



Research Article

CLINICAL EVALUATION OF LEECHING AND SURGICAL EXCISION IN THE MANAGEMENT OF EXTERNAL THROMBOSED HAEMORRHOIDS

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ABSTRACT

Hemorrhoids is a disease, which is very specific to human race only, due to its erect posture. According to *Ayurveda* the disease comes under the heading of *Maharogas* because it has four major qualities attributed to *Maharogas*, which are *Maramshraya Dirghakalanubandhi*, *Dushchikitsya* and *Tridosha* involvement. Since the dawn of civilization, this notorious and problematic disease is not uncommon. If not treated properly or neglected it may lead to so many complications like thrombosis, strangulation, gangrene etc. Similarly for the treatment of piles, there are number of measures starting from injection therapy to the latest cryosurgery and laser therapy. *Acharya Sushruta* had advocated to carry out *Raktamokshana* in *Shushkarsha*. Amongst the different methods of *Raktamokshana*, *Jalaukavacharana* being a simple procedure. This procedure is painless and can be carried out easily. In the present study an effort has been made to compare an old para-surgical modality with the existing modern surgical modality in the management of external thrombosed haemorrhoids.

KEYWORDS: *Sushruta, Mahagadas, Arsha*, External Thrombosed Haemorrhoids, Leeching.

INTRODUCTION

Among all the ano-rectal diseases, *Arsha* seems to be an entity, which was very clearly known to the ancient *Ayurvedic* authorities, which simulates the clinical picture of haemorrhoids^{1, 2, 3}.

The medical knowledge has advanced to a great deal in all spheres of the science today, but the disease pile still seems to be a challenge to the medical science, as the available medicinal treatment is only palliative and not a curative measure, whereas the surgical approach to the problem is not increasing the courage because of its untoward post-operative complications.^{5, 6, 7}

The disease *Arsha* has got so many complications, among them thrombosis seem to be most troublesome and are in need of emergency line of treatment. In some of cases, unfortunately, because of the local pathological changes, thrombosis sometimes check the surgeon to adapt any surgical procedure, whereas, the medical line of treatment has hardly any role in these condition, so leaves a scope to find out a method which should not be harmful to the tissues, at the same time prove to be an effective one.^{4, 5, 7}

From the various methods in classical texts, *Raktamokshana* with leech application has been taken up for the present study.²

Further, external thrombosed piles with considerable oedema of the anal margin require an emergency line of management, because due to sufficient oedema, it is not possible to go for operative measure with safety. At the same time most of the cases of both these conditions, which do not respond to the palliative lines of treatment, then the chance of infection, ulceration and in some cases suppuration and fistula may ensue^{5, 6, 7}. Hence, it is necessary to go for a method, an attempt has been put forth to evaluate the efficacy of *Jalaukavacharna* - a variety of *Raktamokshana* in patients suffering from condition stated above.^{1, 2, 3}

AIMS & OBJECTS

1. To evaluate the efficacy of *Jalaukavacharana* in the management of *Arsha*.
2. To provide a simple and painless management in *Arsha* by means of *Jalaukavacharana* (Leeching).

3. To standardize the procedure of *Jalaukavacharana* (Leeching).

CLINICAL STUDY

The patients were selected from OPD & IPD of Department of Shalya Tantra of shri J.G.C.S.Ayurveda Medical college ghataprabha, Karnataka.

CRITERIA OF SELECTION

The patient having thrombosed piles such as bluish coloured solid round swelling at the anal orifice, tenderness and pain were selected for the present study. For the clinical study the selected patients will be distributed into two groups.

PLAN OF STUDY

Prior to the commencement of the therapy in the selected patients, general information of both groups of patients and the disease were given as below:

- A complete history of the disease along with complaints were recorded as per the specially prepared proforma for the ano-rectal disorders.
- Classification of the disease as well as diagnosis on local examination was made both from modern and Ayurvedic lines including *Prakriti* of the patients.
- In all the patients, general systemic and local examination was carried out. The findings of the local examination were studied under the following headings -

1. Inspection

- Condition of the perianal skin including the colour.
- Number of externally thrombosed piles along with clockwise position.
- Other associated lesions like fissure, fistula, piles.

2. Palpation

It includes tenderness, indurations, swelling etc.

d. Laboratory investigations:

- Blood investigations - bio-chemical and pathological
- Bleeding time and clotting time.
- Stool and urine pathological examination of microscopic and routine.

Treatment Schedule

The treatment schedule was distributed into two groups:

Group I: 15 patients were treated with *Jalaukavacharana* (Leeching).

Group II: 15 patients were treated with surgical excision.

Procedure of *Jalaukavacharana*

The patients were belonging to the emergency conditions assessed on the basis of signs and symptoms, respiration, pulse, blood pressure, apprehensive look, anxiety etc. Hence, it was not possible to give the patient, the known procedures of *Purvakarma* for leech application. Therefore all the patients were subjected to the application of leech to the relief to the patient.

1. Materials required

Leeches	-	Warm and cold water
Bowls 3 - 4 in number	-	Gloves
Gauze pieces	-	Cotton pads
<i>Haridra</i> powder	-	Bandages

2. *Purvakarma* for leech

To activate the leeches, they were put in a bowl containing a solution of *Haridra* and water for a period of 15 - 20 minutes; later on leeches were cleaned by keeping them in another bowl of pure water for 10 to 15 minutes.

Position

The patients were advised to lie down in lithotomy or lateral (left or right) position depending on the convenience of the patient, as well as, severity of symptoms. Patients with severe symptomatology were kept in lateral position, whereas, patients with less severity were put in lithotomy position.

Procedure

The posterior sucker of the leech was held in one hand and anterior sucker was placed at the site of application, where the leech was expected to be fixed.

Thereafter, the posterior sucker was released from the hand and attaches to the surrounding perianal region. In case of strangulated piles, it was applied over the tip of the strangulated mass, whereas, in cases of thrombosed external piles it was applied over the most prominent part of the swelling. Thereafter, the leeches were covered with a gauze piece to keep it moist over the gauze piece; few drops of water were poured on and often. As soon as the leeches showed the signs of elevated head and pumping action of the anterior sucker region, the time was noted, when the leeches got detached at their own or otherwise, the time was once again noted.

Precautions during application

- Due care was taken, so that the leeches do not enter the anal canal.

2. With the onset of symptoms like burning, itching, pain etc. the leeches were removed by sprinkling *Haridra* powder or *Saindhava*.

Frequency of application

Since the present study was aimed at to evaluate the efficacy in emergency conditions, *Jalaukavacharana* was instituted only once.

Pashchat karma

Some after the leeches got detached, the site of application was cleaned with *Triphala Kwatha* (freshly prepared). Thereafter sprinkling of *Haridra* powder was done, followed by a "T" bandage. Patients were kept under observation in the hospitals for a minimum period of 6 to 7 hours in cases of OPD patients. Reduction in the size of the pile mass, local swelling bleeding (persistent) and other signs were recorded.

Further, blood pressure, pulse, temperature, respiration and general condition of the patients were observed and thereafter the patients were allowed to go home (OPD case) with the instruction to have *Panchavalkala Kwatha* or *Triphala Kwatha* - Sitz bath every 6 hourly and to report daily for three days, followed by one week, two week, one month and up to two months consequently and to take *Erandabhrushta Haritaki* 10 g at bed time daily for one month.

Procedure Of Surgical Excision

Pre operative procedure

- Preparation of the operative part was done in the ward at night before operation.
- Xylocaine test dose was given to all the cases selected in this group to rule out sensitivity to xylocaine.
- A soup water enema was given at 10 PM night before operative.

Operative procedure

Under local anaesthesia the haemorrhoid is bisected and the two halves are excised together with ½ inch of the adjacent skin. This leaves a pear-shaped wound which is allowed to granulate or in some big sized haemorrhoid cases suturing was done.

Post operative procedure

Dressing was done daily with Betadine ointment for 5 - 7 days.

CRITERIA FOR ASSESSMENT

- ❖ Reduction in size of mass.
- ❖ Improvement in the severity of symptom, which were present before treatment.
- ❖ Complete disappearance of pile mass.

The obtained results have been analyzed in following parameters:

1. Cured : More than 90% relief in symptoms.
2. Improved : 65 - 90 % relief in symptoms.
3. Moderately improved : 50 - 65 % relief in complaints.
4. Unchanged : Below 50 % of relief in symptoms.

FOLLOW UP STUDY

The patients admitted in IPD have daily attended and their general condition was noted and recorded. The patients of OPD were checked up weekly once and the changes were observed. The follow up study of patients was conducted for 2 months after the completion of treatment.

OBSERVATIONS

1. It was observed that mostly this disease occurred in Hindu, male from middle class who were in 5th decade of life.
2. Maximum number of patients were serviceman i.e. 53.33%, 16.66% of patients were housewives and labors. 13.33% of patients were drivers.
3. Maximum number of patients have irregular bowel habit that has 23 (76.66%) and 7 (23.33%) patients have regular bowel habit.
4. Maximum number of patients had *Vatapitta Prakriti* i.e. 17 (56.66%) second major group had *Vatakapha Prakriti* i.e. 8 (26.66%). In *Kaphapitta Prakriti* group have 5 (16.66%) number of patients.
5. Maximum number of patients had poor appetite (83.33%) hard stool consistency (70%), irregular bowel habit (76.66%), *Krura Koshta* (66%), *Mandagni* (53.33%) and spasmodic sphincter tone (93%).
6. Maximum pile masses have been 0.5-1.0 cm i.e. 13 (43.33%). 10 (33.33%) pile masses have been 1.0-1.5 cm and 7 (23.33%) pile masses have been 1.5 -2.0 cm.
7. Maximum number of pile masses 13 (43.33%) have situated in 70' clock position. 8 (26.66%) of pile masses have situated in 11 O' clock position where as 7 (23.33%) of pile masses have situated in 3 O' clock position.
8. Maximum number of pile masses i.e. 18 (60.00%) of Pile masses had firm consistency where as 8 (26.66%) of pile masses had soft

- consistency and 3 (10.00%) of masses had elastic consistency.
9. Maximum number of patients had spasmodic sphincter tone i.e. 93.33% and 6.66% of patients had normal sphincter.
 10. Maximum number of *Arsha* were having bluish colour (43.33%), 0.5 - 1 cm in size (43.33%), *Jalaukhamukhavat* shape (50%), ext. site (100%), *Klinna* character (60%), *Visarpini* surface (46.66%), firm consistency (60%).
 11. It was observed that most of the patients had complaints of *Vedana* (100%), *Guda Kandu* (73.33%), *Vibandha* (80.00%), *Guda Daha* (60.00%) and *Shotha* (83.33%).
 12. Maximum number of wounds had got healing in 8 - 11 days i.e. 7 (46.00%) and 6 (40.00%) had healed in 6 - 8 days, 1 (6.66%) had healed in 3 - 5 days, but 1 (6.66%) had also healed in more than 11 days.
 13. Total WBC count of blood taken out was more than that of venous blood in 100 % of patients.
 14. Neutrophil count of blood taken out was more than that of venous blood in 86.66% of the patients.
 15. Lymphocyte count of blood taken out was more than that of venous blood in 66.66% of patients.

Investigation chart

Sr. No. of patients	Total Count		↑ ↓	Neutrophils		↑ ↓	Lymphocytes		↑ ↓
	Venous Blood	Letted Blood		Venous Blood	Letted Blood		Venous Blood	Letted Blood	
1	7200	8200	↑	45	60	↑	50	55	↑
2	7700	8900	↑	59	65	↑	37	45	↑
3	8200	8900	↑	58	71	↑	36	50	↑
4	6700	7500	↑	56	60	↑	39	43	↑
5	6400	7900	↑	55	66	↑	42	30	↓
6	5400	7800	↑	68	59	↑	29	38	↑
7	7700	10100	↑	52	71	↓	33	27	↑
8	7600	12300	↑	53	68	↓	42	32	↑
9	6900	8200	↑	65	38	↑	31	55	↑
10	10300	11200	↑	57	76	↑	38	21	↓
11	15200	15900	↑	63	75	↑	28	35	↑
12	10400	10800	↑	56	69	↑	42	29	↓
13	9300	10950	↑	55	72	↑	38	27	↓
14	8400	10200	↑	56	61	↑	40	34	↓
15	7700	9300	↑	56	70	↑	36	46	↑
Percentage = 100%				86.66%		66.66%			

Table: Relief of *Jalaukavacharana* and surgical excision on cardinal symptoms of *Arsha* in 30 patients (in percentage)

	Relief in <i>Jalaukavacharana</i>	Relief in surgical excision
<i>Vedana</i>	97.37	84.21
<i>Guda kandu</i>	86.36	85
<i>Vibandha</i>	63.16	52.60
<i>Guda daha</i>	90.00	68.42
<i>Shotha</i>	96.72	80.56
Size	95.45	90.91

Table: Effect of *Jalaukavacharana* and surgical excision on cardinal symptoms of *Arsha* in 30 patients

Symptom	Group	B.T.	A.T.	X d (%)	S.D.	S.E.	"t"	"P"
<i>Vedana</i>	I	2.53	0.07	97.37	0.52	0.13	18.50	<0.001
	II	2.53	0.40	84.21	0.64	0.17	12.91	<0.001
<i>Guda kandu</i>	I	1.83	0.25	86.36	0.51	0.15	10.65	<0.001
	II	2.00	0.30	85.00	0.67	0.21	7.96	<0.001
<i>Vibandha</i>	I	1.46	0.54	63.16	0.49	0.14	6.74	<0.001

	II	1.60	0.60	52.60	0.60	0.19	4.68	<0.01
Guda daha	I	1.43	0.14	90.00	0.49	0.18	6.97	<0.001
	II	1.90	0.60	68.42	0.67	0.21	6.09	<0.001
Shoatha	I	5.08	0.17	96.72	7.91	2.28	2.28	<0.05
	II	2.57	0.50	80.56	0.47	0.13	0.13	>0.05
Size	I	1.47	0.07	95.45	0.83	0.21	6.55	<0.001
	II	2.20	0.20	90.91	0.65	0.17	11.83	<0.001

RESULTS

The total effect of *Jalaukavacharana* in Group-I is as follows:

Cured	:	53.33%
Improved	:	26.66%
Moderately improved	:	13.33%
Unchanged	:	6.66%

The total effect of surgical excision in Group II was as follows:

Cured	:	13.33%
Improved	:	20.00%
Moderately improved	:	26.66%
Unchanged	:	40.00%

PROBABLE MODE OF ACTION

Leech saliva contains hirudine, a potent anticoagulant. Hence this principle acts as thrombolytic and dissolves the clot of blood in thrombosed external piles and thus gives relief in the condition. Surgical excision helps in evacuating the clot from the pile mass through surgical incision.

CONCLUSIONS

1. *Jalaukavacharana* can be done as a OPD level procedure and do not require any anaesthetics where as surgical excision needs local anaesthesia and also to be done in minor operation theatre.
2. Significant relief in symptoms like *Gudadaha*, *Vedana*, *Vibandha*, *Kandu* etc. were noticed.
3. Maximum effect of the procedure was got in group I which shows that *Jalaukavacharana* is highly effective in thrombosed external piles.
4. *Jalaukavacharan* is totally painless therapy than surgical excision.
5. During the *Jalaukavacharana*, antibiotic, antiseptic and analgesic drugs are not required.

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6. Surgical excision has got post-operative pain, inflammation and sometimes fibrosis.
7. The treatment *Jalaukavacharana* is more effective in reducing the size and symptoms of thrombosed piles than surgical excision.

REFERENCES

1. Agnivesh, Charak Samhita revised by Charak and Driddhabal with Ayurved Dipika commentary by Chakrapanidatta edited by Vaidhya Yadavaji Trikamji Acharya, Chaukhamba Prakashan, Gopal mandir Lane, K-37/116, Varanasi (India) edition reprint - 2009.
2. Sushruta, 'Sushruta Samhita' with the Nibandhasangraha commentary by Shri. Dalhanaacharya, Edited by Yadavji Trikamji Acharya, Chaukhamba Surbharati Prakashan, Gopal Mandir Lane, K37/117 Varanasi, (India) Reprint : 1994.
3. Astanga Hridayam of Srimadvagbhata edited with "Nirmala" Hindi commentary along with special deliberation etc.by Dr.Brahmanand Tripathi, Chaukhamba Sanskrit Pratishthan, Delhi, 2nd edition 2007.
4. S.K.Sharma, K.R.Sharma And Kulvant Singh, Kshara Sutra Therapy in Fistula in Ano and Other Ano-rectal Disorder, Rastriya Ayurveda Vidyapeeth (RAV), 1994-95.
5. S.Das- A Concise text book of surgery, published by Dr.S.Das(FRCS) 5th edition 2008.
6. S.Das-A practical guide to operative Surgery, published by Dr.S.Das(FRCS) 5th edition 2008.
1. John Goligher, Surgery of the Anus, Rectum & Colon, All India Traveller Book Series, 5th edition, 1992, Bailliere Tindall, london.

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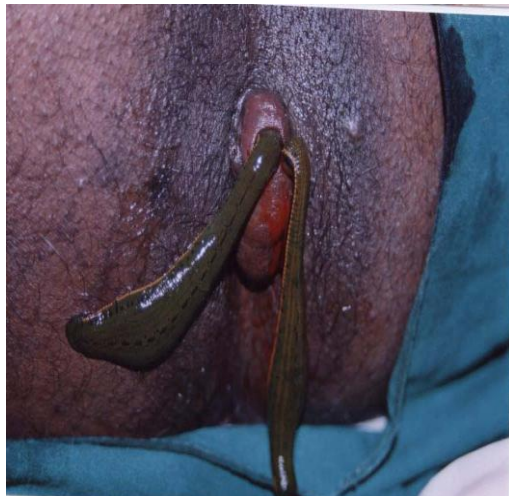
Photographs of Leeching



Jalaukas in Beaker



Leeching in thrombosed pile mass



Leeching in thrombosed pile mass



After view of *Jalaukavacharana*

Photographs of Surgical Excision



Before



During Immediately



after