



LEECH ON EXTERNAL THROMBOSED HEMORRHOIDS

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ABSTRACT

Arshas or hemorrhoids included under the category of Mahagadas as it significantly disturbs the normal proceedings or activities of the body like an enemy. It is a guda gata mamsa vikara occurs in three valis of the ano rectal region. Basically it is two types viz internal and external hemorrhoids. Thrombosis of external hemorrhoid is an acute complication, commonly seen in the clinical practice. In this condition there will be sudden appearing of tense and painful swelling lateral to the anal orifice. Generally it will cure within five days, but there is an every chance of suppuration, fibrosis, bursting etc. It can be compared with Pachyamana Vrana Shotha, where the swelling with pricking type of pain, burning sensation, restlessness etc are common. In classics bloodletting has been mentioned in such conditions. A clinical study was conducted by application of Jalouka in thrombosed external hemorrhoids and its efficacy was compared with Thrombophob gel. Leech therapy shows clinical as well as statistical significance ($P < 0.001$) than Thrombophob gel in all variables.

Keywords: Arshas, Mahagadas, Jalouka

INTRODUCTION

Hemorrhoid is a kind of disease which is most unkind towards mankind. It is the fleshy projections in the guda valis and that creates obstruction in the gudamarga, and disturbs the afflicted like an enemy does¹. Among all the diseases of GIT, the hemorrhoid is the most common and troublesome disease. This disease is not life threatening but making the life of the sufferer more miserable. Clinical evidences show that so many people suffer from discomfort and pain associated with hemorrhoids. The reason being the part is constantly subjected to natural stress and strain. Present day food habits and hectic life also add to the increase in the ratio of incidence. According to locations Arshas is of Bahya (external) and Abhyantara (internal) types². Internal hemorrhoids lie within the anal canal and is covered with mucous membrane. It usually starts at the anorectal ring and ends in the dentate line. External hemorrhoids are those which occur below the dentate line. They are covered approximately by anoderm and distally by the skin, both of which are sensitive to pain and temperature³. On the basis of patients improper diet and regimen there will be so many acute complications may arise such as udavartha, udarashula, hritshula etc. Among such acute complications, pain and swelling in the anal region is commonly seen⁴. This condition can be compared with thrombosis of external hemorrhoids³. This condition appears suddenly and is very painful. Due to straining at stool, coughing or lifting heavy weight etc there will be back pressure on the anal venules and tense as well as tender swelling appears lateral to the anal margin⁵. Usually it resolves within five days and hence it is also called as five days pile mass. But there is an every chance of suppuration, fibrosis or bursting give rise to bleeding. The features of this condition simulate with lakshanas of Pachyamana Vrana shotha⁶. The treatment modalities in contemporary science include laxative, sitz bath, analgesics and excision of clot. On review of the classics, in Amavastha and Pachyamanavastha

of vrana shotha, to reduce the pain, swelling and to avoid the risk of suppuration Rakta mokshana has been mentioned⁷. In Pachyamanavastha there will be the dominance of Pitta and Jalouka is indicated for bloodletting⁸. Considering as an emergency measure, leech has been applied in thrombosed external pile mass and efficacy was evaluated. It is a secure and simple OPD level procedure which gives noteworthy result without any complication and it is economical too. Its efficacy was compared with application of Thrombophob gel (Heparin sodium).

MATERIALS AND METHODS

Sample source

40 patients diagnosed with thrombosed external hemorrhoids were taken for the study from Alva's Ayurveda Hospital, Moodbidri, India. Patients were randomly selected into two Groups A and B irrespective of their sex, religion, socioeconomic status etc. Each patient was selected for the trial after voluntary consent. Institutional Ethical Committee Clearance No: CEC/ AAMC /2013/38

Study Design

Randomized comparative clinical study

Diagnostic criteria

- Pain
- Bleeding per rectum
- Swelling at perianal region
- Tenderness

Inclusion criteria

- Patients with diagnosed case of thrombosed external hemorrhoids
- Patients between the age group of 20-60 years.
- Patients irrespective of sex, religion, occupation, and socioeconomic status.

Exclusion criteria

- Patients with systemic diseases like Diabetes Mellitus, Tuberculosis, Ulcerative Colitis, Crohn’s Disease, HIV, Bleeding disorders, Ca of Rectum and Anal canal etc.
- Hemorrhoids associated with grade 4 Rectal prolapse, 4th degree Hemorrhoids, Perianal Abscess etc.
- In case of pregnant woman

Laboratory investigations

Routine blood investigation: Hb%, TC, DC, E.S.R, BT, CT, RBS

Intervention

Total treatment duration is of 10 days

Group A (Control group) - Patients were treated with application of Thrombophob gel.

Group B (Trial group) - Patients were treated with application of Leech

Follow up was done on the 10th day

Procedure

Group A

Thrombophob ointment applied over the thrombosed pile mass twice a day for 5 days.

Group B

A non poisonous Jalouka were selected. They were bathed in turmeric water for detoxification as well as to increase its appetite. The small prick was made over the inflammatory swelling and leech allowed to suck the blood. When it started to suck its body was covered with wet bandage. The process was continued till spontaneous detach of leech. Once it detached, the bite area was sprinkled with turmeric powder and covered with gauze and loose bandage was applied. On the other hand the leeches were subjected to immediate emesis by applying the salt at their mouth. Once it starts to vomit, then it was squeezed from the tail end to the mouth; so that the sucked blood was expelled out. Later the leeches were washed in fresh water and preserved in separate labeled bottles which contain fresh water. If required the procedure was repeated on the 3rd day. For every patient of both the groups are advised, a lukewarm water sitz bath twice a day and prescribed to intake of Haritaki choorna 10 g with hot water at bed time.

Assessment

Clinical assessment was done on the 1st, 3rd and 5th day and follow up done on the 10th day. The data obtained was analyzed using paired student’s t-test. Grading was given for every clinical feature and it is presented in Table 1.

Table 1: Grading for different clinical features

| Pain | Bleeding | Tenderness | Swelling |
|--|---|---|--|
| 0-no pain 1-mild pain only during defecation 2- severe pain only during defecation 3-recurrent pain in anal region irrespective of defecation 4-continuous pain in anal region | 0- no bleeding 1-staining of blood in the stool 2-drop wise bleeding in to toilet pan while defecation 3-jetting of blood while defecation | 0-no tenderness 1-tenderness on palpation without grimace 2- tenderness on palpation with grimace 3-tenderness with withdrawal 4- tenderness with withdrawal for gentle touch | 0-no swelling 1-1-5 mm 2-6- 10 mm 3-11-15 mm 4-16 mm and above |

Table 2: Showing treatment efficacy of control group ‘A’ after treatment

| Variable | Mean | | SD | SE | “t” | “p” | Remark |
|------------|------|------|------|------|-------|--------|--------|
| | BT | AT | | | | | |
| Pain | 3.00 | 0.75 | 0.82 | 0.18 | 12.13 | <0.001 | HS |
| Tenderness | 3.10 | 1.55 | 0.58 | 0.13 | 11.75 | <0.001 | HS |
| Bleeding | 0.65 | 0.30 | 0.47 | 0.10 | 03.28 | <0.001 | HS |
| Swelling | 2.85 | 1.30 | 1.05 | 0.23 | 05.51 | <0.001 | HS |

SD-Standard deviation, SE- Standard error, HS: Highly significant

Table 3: Showing treatment efficacy of trial group ‘B’ after treatment

| Variable | Mean | | | SE | “t” | “p” | Remark |
|------------|------|------|------|------|-------|---------|--------|
| | BT | AT | SD | | | | |
| Pain | 3.15 | 0.25 | 0.94 | 0.21 | 13.74 | < 0.001 | HS |
| Tenderness | 3.15 | 0.20 | 0.80 | 0.17 | 16.39 | < 0.001 | HS |
| Bleeding | 0.55 | 0.10 | 0.58 | 0.13 | 3.41 | < 0.001 | HS |
| Swelling | 3.05 | 0.45 | 0.73 | 0.16 | 15.82 | < 0.001 | HS |

SD-Standard deviation, SE- Standard error, HS: Highly significant

Table 4: Showing comparative efficacy of group A and B

| Variable | Mean | | “t” | “p” | Remark |
|------------|------|------|------|---------|--------|
| | A | B | | | |
| Pain | 2.25 | 2.90 | 4.92 | < 0.001 | HS |
| Tenderness | 1.55 | 1.95 | 5.19 | < 0.001 | HS |
| Bleeding | 0.35 | 0.60 | 5.22 | < 0.001 | HS |
| Swelling | 1.55 | 2.60 | 5.49 | < 0.001 | HS |

HS: Highly significant

Table 5: Showing demographic profile of group A and B patients

| | Age in years | | | Gender | | | Occupation | |
|-------|--------------|------|--------|--------|------|------------|------------|------|
| | A | B | | A | B | | A | B |
| 21-30 | 60 % | 70 % | Male | 55 % | 65 % | Student | 15 % | 20 % |
| 31-40 | 20 % | 20 % | Female | 45 % | 35 % | Sedentary | 35 % | 30 % |
| 41-50 | 15 % | 10 % | | | | Physical | 45 % | 40 % |
| 51-60 | 05 % | 00 % | | | | House wife | 05 % | 10 % |

RESULTS

Observation of the results with respect to the group A (Control group) and Group B (Trial group) are denoted in Table 2 and 3 respectively. It shows that the treatment of the condition in both the groups has resulted in marked improvement which is statistically significant. Clinically too there are remarkable improvements with respect to the entire set of variables in both the groups. The therapy showed high significance on the 5th day. There was a rapid decline in the mean value of pain, swelling and tenderness in group B and showed more efficacious than group A. There was a great improvement with respect to bleeding per rectum during defecation in trial group compared to control group. In 3 patients of trial group required repeated application of leech on the 3rd day. Overall comparison of the effect of the therapy is presented in Table 4. Accordingly, it is observed that the efficacy of the trial group ($P < 0.001$) is much better than the effect of the control group. The comparison is also evaluated statistically and is found to be significant.

DISCUSSION

Based on the demographic profile (Table 5) it is observed that thrombosed external hemorrhoids are prevalent in life period of 20 to 40 years. Males (85 %) and physical workers (40 %) show the major incidence. These observations correspond to the etiology being these groups are usually exposed to etiological factors. Leech therapy showed a high efficacy in immediate reduction of swelling, pain and tenderness which was highly significant. It may be due to when leech was applied it sucks the blood as well as interstitial tissue fluid from the swelling and reduces the oedema for great extent. Once the edema has been subsided, obviously there will be reduction of pain and tenderness. The earlier reduction of swelling reduces the incidence of suppuration, fibrosis as well as bursting. As it is compared to Pachyamana vana shotha, when leech applied in this condition there will be doshaviyana due to clearance of strotodusti. This results in reduction of swelling and pain.

CONCLUSION

Thrombosis of external hemorrhoid is a common acute complication of the piles. There will be tense and tender swelling in peri anal region and this condition can be compared with the Pachyamana Vrana site. Usually it resolves within five days, but there is an every chance of suppuration, bursting and fibrosis. In this condition application of leech helps to improve the circulation by sucking the liquid blood and interstitial fluid from inflammatory swelling and there will be an immediate reduction in the size of swelling, pain and tenderness. Leech therapy is an effective, safe, simple and is cost effective too.

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