecal matter is a major cause of Parikartika, in which a cyclic nature of pain and spasm is always present and it is having kartan vat vedena[1] in Guda Pradesh which is one of the seats of Sadyapranahar Marma.[2] For its remedy the prevailing modern system of treatments are laxatives, local anesthetics, Lord's anal dilatation, sphinctrectomy, fissurectomy[3] etc according to the condition of fissure which don't contribute satisfactory results. Hence to solve this critical anal problem Shalya chikitsa of Ayurveda has its appropriate answer. Sushruta has indicated the use of Kshara-karma[4] in various contexts in general disease as well as in Guda roga. Kshara has been advocated to prepare from different herbal plants like *Achyranthus Aspera*[5], *Sesamum Indicum,* etc. Paneeya Kshara is used internally in many GIT disorders while

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Pratisarniya kshara is used locally in the manner of para surgical procedure. Charaka has given more emphasis to see for the yapada before giving Basti & treat them first. He had focused on the conservative treatments and prescribed suitable dietary regimes to treat Parikartika.[6] [7]

In this regard as Sushruta has given more emphasis on ksharakarma and shalya karma modalities so multidimensions are to be explored and in regard of ksharkarma i. e. kshara malahar, kshara prota, kshara dravana, kshara lepa, ksharaTaila, kshara varti, ksharasutra are existing in the practice. But in fact ksharasutra has been proved very effective in piles and fistula.[8] [9] [10]

In the study innovative step was taken to see the efficacy of Apamarga *(Achyranthus Aspera)* mridu Kshara in the form of local application in acute fissure. The applications were in the form of Kshara lepa and kshara taila in local lesion. The clinical study was carried out on 30 patients of Parikartika and they were divided into 3 groups accordingly. Trials of treatments were as- Group-A: Kshara-Lepa, Group-B: Kshara Taila, Group C: Kshara-Lepa & Kshara Taila. Local application was done for 14 days and results were assessed. After completion of 14 days treatment in group ABC total cured of the patients were 80%, 80%, 90% respectively. On the basis of clinical observations and results, it was concluded that Kshara karma is quite effective in curing the anal fissure.

AIMS AND OBJECTIVES

1. A comparative literary study on Parikartika with special reference to fissure in ano with ancient and modern literature.

2. To find out local effect of Apamarga mridu Kshara in healing of acute condition of fissure in ano.

MATERIAL AND METHODS

Conceptual study

All information related to Parikartika & Ksharakarma had been collected from the concerned Ayurvedic as well as modern texts. Different medical / surgical treatments modalities for fissure in ano were elaborately described.

Drug review

Haridra, Snuhi, Til Taila, Gomutra all were well described with their properties & therapeutic uses. Apamarga (*Acharanthus aspera Linn*) Kshara [11] [12] had been prepared according to the classical views. Kshara Lepa[13] - It had been prepared with fresh latex of Snuhi (*Ephorbia nerifolia linn*), Powder of Haridra (*Curcuma longa*) and Gomutra (Cow's urine). Kshara Tail[14] It had been prepared according to the Ayurvedic Text.

Sphatikadi yoga[15]: Sphatika (*Alum*) Karanja beeja (*Pongamia pinnata*), Neemb Beeja (*Azadirecta indica*), Khadir (*Accacia catechu*).

Clinical study

Total 30 patients of Parikartika (fissure in ano) were selected by simple random sampling method from OPD & IPD of Post Graduate Dept. of Shalya- Shalakya, Gopabandhu Ayurved Mahavidyalaya, Puri, Orissa. They were divided into three groups as follows,

Group A-10 patients of acute fissure were treated with Kshara-Lepa.

Group B-10 patients of acute fissure were treated with Kshara-Taila.

Group C-10 patients of acute fissure were treated with both Kshara-Lepa & Kshara Taila.

Inclusion criteria

Age group-10 to 50 years

Acute fissure in ano

Patients presenting with complaints of fissure in ano i.e. pain, bleeding per rectum, constipation irrespective of sex, religion, education & socio-economic status were included in this study.

Exclusion criteria

Age - below 10 & above 50 years

Patients suffering from multiple anal ulcers, ulcerative colitis, Carcinoma of rectum, Tuberculosis, STD, Hypertension,

Diabetes Mellitus and Cardiac disorders were excluded.

Diagnostic criteria

Diagnosis was made on the basis of physical examinations by inspection of position & number of fissures.

Investigations

Routine Haemogram: Hb%, TLC, DLC, ESR, BT, CT, FBS, PPBS, VDRL, LFT, RFT, Lipid profile.

Urine analysis

Stool Routine examination

Posology

* Drugs **-** Kshara Lepa, Kshara tail.

* Dosage - 2gm Lepa and 2 ml Taila 12 hourly daily (Morning and evening)

* Application- Locally on fissure bed.

* Duration- 2 weeks.

METHODS

The method of local application of Kshara in ulcer of fissure was adopted as per the classical technique. It was conducted according to the principles of **Trividhakarma.**[16]

Purva Karma:

* Fitness of patient.

* Routine investigations were insured.

* Written inform consent of patient.

* Panchasakar churna 5gm at bed time with luke warm water.

* Shaving of the perianal area.

Pradhan Karma

* Patient was laid down in the lithotomic position.

* Perianal part was painted and sterile cut sheet was draped.

* Anal margins slightly retracted before application.

* Group A- Kshara Lepa was applied with gloved index finger.

* Group B- soaked gauze piece of Kshara Tail was placed.

* Group C- Kshara Tail followed by Kshara Lepa.

* Then sterilized pad was placed & T-bandage applied.

Paschata Karma

* Avagaha sweda[17] (warm water + Sphatikadi yog) after six hour of each application.

* Advised light diet - vegetables like bottle gourd, leafy vegetables like cabbage, milk, fruits, etc.

* Sufficient intake of drinking water.

* Restriction of - non-vegetarian foods, spicy, oily, alcohol, etc.

* Avoid straining at defecation, long sitting, standing, riding, etc.

* Panchasakar churna 5gm at bed time with luke warm water.

Follow up: 3 months

ASSESSMENT CRITERIA

Pain during defecation

G_3: Pain prolongs for more than one hour after defecation.

G_2: Pain persists from ½ an hour to 1 hour after defecation.

G_1: Pain last up to or less than ½ an hour.

G_0: No pain during defecation.

P/R bleeding during defecation:

G_3: Bleeding profuse.

G_2: Bleeding drop wise.

G_1: Streaking to stool

G_0: No bleeding.

Spasm

G_3: Complete constriction of anal sphincter causing inability to strain.

G_2: Strain found with slight relaxation of the sphincters.

G_1: Tip of the finger enters in the anal canal during per rectum examination.

G_0: No constriction/ spasm.

Constipation

G_1: Present (+)

G_0: Absent (-)

RESULT ASSESSMENT

The clinical assessment of the patients was recorded accordingly.

Table 1: Age & Sex:

Age in Years	Group-A		Group-B		Tota	
	No	%	No	%	No	
Below 40	04	20%	1	5%	5	
41-50	06	30%	07	35%	13	
51-60	06	30%	05	25%	11	
61-70	04	20%	05	25%	09	
Above 70	00	-	02	10%	02	

Table 2: Habit

Marital status	Group-A		Grou	
	No	%	No	
Married	20	100%	20%	
Unmarried	-	-	-	

Table 3: Addiction

Occupation	Group A		Grou
	No	%	No
Housewives	07	35%	06
Businessman	05	25%	04
Office worker	02	10%	03
Agriculture	01	05%	02
Factory worker	03	15%	01
Retired	02	10%	04

Table 4: Nature of Diet

Religion	Group A		Group B	
	No	%	No	
Hindu	16	80%	16	8
Muslim	02	10%	01	5
Christian	02	10%	03	1

Table 5: Bowel Habits

Literacy	Group A		Group B	
	No	%	No	
Illiterates	03	15%	02	1
Literates	17	85%	18	9

Table 6 Prakriti

Socio-economic Status	Group A		Group B		Total	%
	No	%	No	%	No	
Upper Class	01	5%	01	5%	02	5%
Middle Class	14	70%	15	75%	29	72.5%
Lower Class	05	25%	04	20%	09	22.5%

Table 7: Doshic Predominance

Diet	Group A		Group B		Total	%
	No.	%	No.	%		
Mixed	15	75%	15	75%	30	75%
Veg	5	25%	5	25%	10	25%

Table 8: Clockwise position of fissure

Family history	Group A		Group B		Total	%
	No.	%	No.	%		
Absent	08	40%	09	45%	17	42.5%
Present	07	35%	07	35%	14	35%
Not aware	05	25%	04	20%	09	22.5%

Table 9: Clinical Sign & Symptoms

Site	Group A		Group B		Total	
	No.	%	No.	%	No.	%
Forefoot	16	80%	15	75%	31	77.5%
Midfoot	0	-	1	5%	01	2.5%
Rarefoot	04	20%	04	20%	08	20%

Table 10: Improvement after treatment in group A, B & C

Period	Group A					Group B				
	G3	G2	G1	G0	%	G3	G2	G1	G0	%
Before treatment	6	9	5	0	-	6	10	4	0	-
At the end of 1st week	3	12	4	1	5%	0	16	4	0	-
At the end of 2nd week	0	10	9	1	5%	0	13	4	3	15%
At the end of 3rd week	0	6	11	3	15%	0	6	9	5	25%
At the end of 4th week	0	5	10	5	25%	0	2	8	10	50%

N=30-total number of patients, f= frequency, %= percentage of patients got improvement.

Table 11: Clinical assessment of results in Group-ABC

Period	Group A			Group B		
	G1	G0	%	G1	G0	%
Before treatment	17	03	-	17	03	-
At the end of 1st week	15	05	25%	11	09	45%
At the end of 2nd week	12	08	40%	08	12	60%
At the end of 3rd week	07	13	65%	04	16	80%
At the end of 4th week	02	18	90%	00	20	100%

Table 12: Statistical assessment in Group ABC

Period	Group A					Group B				
	G3	G2	G1	G0	%	G3	G2	G1	G0	%
Before treatment	02	15	03	00	-	03	15	02	00	-
At the end of 1st week	02	15	03	00	-	03	15	01	01	5%
At the end of 2nd week	02	15	02	01	5%	02	15	02	02	10%
At the end of 3rd week	02	08	07	03	15%	01	08	10	05	25%
At the end of 4th week	00	05	11	04	20%	00	02	10	06	30%

< Less than, **d. f.** - Degree of freedom, **t** - test for significant, **p** - probability, **BT** - before treatment, **A.T$_1$** - after treatment (7days), **A.T$_2$** - after treatment (14 days)

Cure: 100% complete relief in pain during defecation, bleeding per rectum, constipation and spasm.

Maximum Improvement: Patients those who had got 75 up to 100% improvement in symptoms.

Moderate Improvement: Patients having 50 up to 75% improvement in symptoms.

Mild Improvement: Patients were placed who got 25 up to 50% improvement in symptoms. **Unsatisfactory:** Patients having < 25% improvement in symptoms.

OBSERVATIONS

DISCUSSION

The maximum number of patient i. e. 15 patients (50%) was observed in the age group of 21-30 years (Table 1). In this age group, the victims were most actively engaged in building their carrier giving improper attention to their food and other habits.

During this time, they leaded irregular lives and ate what over were available without much difference. Those factors developed constipation and gave rise to hard faecal matter, which on passing through the anal canal made to fissure.

Male patients were suffered double than female. (Table 1) It might be that female did not represent a true picture and didn't report for treatment unless pain was unbearable so it might be less in female owing to their less exposure to irregular routine of life. The incidence of prolong sitting was reported in 23 (76.7%) patients (Table 2).This was probably due to the constant pressure on the pelvic area which resulted to exert the referral pressure on the blood vessels so as to manifest the pre disposing factor for the disease.

Total 21 patients (69.9%) were recorded to have any kind of addiction (Table 3). Different addiction materials could cause constipation, which leaded in the formation of fissure in ano.

In this study, 24 patients (80%) were reported to consume non-vegetarian diet (Table 4). In non-vegetarian diet spices are in abundant quantity and due to less cellulose almost no residual is formed, which ultimately leads to constipation. The excessive uses of spices like pepper, chillies etc. cause irritation to intestinal tract leads premonitory factors for the anal fissure.

The maximum number of patients i.e. 25 patients (83.3%) was reported to have constipation (Table 5). Vatapittaja predominanat prakriti patients were found more i.e. 17 (56.7%) in number (Table-6). As per involvement of doshas, Vata dosha predominance was reported in 16 patients (53.3%) while 14 patients (46.7%) were found to have Pitta predominance (Table 7). It had all ready been mentioned in classics that pain is mainly due to vitiation of Vata[18] condition, which gives rise to cutting type of pain during and after defecation. The pain was also sometimes associated with burning sensation, which indicated the involvement of Pitta dosha. In relation to clock position in male, fissure was at 6 O'clock due to lack of support and in female it was at 12 O' Clock position (Table 8) due to repeated child birth or trauma caused by the foetal head. Almost all the patients i.e. 50 (100%) were having complaint of pain during defecation and 48 patients (96%) were presented with complaint of constipation (Table 9). It was marked that pain was the cardinal symptom in Parikartika while the main etiological factor of anal fissure was constipation.

DISCUSSION ON RESULT

After the treatment period of 7 days ($A.T_1$) and 14 days ($A.T_2$), the average percentage of improvement in Group ABC was observed as follows. (Table -10)

Group A- The average percentage of improvement in pain during defecation, bleeding per rectum, constipation and spasm after AT_1 was 63.33%, 70%, 55.56% and 55% respectively, which was further improved to 90%, 85%, 77.78% and 80% respectively after AT_2.

Group B- The average percentage of improvement in pain during defecation, bleeding per rectum, constipation and spasm after AT_1 was 76.67%, 90%, 80% and 90% respectively, which was further improved to 93.33%,90%, 90% and 95% respectively after AT_2.

Group C- The average percentage of improvement in pain during defecation , bleeding per rectum, constipation and spasm after AT_1 was 53.33%, 70%, 66.67% and 85% respectively, which was further improved to 91.67%, 80%, 77.78% and 90% respectively after AT_2 .

The statistical assessment showed that the effectiveness of the different forms of Kshara, in different groups, almost coming out to be highly significant (Table no. 11)

PROBABLE MODE OF ACTION

Parikartika is an Agantuja vrana occurring due to trauma with basti netra similar to fissure-in ano which is a painful linear ulcer at the margin of the anus or in anal canal. The healing of this ulcer is different from the healing of any other ulcer

in the body due to the passage of feces the wound is constantly contaminated. There is always a presence of persisting pain in this condition and may be or may not be, associated with bleeding per rectum. Kshara overcomes all these distressed condition because it has effect as tridoshaghna and as well as shodhaka, lekhaka & ropaka properties. More over it has indicated in vrana as supporter of dushta vrana nashaka and has the property to kill the bacteria (krimighna). Kshara is alkaline in nature so it modifies the media and inhibits the growth of the bacteria thus acting as bacteriostatic. It removes the sloughs present in the ulcer and promotes the healing. Kshara controls the bleeding due to its stambhaka[19] guna acting as a sclerotic agent. Experimental studies have also revealed that Kshara has styptic action. The essence, which can be drawn from the above vivid discussion, is that curing of Parikartika is quite satisfactory and encouragative with the help of Kshara-Karma.

CONCLUSION

Male persons taking irregular foods & consuming non-vegetarian were more prone to Parikartika. Persons perform sedentary and prolonged sitting works were more susceptible to Parikartika. Vatapittaja prakruti persons had a predominance of Vata dosha counts more for the incidence of Parikartika. Kshara-karma has tridoshaghna, shodhana, chhedana, bhedana, lekhana, krimighna, stambhana, vilayana and Ropana properties. Hence highly significant result is achieved in acute condition of fissure-in-Ano managed by Kshara-karma. Thus finally it is concluded that Kshara-karma is quite effective in the management of Parikartika (Fissure-in-Ano) and on socio economic point of view, the Kshara applications are technically safe with minimal expenditure suitable for all categories of people.

References

1. Sushruta (2001): Sushruta Samhita. Chi.Sth. 34/16. Ayurved Tatva Sandipika, Ed. By Dr. Ambikadata Shastri, Chaumbika Sanskrit Sansthan, Varanasi, 151.
2. Sushruta (2001): Sushruta Samhita. Shareera Sth. 6/9. Ayurved Tatva Sandipika, Ed. By Dr. Ambikadata Shastri, Chaumbika Sanskrit Sansthan, Varanasi, 52.
3. Surgery of Anus, Rectum & Colon. By, John Golighar with collaboration of Herbort Duthie & Horold Nixon, A. I. T. B. S. Publishers & Distributers. 5th Edition, 2 002: 131-134.
4. Sushruta (2001): Sushruta Samhita. Chi. Sth. 1/88. Ayurved Tatva Sandipika, Ed. by Dr. Ambikadata Shastri, Chaumbika Sanskrit Sansthan, Varanasi, 10
5. Sushruta (2001): Sushruta Samhita. Su.Sth. 11/12. Ayurved Tatva Sandipika, Ed. By Dr. Ambikadata Shastri, Chaumbika Sanskrit Sansthan, Varanasi, 35
6. Agnivesh, Charak Samhita, Charak, dradabala, Charak chandrika hindi commentary, Dr. Brahmananda tripathi, Chaukhambha subharati prakashan, Varanashi, Reprint 2008. Si. Sth. 6/62-67:1241.
7. Agnivesh, Charak Samhita, Charak, dradabala, Charak chandrika hindi commentary, Dr. Brahmananda tripathi, Chaukhambha subharati prakashan, Varanashi, Reprint 2008. Si. Sth. 7/54-57: 1257-1258.
8. Deshpane P J and Sharma K R. Treatment of fistula in ano by a new technique review and follow up of 200 cases. Am J Protocol 24; 1973: 49. Successful non operative treatment of high rectal fistula. Am J Protocol;1976: 39
9. Prof. C. Bhuyan et al. The importance of Ksharasutra in the management of Arsha, Ayu Journal, Vol. 30 /2; April-June 2009: 142-46.
10. The role of Ksharasutra in the management of Hemorrhoids by Dr. Sahu, Prof. Bhuyan et al 2003, Utkal university, Vanivihar, Orissa.
11. Kshara Sootra therapy in fistula-in-ano and other anorectal disorders. By, S. K. Sharma, K. K. Sharma, Kulwant Singh. Rashtriya Ayurved Vidyapeeth (National Academy of Ayurveda). RAV Publication 1994-95: 48-54.

12. Sushruta (2001): Sushruta Samhita. Su.Sth. 11/13. Ayurved Tatva Sandipika, Ed. By Dr. Ambikadata Shastri, Chaumbika Sanskrit Sansthan, Varanasi, 35-36.
13. Sushruta (2001): Sushruta Samhita. Ch. Sth. 6/12. Ayurved Tatva Sandipika, Ed. by Dr. Ambikadata Shastri, Chaumbika Sanskrit Sansthan, Varanasi, 38
14. Sharangadhar, Sharangadhar Samhita, Addhamal , Gudartha Deepika , Pt. Parshuramshastri Vidyasagar, Krishnadas Academy, Varanasi, Reprint 2000, Madham khand-9/1-2:212
15. Malasaya Roga Chikitsa Vignyan, By Prof. C. Bhuyan, Arsha chapter -Indian proctgology society, Orissa, 1st Edition, 2005: 62.
16. Sushruta (2001): Sushruta Samhita. Su.Sth. 5/3. Ayurved Tatva Sandipika, Ed. by Dr. Ambikadata Shastri, Chaumbika Sanskrit Sansthan, Varanasi, 15
17. Sushruta (2001): Sushruta Samhita. Ch. Sth. 8/36. Ayurved Tatva Sandipika, Ed. by Dr. Ambikadata Shastri, Chaumbika Sanskrit Sansthan, Varanasi, 47
18. Sushruta (2001): Sushruta Samhita. Su.Sth.17/12. Ayurved Tatva Sandipika, Ed. by Dr. Ambikadata Shastri, Chaumbika Sanskrit Sansthan, Varanasi, 72.
19. Sushruta (2001): Sushruta Samhita. Su.Sth.11/5. Ayurved Tatva Sandipika, Ed. by Dr. Ambikadata Shastri, Chaumbika Sanskrit Sansthan, Varanasi, 34.