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

N.H. Kulkarni¹*, Sachin N. Patil²

¹Professor & P.G. Guide, ²Professor & H.O.D., Post Graduate Department of Shalya tantra, J.G.C.H.S. Ayurvedic Medical College & Hospital, Shri. J.G.Co-operative Hospital & Research Institute Ltd., Ghataprabha, Karnataka, India.

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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 Marasmhraya Dirghakalanubandhi, Dushchikitisa 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 form injection therapy to the latest cryosurgery and laser therapy. Acharya Sushruta had advocated to carryout Raktamoksha in Shushkarsha. Amongst the different methods of Raktamoksha, 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 simulate the clinical picture of haemorrhoids.

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 medial science, as the available medicinal treatment is only palliative and not a curative measure, where as the surgical approach to the problem is not increasing the courage because of its untoward post-operative complications.

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.

From the various methods in classical texts, Raktamoksha with leech application has been taken up for the present study. 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. Hence, it is necessary to go for a method, an attempt has been put forth to evaluate the efficacy of Jalaukavacharana - a variety of Raktamoksha in patients suffering from condition stated above.

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. A complete history of the disease along with complaints were recorded as per the specially prepared proforma for the ano-rectal disorders.

b. Classification of the disease as well as diagnosis on local examination was made both from modern and Ayurvedic lines including Prakriti of the patients.

c. 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
   i. Condition of the perianal skin including the colour.
   ii. Number of externally thrombosed piles along with clockwise position.
   iii. 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
   Haridra 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

1. 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.

**Pashchhat 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 there after 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.
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 poor appetite (83.33%) hard stool consistency (70%), irregular bowel habit (76.66%), Krura Koshta (66%), Mandagni (53.33%) and spasmodic sphincter tone (93%).
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%), Jalaukhamukhabat 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

<table>
<thead>
<tr>
<th>Sr. No. of patients</th>
<th>Total Count Venous Blood</th>
<th>Letted Blood</th>
<th>↑ Neutrophils Venous Blood</th>
<th>Letted Blood</th>
<th>↑ Lymphocytes Venous Blood</th>
<th>Letted Blood</th>
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<td>7200</td>
<td>8200</td>
<td>↑ 45</td>
<td>60</td>
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<td>55</td>
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<td>7700</td>
<td>8900</td>
<td>↑ 59</td>
<td>65</td>
<td>↑ 37</td>
<td>45</td>
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<td>3</td>
<td>8200</td>
<td>8900</td>
<td>↑ 58</td>
<td>71</td>
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<td>50</td>
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<td>7500</td>
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<td>↑ 39</td>
<td>43</td>
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<tr>
<td>5</td>
<td>6400</td>
<td>7900</td>
<td>↑ 55</td>
<td>66</td>
<td>↑ 42</td>
<td>30</td>
</tr>
<tr>
<td>6</td>
<td>5400</td>
<td>7800</td>
<td>↑ 68</td>
<td>59</td>
<td>↑ 29</td>
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<tr>
<td>7</td>
<td>7700</td>
<td>10100</td>
<td>↑ 52</td>
<td>71</td>
<td>↓ 33</td>
<td>27</td>
</tr>
<tr>
<td>8</td>
<td>7600</td>
<td>12300</td>
<td>↑ 53</td>
<td>68</td>
<td>↓ 42</td>
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<tr>
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<td>6900</td>
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<td>9300</td>
<td>↑ 56</td>
<td>70</td>
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</table>

Percentage = 100%

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

<table>
<thead>
<tr>
<th>Symptom</th>
<th>Relief in Jalaukavacharana</th>
<th>Relief in surgical excision</th>
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<tr>
<td>Vedana</td>
<td>97.37</td>
<td>84.21</td>
</tr>
<tr>
<td>Guda kandu</td>
<td>86.36</td>
<td>85</td>
</tr>
<tr>
<td>Vibandha</td>
<td>63.16</td>
<td>52.60</td>
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<td>Guda daha</td>
<td>90.00</td>
<td>68.42</td>
</tr>
<tr>
<td>Shotha</td>
<td>96.72</td>
<td>80.56</td>
</tr>
<tr>
<td>Size</td>
<td>95.45</td>
<td>90.91</td>
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Table: Effect of Jalaukavacharana and surgical excision on cardinal symptoms of Arsha in 30 patients

<table>
<thead>
<tr>
<th>Symptom</th>
<th>Group</th>
<th>B.T.</th>
<th>A.T.</th>
<th>X d (%)</th>
<th>S.D.</th>
<th>S.E.</th>
<th>“t”</th>
<th>“P”</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vedana</td>
<td>I</td>
<td>2.53</td>
<td>0.07</td>
<td>97.37</td>
<td>0.52</td>
<td>0.13</td>
<td>18.50</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td></td>
<td>II</td>
<td>2.53</td>
<td>0.40</td>
<td>84.21</td>
<td>0.64</td>
<td>0.17</td>
<td>12.91</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Guda kandu</td>
<td>I</td>
<td>1.83</td>
<td>0.25</td>
<td>86.36</td>
<td>0.51</td>
<td>0.15</td>
<td>10.65</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td></td>
<td>II</td>
<td>2.00</td>
<td>0.30</td>
<td>85.00</td>
<td>0.67</td>
<td>0.21</td>
<td>7.96</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Vibandha</td>
<td>I</td>
<td>1.46</td>
<td>0.54</td>
<td>63.16</td>
<td>0.49</td>
<td>0.14</td>
<td>6.74</td>
<td>&lt;0.001</td>
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<tr>
<td></td>
<td>II</td>
<td>1.62</td>
<td>0.64</td>
<td>61.57</td>
<td>0.53</td>
<td>0.18</td>
<td>6.66</td>
<td>&lt;0.001</td>
</tr>
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</table>
Surgical excision helps in thrombosed external piles and thus gives relief in thrombolytic and dissolves the clot of blood anticoagulant. Hence this principle acts as 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. Jalaugavacharana 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 1 which shows that Jalaugavacharana is highly effective in thrombosed external piles.

4. Jalaugavacharan is totally painless therapy than surgical excision.

5. During the Jalaugavacharana, antibiotic, antiseptic and analgesic drugs are not required.

6. Surgical excision has got post-operative pain, inflammation and sometimes fibrosis.

7. The treatment Jalaugavacharana is more effective in reducing the size and symptoms of thrombosed piles than surgical excision.

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8. *Address for correspondence

*Address for correspondence

DR.N.H.KULKARNI
Professor & P.G.Guide
Post Graduate Department of
Shalya tantra
J.G.C.H.S.Ayurvedic Medical College
& Hospital, Ghataprabha
Karnataka, India.
Email: drnhk75@gmail.com

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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*