

LEECH THERAPY IN THROMBOSED PILES

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ABSTRACT

'*Arsha*' (haemorrhoid) is an ailment that affects all the economic groups of population. The disease has its own complications like severe haemorrhage, inflammation and thrombosis which lead to severe pain disabling to perform routine work. The surgery is contraindicated when the haemorrhoids are associated with secondary complications. Hence, there is a need to look into the alternatives. Keeping this in view the present study is conducted. On the basis of clinical examination and laboratory investigations twenty patients of either sex were selected randomly from the outpatient department (OPD) and inpatient department (IPD) of *Shalyatantra*, Hospital, University college of *Ayurved*, Jodhpur. Under aseptic precautions and after conducting pre-operative procedures the patients were subjected to the *Jalaukawacharna* (application of leech) for two sittings with a gap of two days. The parameters like pain, oedema, discoloration and tenderness were observed before and after the leech therapy. The assessment of the relief was made on the basis of scores given to the above parameters. The Percentage of relief in pain, oedema, discoloration, tenderness was 91.66%, 95.24%, 91.38%, 80.56% respectively. Moreover it is observed in the study that, pus and mucous discharge have been reduced after leech application. Leech application is beneficial and increases the quality of life in patients suffering with thrombosed piles.

Keywords: *Arsha*, haemorrhoids, *Jalaukawacharana*, thrombosed piles

INTRODUCTION

Ayurveda, the Indian system of medicine comprises of eight different specialties in which *Shalyatantra*, the surgical school of thoughts has got prime importance. *Acharya Sushruta*, (Su.Su.33/4-5) father of surgery has considered *Arsha* (haemorrhoids) in *Ashta-mahagada* (eight major diseases). The incidence of haemorrhoids is common among all economical classes of population. Though the disease is within the limits of management, it has its own complications like severe haemorrhage, strangulation, thrombosis, etc. Thrombosed piles possibly occur due to high venous pressure causing severe pain that leads to a tendency of avoiding defecation, leading to hardening of stools causing constipation, which further exacerbates

bleeding. Hence its management in initial stages will become mandatory.

Acharya Sushruta has considered four curative measures for the treatment of *Arsha* (haemorrhoids).

1. *Bheshaja*
2. *Kshara Karma*
3. *Agni Karma*
4. *Shastra Karma*

Sushruta has indicated *Visravana* or *Raktamokshana* (bloodletting) in the management of haemorrhoids. It has been explained that, in prolapsed (*Nirgatani*) and thrombosed (*Doshapurnani*) piles; *Raktamokshana* is the choice of treatment, which relieves pain. *Raktamokshana* can

be carried out with the help of *Jalauka* (leech) or any other suitable method.

Surgery is contraindicated if the haemorrhoids are associated with secondary complications like thrombosis. Hence effective method for the treatment of thrombosed piles as well as to minimize the post-operative complications becomes necessary. It had given a scope to evaluate the role *Jalaukawacharana* in the management of thrombosed piles. The effect of bloodletting (*Raktamokshana*) through leech therapy (*Jalaukawacharana*) on thrombosed externo-internal piles (*Raktarsha* or *Sravi Arsha*) has been studied in the current attempt.

MATERIALS AND METHOD

Twenty patients of either sex were selected randomly from the outpatient department (OPD) and inpatient department (IPD) of *Shalyatantra*, Hospital, University college of *Ayurved*, Jodhpur.

INCLUSION AND EXCLUSION CRITERIA

Inclusion criteria

On the basis of Clinical Examination, diagnosis was made and the subjects of either external or internal piles with normal reports of Routine investigations like CBC, ESR, Bleeding time, Clotting time, Urine for physical-chemical-microscopic examination and negative reports of HIV, HbsAg, VDRL were included in the study.

Exclusion criteria

Patients with known history of Hypertension, Diabetes and other acute disorders were excluded from the study.

Twenty patients had undergone for leech application with a gap of 2 days between two sittings. Follow up was done for 3 weeks.

LEECH APPLICATION

1. *Purva Karma*: The application site was cleaned and dried.

2. *Pradhana Karma*: Leech was made to catch on the place of pile mass. If necessary, pile mass was pricked with needle to bleed, so that it gets easy to catch by the leech. Out of 20 patients, 19 noticed pain and itching at the time of sucking blood by the leech.

3. *Paschat Karma*: The part should be cleaned with cold water followed by application of honey or *Shatadhauta Ghrita* with dressing.

CRITERIA OF ASSESSMENT

1. Pain

0 – Absent

1 – During defecation only

2 – Present after defecation up to 1 hour

3 – Continuous pain for more than one hour after defecation

2. Oedema

0– absent

1- Confined to pile mass

2- Developed up to perianal skin and subcutaneous tissue

3. Tenderness

0– No tenderness

1– Little response to sudden pressure

2 -Wincing face on superficial slight touch

3– Resist to touch and rigidity

4. Discoloration

0– No discoloration

1– Red

2- Reddish blue

3– Bluish purple

OBSERVATION AND RESULTS

Total ratio for male to female was 3:1. Age wise distribution shows that most of the patients were from the age group of 21–40 years. Follow up was done for 3 weeks. All observations were noted and statistically represented, which shows significant results. Pain was relieved within 7 days of leech application in eight patients, whereas in 15 days of leech application oedema,

discoloration, and tenderness were reduced in maximum number of patients. Two patients after leech application showed uncontrolled bleeding; hence, care should be taken during the procedure. Maximum number of patients started regular work within a month.

Effect of Leech Therapy on signs and symptoms of Thrombosed Piles :-

Effect of *Jalaukawacharana* on pain:

The score of pain before treatment was 1.2, whereas after treatment it was reduced to 0.1. Percentage of pain relief was found 91.66%.

Effect of *Jalaukawacharana* on oedema:

The score of edema before treatment was 0.7, whereas after treatment it was reduced to 0.0333 with 95.24% relief.

Effect of *Jalaukawacharana* on discoloration:

The score of discoloration before treatment was 2, whereas after treatment it was reduced to 0.1724 with 91.38% relief.

Effect of *Jalaukawacharana* on tenderness:

The score of tenderness before treatment was 1.2, whereas after treatment it was reduced to 0.233 with 80.56% relief.

Table 1: EFFECT OF LEECH THERAPY ON SIGNS AND SYMPTOMS OF THROMBOSED PILES

Signs and Symptoms	Mean	S.D.	S.E.	% Relief	P value
Pain					
BT	1.2	0.484	0.088	91.66	<0.001
AT	0.1	0.305	0.056		
Edema					
BT	0.7	0.466	0.085	95.24	<0.001
AT	0.033	0.183	0.033		
Discoloration					
BT	2.0	0.263	0.048	91.38	<0.001
AT	0.172	0.384	0.071		
Tenderness					
BT	1.2	0.407	0.074	80.56	<0.001
AT	0.233	0.430	0.079		

BT- Before treatment; AT-After treatment

DISCUSSION

Engorgement of a haemorrhoidal vessel with acute swelling may allow blood to pool and, subsequently, clot; this leads to the acutely thrombosed external haemorrhoid, a bluish-purple discoloration often accompanied by severe incapacitating pain.

Raktamokshana is practiced in India since thousands of years, which has been included under the five bio-purificatory procedures. Leech application is one type of bloodletting in *Ayurveda*. Hirudin present in the saliva of leech helps in opposing the process of blood clotting.

One leech exhausts from 5 to 10 ml of blood. Bleeding lasts for some hours (about 12–24 hours) and patient loses about 20–30 ml of blood. Thus due to influence of 5 leeches simultaneously a patient loses 100–250 ml of blood. Biologically active substances containing in saliva glands of medicinal leeches can restore blood circulation in the nidus of inflammation, removes ischemia of organs, and provide capillary tissue exchange and, due to it, can carry out the transport of chemical drugs into the nidus of inflammation, improve immune protection, and regeneration of tissues.

Probably, due to the action of hirudin and hyaluronidase (the factor of penetration) it

improves not only the blood circulation in organs, but also in other organs and tissues due to the best capacity of capillary-tissues exchanging and so on. It promotes reduction of swelling, dissolution of the organized blood-clots, and cosmetic effect. Using of leeches promotes the increasing of local immunity as well. The leech application is effective in reducing the pain; this supports the analgesic action of leech component. In thrombosed piles, the leech application has thrombolytic action. The pus and mucous discharge also get subsided due to leech application, this effect is due to antimicrobial and mucolytic properties of leech.

CONCLUSION

In present study, the leech application in case of thrombosed piles is found to be effective. This application provides analgesic and thrombolytic activities. Decrease in pus and other discharges can be expected because of the antimicrobial and mucolytic properties of leech. In addition to these benefits; the method is cost effective, less time consuming and an OPD procedure.

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