Efficacy of Kshara Application in the Management of Internal Haemorrhoids—A Pilot Study

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Abstract: BACKGROUND: *Ksharakarma* (application of plant alkali) is a process of *kshara* (plant alkali) application called as *pratisaraneeya kshara*. It is a non-surgical procedure of Ayurveda indicated for the management of haemorrhoids. *Kshara* is alkaline in nature derived from a combination of various herbs that is applied to the pile mass with the help of a special slit proctoscope. Haemorrhoids are dilated veins within the anal canal in the sub-epithelial region formed by radicals of the superior, middle and inferior rectal veins. METHOD: 33 patients having haemorrhoids with complaints of mass protrusion, pain and bleeding per rectal of different grade (1st, 2nd, 3rd degree), irrespective of age, sex, religion and occupational status. Under local anaesthesia with 2% lignocaine hydrochloride *Ksharakarma* was done plant alkali of having strong potency of *Achyranthes aspera*. Post procedure dressing was done with *Jatyadi oil* (Medicated Ayurved oil) and ayurvedic laxative was prescribed. RESULT: After 15 days, all major complaints i.e. mass protrusion got reduced, total score of pain before treatment was as visual analogue scale and after treatment was 0 and bleeding was also reduced. CONCLUSION: The result manifests that internal haemorrhoids can be treated with *Ksharakarma* having negligible recurrence rate.

Key words: *Achyranthes aspera*, *Jatyadi oil*, *kshara*, *ksharakarma*, haemorrhoid.

1. Introduction

Ksharakarma is a process of *Kshara* application called as *Pratisaraneeya kshara*. It is a non-surgical procedure of Ayurveda indicated for the management of *Arsha* (Haemorrhoids). *Kshara* is alkaline in nature derived from a combination of various herbs that is applied to the pile mass with the help of a special slit proctoscope. Sushruta has described it as one of the best Para-surgical tool for the successful treatment of various surgical ailments [1]. *Kshara* are superior to the *Shastra* (surgery) and *Anushastra* (para-surgery) and due to its *Tridoshaghna* (power to alleviate all the three *dosha* (Bioelements)) properties to perform *Chedana* (excision), *Bhedana* (incision) and *Lekhana* (scrapping) [2]. It is a type of chemical cauterization. It destroys the unhealthy tissues and promotes healing process. *Arsha*

is muscular enlarged mass in the three *vali* of *guda* (sub mucosa of anal canal). *Ksharakarma* procedure interpreted as “Potential cauterization Therapy” is the specific field taken in the present research work. *Ksharakarma* treatment is found to be suitable and acceptable as compared with the prevalent methods in medical science. The study has been planned with objective to catalogue the role of *Ksharakarma* in managements of 1st, 2nd and 3rd degree internal Haemorrhoids (*Arsha*).

2. Materials and Methods

2.1 Tikshna Apamarga Kshara: (Alkali of *Achyranthes Aspera* with Strong Potency)

The *kshara* was prepared according to classical protocol [1]. It contains *Apamarga* (*Achyranthes aspera* Linn.), *Shukti* (Pearl) powder, *Citarak* (*Plumbago zeylanica* Linn.), limestone, *Shankha* (*conch*).

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2.2 Selection of Patients

33 patients fulfilling the clinical criteria made for the diagnosis of Haemorrhoids (*Arsha*) were selected irrespective of their sex, religion, occupation, etc from the outpatient department (OPD) of Nepal Ayurvedic Panchakarma and Ksharsutra polyclinic, Kirtipur, Kathmandu Nepal.

2.3 Criteria of Diagnosis

Diagnosis was made on the basis of physical, P/R examination i.e. Inspection, palpation and Proctoscopic examination.

2.4 Investigation

All Routine examination of blood, urine, stool and X-Ray were carried out.

2.5 Inclusion Criteria

Patients with age of (20-50 years) having internal piles of 1st, 2nd and 3rd degree were included in this study.

2.6 Exclusion Criteria

The patients of carcinoma rectum, hepatitis, heart diseases, 4th degree piles, external piles, inflamed prolapsed, thrombosed piles. Patients of tuberculosis and pregnant women were also excluded from study.

3. Methodology

In this study, 33 patients who underwent *Ksharakarma* for the treatment of piles for first time in the year 2014 to 2015. Among them, 29 patients *Ksharkarma* was done once and in 4 patients due to larger size of pile mass we did *Ksharkarma* twice. Clinical features of all patients were assessed weekly for four weeks. Every six month after treatment the inquiry was done by telephone about recurrence. *Ksharakarma-Kshara* application was done in operation theatre (OT) by adopting *Trividha Karma* (operative procedure) of *Sushruta* as mentioned below [1].

3.1 Purva karma (Pre-operative)

After taking written informed consent perianal part was painted with antiseptic solution. Patient was kept nil orally for at least 6 hour before the procedure. Injection Tetanus toxoid (0.5ml) I/M was given and xylocain sensitivity test was performed in each patient. I/V line is get opened.

3.2 Pradhana Karma (Operative Procedure)

After the patient was position in lithotomy on the operation table, local anaesthesia was given. The part was painted with antiseptic solution. The diseased part is exposed by special slit proctoscope and examined for site of pile (Fig. 1). The adjoining healthy region of these organs was covered with gauze piece to prevent the spread of *Kshara* on healthy tissue. The *Kshara* was applied on proposed lesion by spatula and was kept on piles mass up to the counting 100 that is 1-2 minutes (Fig. 2).

3.3 Paschat Karma (Post-Operative)

As soon as the sign of *Samyak dugdha* (proper cauterization) appears, the *Kshara* is rapidly neutralized by acidic fluid that is lemon water. Later, on the cauterized part is washed out with distilled water. *Jatyadi ghee* was applied on the cauterized lesion and dressing was done. Patients were allowed to orally sip liquids after 6-8 hour of *Ksharkarma* and were shifted to normal diets. Later patients were advised for *Avagha Sweda* (sitz bath) with *Sphatikadiyoga* (Alum powder) (5g/sitting) up to 5-10 minutes with maintenance of equal warm water.

Tab. *Gandhak rasayan* (anti-inflammatory drug of *ayurveda*) 250 mg three times, Tab. *Sigru guggulu* (antibacterial drug of *Ayurveda*) 1gm three times and dressing with 10 ml *Jatyadhi* oil as (therapeutic enema) was given for 15 days to reduce pain, inflammation and promote healing.

3.4 Criteria of Assessment

All the signs and symptoms were assigned a score

Fig. 1 Second degree piles before treatment.

depending as their severity to assess the effect of the procedure objectively. The following grading pattern was adopted for the scoring (Table 1).

4. Observations and Results

After *Kshara* application, all patients were followed up weekly for 4 weeks. During each follow-up visit relief in signs and symptoms were assessed. There was moderate to mild pain, tenderness, inflammation and brownish black discharge on first visit and second visit. During the third visit, there was no pain, tenderness, discharge or anal stricture and the internal hemorrhoids

Fig. 2 After application of *Kshara*, pile became dark brown in colour.

had completely resolved (Table 2, Fig. 3). *Ksharakarma* shows significant improvement on clinical features of *Arsha* like rectal bleeding, pain in ano and constipation. In overall effect of therapy by *Ksharakarma* showed 69.7% of the patient got cured or complete remission of symptoms (Table 3). Average time taken for complete remission of pile mass was 21 days by *Ksharakarma* without bleeding, pain. Total effect of therapy on the basis of symptomatic relief to patients and observations of the Surgeon are depicted in the Table 4.

Table 1 Grading pattern.

Grade	Severity	Description
Pain	Grade-3	Severe (VAS 9-10) To relieve from pain, analgesic injection are required
	Grade-2	Moderate (VAS 5-8) To relieve from pain, Oral analgesic are required
	Grade-1	Mild (VAS 1-4) Feeling discomfort within tolerable limit, no required of analgesic
	Grade-0	Nil (VAS 0) No discomfort in any manner in the site, no analgesic
Bleeding	Grade-3	Severe Changing sanitary pads or cotton pads minimum 2 times a day
	Grade-2	Moderate Changing of pads once a day only
	Grade-1	Mild No requirement of pad
	Grade-0	Nil Area is completely dry
Tenderness	Grade-3	Severe Patient feeling pain by touching perianal area. Not possible to perform examination
	Grade-2	Moderate Little finger P/R can be done, patient feeling very much tolerable pain
	Grade-1	Mild Index finger P/R done with very much tolerable pain
	Grade-0	Nil Index finger insertion to anal canal without any pain or discomfort

Table 2 Assessment of result.

Follow up visit Total average of all	1st visit (after 7 days)	2nd visit (after 14 days)	3rd visit (after 21 days)
Pain	Moderate	Mild	Nil
Pus	Mild	Normal	Normal
Mucus	Mild	Mild	Normal
Blood	Mild	Normal	Normal
Itching	Mild	Mild	Mild (occasional)
Burning sensation	Moderate	Mild	Normal
Discharge	Mild	Mild	Normal
Sloughing	Mild	Mild	Normal
Tenderness	Moderate	Mild	Nil
Inflammation	Moderate	Mild	Nil
Discolouration	Red	Red	Colour of scar

Table 3 Effect of therapy.

Total Effect	No. of patients	Percentage
Cured/complete remission	23	69.7
Marked Improvement	5	15.1
Improved	3	9.1
Absent in follow up	2	6.1

Table 4 Total effect of Ksharakarma.

Days	Patient's complaints	Surgeon's observation
1st day—Immediately after <i>Kshara</i> application.	Mild pain, moderate burning sensation.	Coagulation of haemorrhoid plexus, blackish discolouration of mass looks like <i>jambu phala</i> (Brownish Black colour).
2nd day	Pain, swelling.	Edema and softening of coagulated mass, with initiation of sloughing.
3rd to 7th day	Blackish discharge, with tissues sloughing, pain, burning sensation.	Sloughing, necrosis of mass.
8th to 14th days	Mild to moderate burning sensation while passing motion lasts for 30 minutes, stools mixed with few drops of bleeding.	Mucosal ulcer on the site, mass get reduced on site.
15th to 21st days	No symptoms except mild discomfort like itching.	Healing of ulcer.
After 21 days	No symptoms.	Scar on the site with complete obliteration and adhering of scar to muscular coat.

Fig. 3 Status of piles 21 days after *Kshara* application.

5. Discussion

Tikshna Apamarga kshara (alkali of *Achyranthes aspera* with strong potency) was applied to the 1st, 2nd and 3rd degree internal haemorrhoids (*Arsha*). It was observed that the pile mass became black in 60 seconds as described in the *Sushruta Samhita* [1, 2]. Lemon juice was used to neutralize the *Kshara* after proper burning of pile mass. The *Kshara* causes coagulation of the haemorrhoid plexus (cauterization of pile mass), necrosis of tissues followed by fibrosis of plexus, adhesion of mucosal, sub mucosal coat helps in prevention of further dilation of veins. It prevents

relapse of regional mucosa of anus and makes permanent radical obliteration of haemorrhoids. During the oozing of blood, which is ceased by the sclerosing effect of the *Kshara*, it coagulates property of protein [3]. Hence there was no chance of bleeding during and after *Kshara* application. The chance of infection is least due to the sustained action of the anti-microbial property of *Kshara* [4]. *Kshara* acts as a fibrolytic agent which inhibits the growth of bacteria [2]. After application of *Kshara* patient was advised to consult regularly on every week and they get feel much better in first week. Every day necrosis pile mass was reducing and after 21 days patients was free from all symptoms with normal scar. In four patients due to bigger size of pile mass we did *Ksharakarma* twice. There were not any complications observed during and after *Kshara* application. Along with *Kshara* application the adjuvant Ayurved drugs like *Gandhak Rasayan* helped to reduce the inflammation and minimize infection [5]. *Sigru Guggulu* is said to be antibacterial and anti-inflammatory which help to inhibit the bacterial infection [6]. *Jatyadi* oil is wound healing and soothing in nature which helped to heal the lacerated mucosa of piles and evacuation of feces smoothly [7]. *Terminalia Chebula* powder is laxative and helped to relief from constipation [8]. Now a day's application of *Kshara* is found to be safe, efficacious and cost effective method for management of internal 1st, 2nd and 3rd degree haemorrhoids. *Ksharakarma* procedure can be conducted at OPD level or can be performed with proper prophylactic measures. It is very effective procedure, no primary and reactionary haemorrhage is caused. It requires less time and patient can perform his/her routine work from next day of procedure. Antibiotic and anti-inflammatory drugs requirements are quite less. There is least possibility of recurrence. There is no adverse effect during the post-operative period, like anal stenosis/stricture, incontinence, bowel irregularities. Compilation of case reports and comparative clinical studies are needed to standardize the treatment protocol and catalogue

outcome measures.

6. Conclusion

This study manifests that *Tikshna Apamarga kshara* was found effective in obliterating the 1st, 2nd and 3rd degree haemorrhoids (*Arsha*) mass. This study finally concluded that a combination of *Ksharakarma*, conservative treatment, diet restriction and life style modification administered over a period of minimum of 6 month is effective in obliterating the 1st, 2nd and 3rd degree pile mass as well as preventing recurrence on a long term basis.

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