



Research Article

COMPARATIVE STUDY OF APAMARGA AND KUTAJA PRATISARANIYA KSHARA IN THE MANAGEMENT OF SECOND DEGREE HAEMORRHOIDS (ARSHA)

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ABSTRACT

Arsha (haemorrhoid) is known to mankind as a common anorectal disease. According to Ayurveda *Mithyaaaharvihara* i.e., unhealthy lifestyle is one of the major aetiological factor of *Arsha* and it is unavoidable in this busy modern lifestyle due to junk food habits and lack of time. This habit causes vitiation of *Doshas* which affect digestive fire (*Mandagni*) and cause constipation. Hence constipation is one of the major causes for hemorrhoid. It is also known as "*Mahagadas*" which means difficult to cure. Acharya Sushruta has mentioned that *Ksharakarma* is one of the effective methods of treating *Gudarsha*. In these research article efforts has been made to treat II^o Haemorrhoids by *Ksharakarma*. **Aim:** To evaluate the effect of *Apamarg* and *Kutaj Pratisaraniya Kshar* in the management of hemorrhoids. **Materials and methods:** An open Randomized comparative clinical study. The entire 40 patients were divided into two groups; Group-A: 20 patients- Application of *Apamarg Pratisaraniya Kshara*, Group-B: 20 patients- Application of *Kutaj Pratisaraniya Kshara*. **Observation and Results:** According to the Chi-Square test the value obtained was 29.565 and p value was 0.0001 which is highly significant in group A. **Conclusion:** As per the complete analytical data and observation of the result found in the both group it has been revealed that patient to whom *Apamarg Kshar* was applied has the better result as compared to the application of *Kutaja Kshara*.

KEYWORDS: Haemorrhoids, *Arsha*, *Kutaja Kshara*, *Apamarga Kshara*, *Kshara Karma*.

INTRODUCTION

Ayurveda is the science of knowledge of Ayu^[1] and the Ayurvedic system of medicine has been prevalent in India since the Vedic period. It is the science dealing with physical, mental and spiritual health; it not only deals with treatment of diseases but also deals with preventive measures of disease and life style management for a healthy living.^[2] Though known since long time, Ayurveda was texted as a separate encyclopedic and authoritative classic book by *Sushruta* in 2000 B.C. since then "*Arsha*" (haemorrhoid) is known to mankind as a common anorectal disease. He mentioned this disease in "*Mahagadas*" of Ayurveda means difficult to cure.^[3]

In general practice it is found that Haemorrhoid is very common Ano-rectal disease which is also known as Piles. Large number of patients attending to Ano-rectal clinic suffers from symptoms of hemorrhoids.

According to Ayurveda "*Mithyaaaharvihara*" is one of the major aetiological factor of "*Arsha*".^[4] It is unavoidable in this busy modern lifestyle due to junk food habits and uncontrollable addictions. This habit

causes vitiation of *Doshas* which affect digestive fire (*Mandagni*) and cause constipation; constipation is one of the major causes for hemorrhoid.^[5]

Two complaints are mainly found in case of hemorrhoid. Some people have only occasional bleeding these are small sized hemorrhoid for which conservative treatment is the choice like bowel softener, suppository and medicine which cause *Deepan*, *Anuloman* and *Samsamana*. However in case of long and pedunculated, prolapsed hemorrhoid needs surgical intervention.

While describing the treatment of "*Gudarsha*", Acharya Sushruta have mentioned four modalities of treatment; 1) *Bhesajam* i.e. treatment by medicines, 2) *Ksharapratيسان* i.e. local application of *Kshara* (alkali of herbal drug), 3) *Agani karma* i.e., cauterization, 4) *Shashtra karma* i.e. surgical treatment.^[6]

Out of these modalities *Kshara karma* is taken in study for II^o haemorrhoid as the signs mentioned by Sushruta for *Arsha* that can be treated by *Kshara karma* resemble that of II degree haemorrhoids.

Kshar karma is one of the best para-surgical procedure and used in *Arbuda* (neoplasia), *Gulma*, *Charmakila* etc.^[7] Used internally and externally also.

Kshar is prepared from indigenous material of organic in origin. Sushruta mentioned *Kshar karma* in hemorrhoid of soft, well-marked, elevated and extended.^[8] It functions by caustic effect and cauterized tissue. Demerits of *Kshar Karma* as compared to *Shalya karma* are it is used in old age people, late pregnancy and in patients who does not fit for surgery.^[9]

Historical view

Sushruta, the father of Indian Surgery, described that *Arsha* is the very difficult to treat and he mentioned the disease in the eight *Mahagadas*.

Vedas are regarded as the earliest source of human knowledge. In *Atharvaveda* "Hymns" related with *Garbha-Dosha Nirwana* indicate affection of Pudendal organ with "*Durnama*".^[10]

A disease which tortures patient's vital force (*Prana*) as enemy is called as *Arsha*.^[11] In modern day to day life of urgency and emergency, patient neglects proper diet and life style habits. It ends in reducing digestive fire (*Agni*) or making it abnormal (*Mandagni*) and it is a main cause of *Arsha*.^[12] *Mandagni* means patient is not able to digest food material at proper speed and time. It result in accumulation or stagnation of half-digested food material (*Aam*) in the form of stool inside or throwing it before time in watery or semisolid form which disturbs *Doshas* at *Guda* region.

Etymology

In *Vachaspatyam*, the word "*Arsas*" derived from the root "R" with suffix *ASUN* having *Agama* "*Shut*" in the formation of word meaning a disease having fleshy sprouts or shoots in the pudendum.

According to Acharya Charak, *Arsha* is the abnormal fleshy growth in Ano-rectal region (*Guda*) and when it is present in other site then it is called *Adhimamsa* e.g. *Nasa*, *Karna*, *Akashi* etc.^[13]

Selection criteria

Inclusion criteria	Exclusion criteria
➤ Primary uncomplicated haemorrhoid of second degree	➤ Inflamed and strangulated haemorrhoids.
➤ Both bleeding and non bleeding type of haemorrhoid.	➤ HIV positive, carcinoma, uncontrolled diabetes, HbsAg positive, Koch's disease, Cirrhosis of liver, etc
	➤ Patients of haemorrhoids with fissure.
	➤ Pregnant and lactating female.

Details of procedure and method to be used in study

Preparation of *Kshara*

Apamarga and *Kutaja* have been mentioned by Acharya Sushruta to be used for making *Kshara*. Preparation of *Apamarg* and *Kutaj Kshar* was done in

According to *Vagbhata* when muscle like fleshy projection kills the life like an enemy and create obstruction in *Gudamarg* (ano- rectal canal) called as '*Vinassati*'. It means cutting, slaughtering, dissecting etc.^[14]

According to Vijay Rakshitt, it is a disease, which kills a man like enemy and used word *Shrunati*. A derivative from *Shru* means tear, to piece.^[11]

Aims and Objectives

- To catalogue the role of *Ksharakarma* in managements of II^o Haemorrhoids (*Arsha*).
- To explore the path based on *Ksharakarma* principles for new research scholars.
- To simplify the basic surgical approaches

Materials and methods

Source of data

Literary source

All classical text of Ayurveda and modern text were referred. All available magazines, journals, research paper, MD dissertation and related source of data from Web were referred.

Type of study: An Open Randomized Prospective comparative clinical study.

Selection: Patients were selected randomly.

Ethical clearance: Clearance from ethical committee of our institute was taken.

Written consent: An informed written consent of all 60 patients included in study was taken in the language best understood by them and procedure of treatment also explained to them.

Medium of study: English, supported by Ayurveda terminology, wherever necessary in Sanskrit.

Study centre: In present study 40 patients that are selected from the OPD of *Shalya*, Sir Sunderlal Hospital Institute of Medical sciences, Banaras Hindu University, Varanasi.

Total number of subject: 40 (20 in each group)

the same method as describe in *Sushruta Samhita*^[15] in the Departmental Laboratory. The plant collected as mentioned in *Sushruta Samhita*, with respect to the qualities of raw drug.

Panchang (whole plants) of *Apamarg* (*Aspergenus recemosa*) in the amount of 20kg is put

into small pieces and dried then burnt into ash and allowed to cool down. Then the ash was collected and dissolved into six times of water and stirred well and kept for overnight.

Obtained solution was filtered through filter paper by 21 times. Then the filtrate was obtained and kept on gas stove for boiling. When solution remained was 2/3 then, the heated *Shukti* was added to the filtrate and the heating is continued for some time.

After some time when solution gets concentrated, the *Prakshepa Dravyas* as mentioned for *Tikshna Kshara* such as *Chitraka (Plumbago Zeylanica)* was added. *Chitraka* was squashed before adding into filtrate. Again the filtrate continued to heat slowly on low temperature, till it changes to brownish viscous fluid.

Finally the 500ml of *Apamargkshara* was obtained. *Tikshnakshar* then cooled down and collected in a dry glass bottle for local application in haemorrhoid.

Similarly *Kutaj (Holarrhena Antidysenterica) Twak* was used for the preparation of *Pratisaraniya Kshar*.

20kg of *Kutaj Twak* was taken and the same procedure was followed which is mentioned for the preparation of *Apamarg Pratisaraniya Kshara* and finally 500ml of *Kutaj Pratisaraniyakshara* was obtained.

Plan of Study

The present study was carried out in Ano-rectal clinic and operation theatre block of Sir Sunderlal hospital, Banaras Hindu University, Varanasi.

40 patients of second degree internal haemorrhoid were selected from the ano-rectal clinic.

A complete clinical examination and history taking was done; Nature of work, Name, Age, Sex, Marital Status, dietary habits, bowel habit, period of straining during defecation, chronicity, character, quantity of bleeding and fleshy mass coming out through anal canal.

All cases were divided into two groups containing 20 patients in each group.

Group A: Application of *Apamarg Pratisaraniya Kshar*.

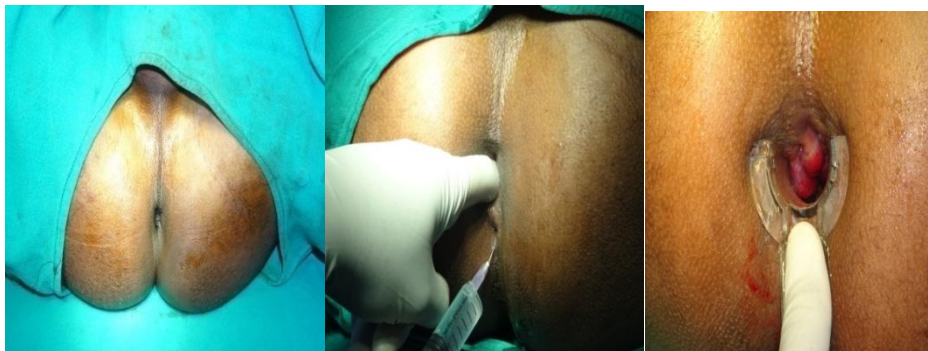
Group B: Application of *Kutaj Pratisaraniya Kshar*.

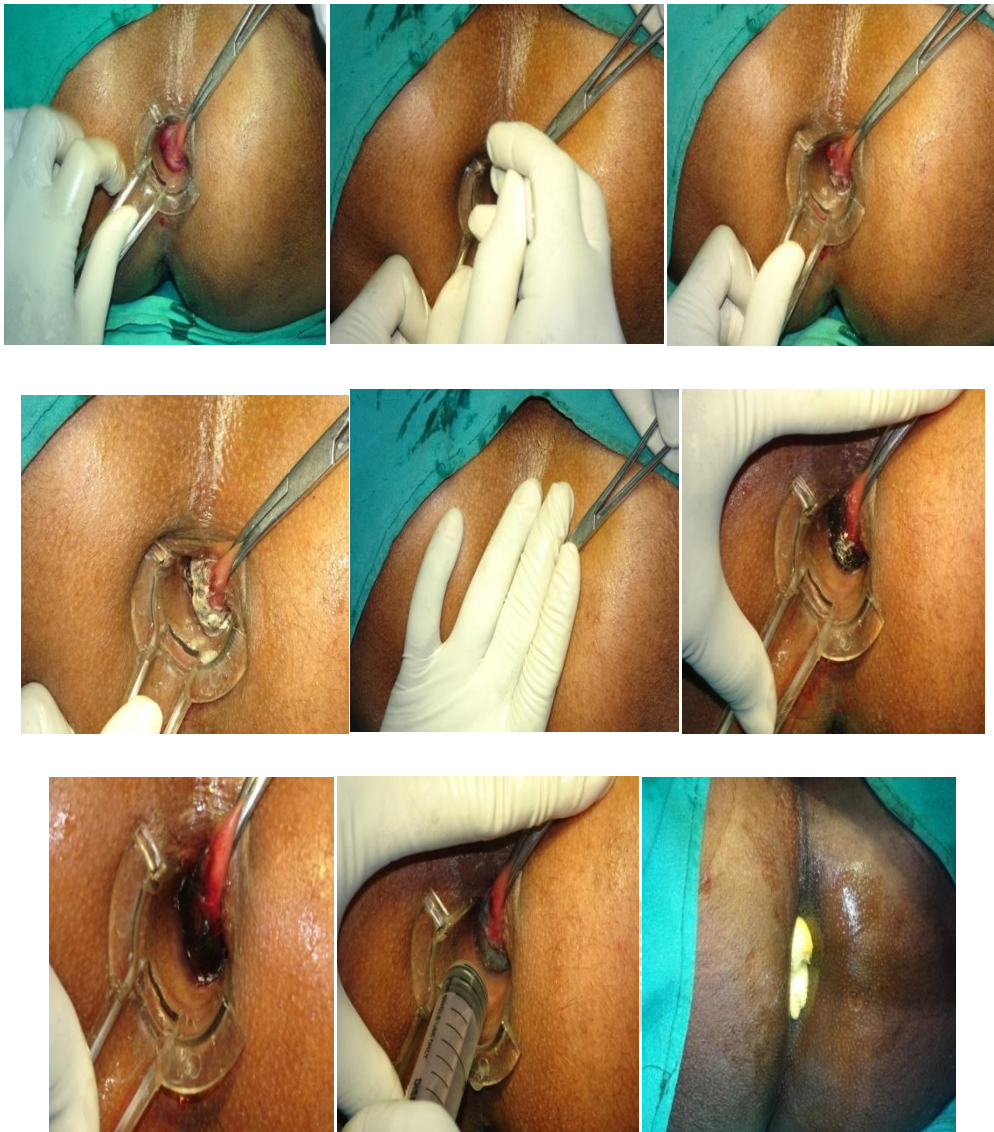
Procedure of Application of Pratisaraniya Kshar

- Patient was taken in lithotomy position.
- The nature of procedure and treatment were explained to the patients.
- A well lubricated proctoscope was introduced into anal canal to visualise the haemorrhoid.
- A swab stick was introduced into *Kshar* and *Ksharpatan* was done on haemorrhoidal mass with special precaution.
- Swab was constantly in touch of haemorrhoid mass and on base so that after some time the color of haemorrhoid becomes *Krishna jambu*.
- After this, remaining *Kshara* was removed by spreading *Nimbu Swaras* and Proctoscope was removed. After completion of procedure patient was sent home.
- In case during application of *Pratisaraniya Kshara* if there were more than one internal haemorrhoids found then they were treated as the same manner at the interval of one week.

According to above mentioned procedure application of *Kutaj Pratisaraniya Kshara* was also done.

Procedure of the application of Pratisaraniyakshara





Follow up: 7 days, 15 days and 21 days
 During follow-up patient's complaints and finding were carried out and recorded.

Criteria of Assessment

Ruja (Post-operative pain)

Symptom	Grading
No pain	1
Pain during defecation	2
Pain during and other time also	3

Bleeding per rectum (Rakta-strava)

Symptom	Grading
No bleeding	1
Bleeding during only defecation	2
Bleeding irrespective to defecation	3

Size of pile mass

Symptom	Grading
Complete reduction of pile mass	1
Slight reduction in size of pile mass	2
No changes in size of pile mass	3

Color of pile mass

Symptom	Grading
<i>Pakvajambuphalavarna</i>	1
<i>Ishat Krishna varna</i>	2
<i>Slight Raktavarna</i>	3

Observation and results

Table 1: Ruja (Pain) Post Operative

Sr.No	Ruja (Pain)	Group A		Group B		Total	
		No. of Pt	%	No. of Pt	%	No. of Pt	%
1	No pain	16	80%	2	10%	18	45%
2	Pain during defecation	4	20%	18	90%	22	55%
3	Pain during defecation and other time also	0	0%	0	0%	0	0%
	Total	20	100%	20	100%	40	100%

Chi-Square = 19.798 p=0.000 highly significant

Above table shows that in Group A 16 out of 20 patients were showing no pain and 4 out of 20 were showing pain during defecation after operation with *Apamarga Kshara*. So the treatment by *Apamarga Kshara* was effective. Whereas in Group B 18 out of 20 patients were showing the symptom of pain during defecation and rest were having no pain after treatment with *Kutaja Kshara*. So the treatment with *Kutaja Kshara* was not so effective.

Table 2: Raktasrav (Post operative bleeding)

Sr.No	Raktasrav	Group A		Group B		Total	
		No. of Pt	%	No. of Pt	%	No. of Pt	%
1	No bleeding	17	85%	7	35%	24	60%
2	Bleeding during defecation	3	15%	13	65%	16	49%
3	Bleeding irrespective to defecation	0	0%	0	0%	0	0
	Total	20	100%	20	100%	40	100

Chi-Square= 10.417 p=0.001 highly significant

Above table shows that in Group A, 17 Patients out of 20 were having no symptoms of bleeding after treatment with *Apamarga Kshara* and rest were having the symptom of bleeding during defecation. So the treatment with *Apamarga Kshara* was effective in relieving the symptom of bleeding during defecation.

Where as in Group B, 13 patients out of 40 were having the symptom of bleeding during defecation and rest was showing no bleeding after treatment with *Kutaja Kshara*. That means *Kutaja Kshara* was not so effective in relieving the symptom of bleeding.

Table 3: Post operative size of pile mass

Sr.No	Size of pile mass	Group A		Group B		Total	
		No. of Pt	%	No. of Pt	%	No. of Pt	%
1	Complete reduction	18	90%	0	0%	18	45%
2	Slight reduction	2	10%	16	80%	18	45%
3	No change in size of pile mass	0	0%	4	20%	4	10%
	Total	20	100%	20	100%	40	100%

Chi-Square= 32.889 p=0.00 highly significant

Above table shows that in Group A, 18 patients out of 20 were showing reduction in pile mass and rest were showing slight reduction after treatment with *Apamarga Kshara*. Hence the treatment with *Apamarga Kshara* was effective in reducing the size of pile mass.

In Group B, 16 patients out of 20 were showing slight reduction and rest 4 was showing no change in size of pile mass. So the treatment with *Kutaja Kshara* was not effective in relieving the symptom of size of pile mass

Table 4: Post operative change in color of pile mass

Sr.No	Color of pile mass	Group A		Group B		Table	
		No. of Pt	%	No. of Pt	%	No. of Pt	%
1	<i>Pakvajambuphalavarna</i>	19	95%	1	5%	20	50%
2	<i>Ishat Krishna varna</i>	1	5%	18	90%	19	47.5%
3	<i>Ishatraktavarna</i>	0	0%	1	5%	1	2.5%
	Total	20	100%	20	100%	40	100%

Chi-Square= 35.208 p= 0.00 highly significant

Above table shows that in group A 19 patients out of 20 were having color of post operative pile mass as *Pakvajambuphalavarna* and 1 patient was having color slightly blackish.

Where as in group B only one patient out of 20 was having the post operative color of pile mass as *Pakvajambuphalavarna* and 18 out of 20 were having post operative color slightly blackish and 1 out of 20 was having color slightly pinkish.

It means in Group A the treatment of pile mass by *Apamarga Kshara* was effective, in Group B treatment by *Kutaja kshara* was not so effective.

Table 16: Result

Sr. no	Result	Group A		Group B		Total	
		No. of Pt	%	No. of Pt	%	No. of Pt	%
1	Complete remission	17	85%	0	0%	17	42.5%
2	Mild improvement	3	15%	20	100%	23	57.5%
3	No improvement	0	0%	0	0%	0	0%
4	Deteriorated	0	0%	0	0%	0	0%
	Total	20	100%	20	100%	40	100%

Chi-Square= 29.565 p= 0.000 highly significant

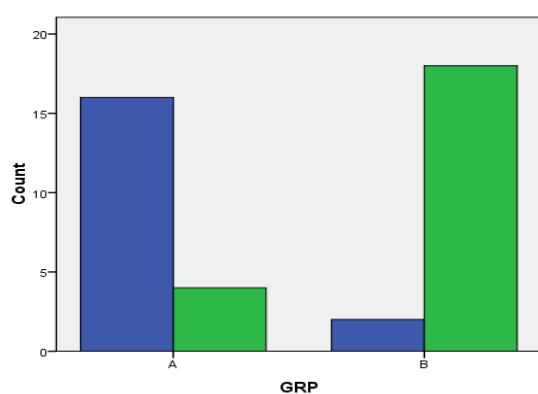
Above table shows that in Group A 17 patients out of 20 were showing result as complete remission of pile mass while rest 3 patients were showing mild improvement after treatment with *Apamarga Kshara*. Hence the treatment with *Apamarga Pratisharniya Kshara* was highly effective in treatment of Haemorrhoids.

In Group B all 20 patients were showing mild improvement after treatment with *Kutaja Kshara*. Hence treatment with *Kutaj Pratisharniya Kshara* was not so effective in treatment of Haemorrhoids.

Graphical representation of data

Graph (1): *Ruja* (post operative pain)

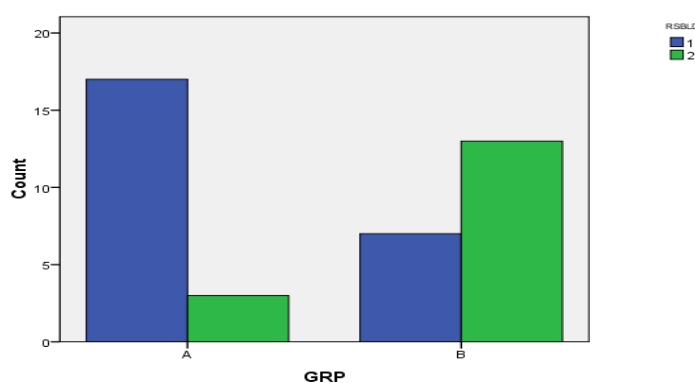
Bar Chart



- 1- No bleeding
- 2- Bleeding during defecation

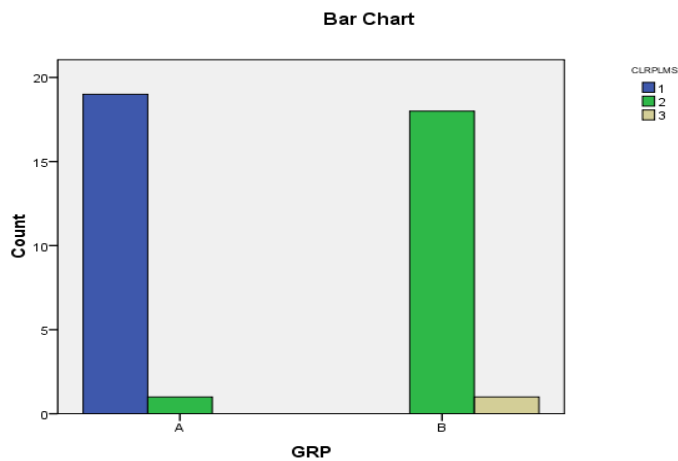
Graph (2): *Rakta Strav* (Bleeding per rectum)

Bar Chart



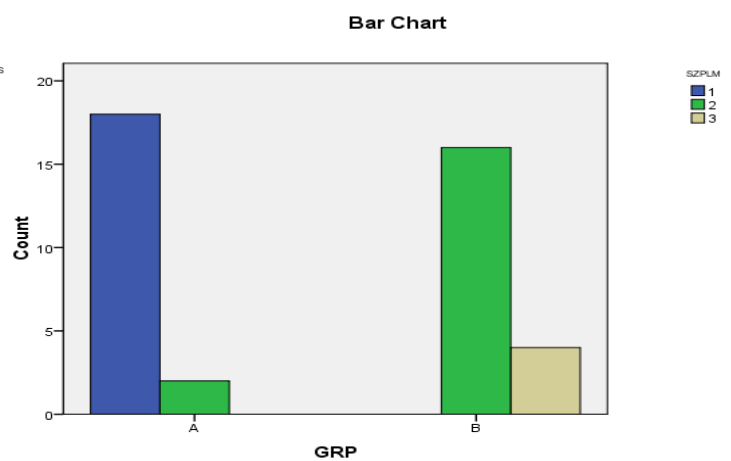
- 1- No pain
- 2- Pain during defecation

Graph (3): Post operative change in Color of pile mass



- 1- Pakvajambuphalavarna
- 2- Ishat Krishna Varna
- 3- Ishat Rakta Varna

Graph (4): Size of pile mass after application of Kshara



- 1- Complete reduction of size of pile mass
- 2- Slight reduction of size of pile mass
- 3- No change in size of pile mass.

DISCUSSION

Bowl habit is the prime factor in the development of haemorrhoid. In this study large number of patients was having the complaints of incomplete bowel habit. Period of straining was also one of the major contributory factors. This study reveals that longer duration of straining during defecation increase the incidence of disease. During straining the haemorrhoidal plexus are engorged followed by the obliteration of vessels and stretching of Anal cushion causing haemorrhoid.^[16]

By Hiltunen and Matikainen (1985) electrophysiological and Manometric study have been done and concluded that internal sphincter activity play an important role in the pathogenesis of haemorrhoid. Maximum internal haemorrhoid is present in the primary pile position which is 3, 7, and 11 o'clock. If the anus is assumed as a dial of clock while patient is in lithotomy position, then arrangement of branching behavior of superior rectal artery and attempt was made to observe the incidence at primary site.^[17] In this present study it was found that out of the total number of patient, 10% haemorrhoid were at the 3 o'clock position, 17.5% were at 7 o'clock position, 2.5% were at the 11 o'clock position, 10% were at the 3 and 7 o'clock, 7.5% were at the 3 and 11 o'clock position, 22.5% were at the 7 and 11 o'clock position and 30% were at the all 3, 7, 11 o'clock position.

Probable Mode of action of Kshara

Response of treatment was observed in the both group in terms of post-operative pain, post-operative bleeding, post-operative reduction of size of pile mass, and color change after the application of both Pratisaraniya Kshara.

20 patients were under the application of Apamarg Pratisaraniya Kshara and remaining 20 patients were under the application of Kutaj Pratisaraniya Kshara, and patients were observed for the 21 days.

According to the Acharya Sushruta, 4 modes of haemostatic procedure are like Sandhana, Skandana, Pachana and Dahana.^[18] Kshara is chemically caustic in nature. It has got the ability to cauterize the unhealthy tissue and it is used in the Dahan karma. Kshara contain some drugs which are of Kashaya Rasa.^[19] Their action is Sandhankarama. Bhasma like Shukti was added to the Kshara during the preparation of Kshara, its action is to perform Pachana karma. Thus Kshara may be said to have its action through all the mode of haemostatic procedure. Local application of Kshara was done on the base and on the haemorrhoidal mass which was present above the dentate line, during the application of Apamargkshara the color of haemorrhoid changes from reddish blue to Pakvajambuvarna, and in case of Kutaj Pratisaraniya Kshara such changes were not observed. Kshara causes Ksarana (destruction), i.e. chemical cauterization. It also causes Kshanana (inflammation) on the base of haemorrhoidal mass. The inflammatory reaction follows proliferation of fibroblast, obliteration of haemorrhoidal plexus and prevents bleeding and fibrosis and finally the fixation of anal cushion to underlying structure which further prevent protrusion and bleeding.

CONCLUSION

- Apamarg Pratisaraniya Kshara can relieve post-operative pain.

- *Apamarg Pratisaraniya Kshara* can help in reduction of post-operative size of pile mass.
- *Apamarg Pratisaraniya Kshara* can help in reduction of post-operative bleeding per rectum.
- *Apamarga Pratisaraniya Kshara* effectively changes the color of pile mass after its application.
- *Apamarg Kshar* has the better result as compared to the application of *Kutaja Kshara*.

Drawbacks of *Kutaja Pratisaraniya Kshara*

After the application of *Kutaja Pratisaraniya Kshara* it is observed that,

- It takes more time for color change of pile mass
- Post-operative reduction in the size of pile mass is sluggish
- Post-operative bleeding per rectum persists.

It indicates that mode of action of *Kutaja Pratisaraniya Kshara* is inferior to *Apamarga Pratisarany Kshara*.

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