A Case Study of Thrombosed Haemorrhoids Treated with Leech Application

R. Govind Reddy¹, Anil Mangal², A. D. Jadhav³, P. S. Tathed⁴ and Paresh⁵

Abstract

Minimal invasive technique of the ancient medical science which require documentation of their effect on different ailments. One of these techniques is blood letting with the help of leeches, was used in a case of inoperable thrombosed haemorrhoids, six different symptoms and signs were graded and studied, the scores were entered in the case paper. Results were studied at the end of two months when the patient became symptomless. Inference was drawn and the mode of action of the modality is suggested.

Introduction

Sushruta the ancient father of the surgery, though they describe many complicated surgical procedures but still believed in minimum invasive procedures to manage surgical conditions. Such procedures are called minimal invasive para-surgical procedures in the modern days and are gaining importance in day to day practice as they inflict minimum pain to the patient and are cost effective. These Para-surgical procedures include a) ksharakarma b) Agnikarma c) Raktamokshana which are further subdivided and adopted as per the requirements in the given situation.

Haemorrhoids amongst the ano-rectal diseases is one such disease which requires surgical intervention.

Though the surgical procedures are quite successful there is a possibility of recurrence. At times the haemorrhoids may prolapse, the prolapsed part may become thrombosed and painful, or become strangulated.

This type of situation poses problems of ulceration, infection, pyelephlebitis and gangrene of the haemorrhoids. This peculiar situation problem for the surgical procedures and the surgeon has to wait till the thrombus and pain subsides and the inflammatory swelling around the haemorrhoids reduces. The conservative measures employed are far from satisfaction. Hence there is a need for more effective modalities.

Rakta mokshana (Blood letting) is one such modality which seems to be promising. Rakta mokshana is subdivided into two 1) Blood letting with the help of instruments 2) Blood letting with the help of leech which can be called as Bio apparatus. 1) The instruments includes a) Shrunga (cow's hollowed horn) b) Alabu: dried and hollowed bitter guard c) Prachchana with the help of knife, multiple superficial incisions on the affected part of the body d) Siravedha by cutting the vein at the affected part. 2) Application of leech: leech is a blood sucking creature which has the capacity to selectively suck the blood which is affected by doshas. The application of leeches at the site of haemorrhoids and around is advocated by the ancient authors of Ayurveda shastra. It is also in the day to day practice of many practitioners but the documentation is scanty. Here is humble attempt to document a case study of a patient of thrombosed haemorrhoids treated with leech application.

**Presenting complaints**

- Burning and itching sensation at the anal region.
- Continuous Pain in the anal region.
- Increased with change of the posture and defecation.
- Something coming out of the anus.
- Bleeding P/R.
- Difficulty in defecation and also while passing flatus
- Blood stained mucus discharge.

Since one week.
Past history of disease

Pain, burning and itching sensation off and on since 5 years. Occasional bleeding while defecation & chronic constipation.

Past history of patient

Known case of Hypertension/ Diabetes Mellitus /Ischaemic Heart Disease - 12 years & Hemiplegia - 2 years.

History of previous surgery

Patient was operated for glioma-a large cystic lesion in right corpus callosum.

History of blood transfusion - 3 units.

Patient was admitted at M.A.Podar Ayurvedic hospital with the above mentioned complaints. Manual reduction was tried without success. The pain aggravated due to forceful attempt of manual reduction. Patient was referred to K.E.M Hospital, parel, Mumbai. The operation was considered but as the general condition of the patient was not satisfactory. The Patient was put on conservative line of treatment without much satisfactory effect. Hence patient was discharged on his request and was brought to R.R.A. Podar central research Institute, Worli; Mumbai. Patient was admitted in the ward and was treated on following lines.

Patient’s family history

Nothing particular was noted.

Personal history and addictions

Mixed diet, addicted to alcohol and tobacco chewing and smoking. Disturbed sleep, emotional stress due to family problems.

On Examination:

General examination

General condition fair, afebrile, asthenic.

Pulse: 90/min, regular, volume good

Respiratory Rate: 22/min

Temperature: normal

BP: 190/100mm of Hg (fluctuating through out day)

RS: clear

H.S.: NAD

Urine: passed normally
Stools: Hard stools with blood and mucus
Nails: pallor
Conjunctiva: pallor.
Tongue: coated, foul smelling breath.
Systematic Examination
Respiratory System
Nothing Abnormal Detected.
Cardiovascular system
History of chest pain and breathlessness known case of Ischaemic Heart Disease.
Heart Sound: NAD
Alimentary system
Loss of appetite, Nausea, Discomfort in the abdomen, Liver just palpable, tender on deep palpation, spleen not palpable.
Central Nervous System
History of operation of glioma with left Hemiplegia.
Urinary System
Bladder catheterised due to dribbling of urine after operation.
Local Examination
Swelling with discolouration of the anal region, painful on touch.
Firm swelling, bleeds on touch and tender. 3rd and 4th degree prolapsed and thrombosed piles at the 3, 7 and 11°O clock positions.
Investigations
Routine laboratory investigation and radiological investigations Within Normal Limits except Hb and blood sugar.
Hb- 10.5 gm/dl Blood sugar fasting-150mg/dl, Post prandial- 210mg/dl, (Patient is under Allopathic treatment for blood sugar)
BT-2-3 min  W.N.L.
CT- 3 min }
ECG: Q wave in 2nd and 3rd
AVL V₄V₅V₆ with ST depression and T wave inversion suggestive of old healed infarct with left ventricular hypertrophy.
Differential diagnosis
Possibility of rectal Prolapse, Carcinoma anal canal or rectum and prolapsing rectal polyps was excluded clinically.
Diagnosis: Prolapsed thrombosed haemorrhoids.

Thrombosed (Prolapsed) Hemorrhoids with Gangrene (Before the Treatment)

Management

Application of leeches after cleaning mass with normal saline and sterile dry gauze piece alternate days for 1 week. There after every 3rd day till the swelling completely subsided and the mass of the haemorrhoids could be placed in the rectum without difficulty.

Jalaukavacharan Vidhi (Application of leeches) in Thrombosed Haemorrhoids

Local treatment

Local application of kasisadi taila for 1 week there after kasisadi taila introduced through anus 5 ml with Paediatric Catheter alternate day. Local fomentation with a ball of gauge pieces socked in dettol lotion. Sitz bath twice daily in lukewarm potassium permanganate water.

Internal Medication

1) Tab. Kumarika vati 500mg S.O.S. (for pain)
2) Tab. Sukshma Triphala 500mg T.D.S.
3) Tab. Arogyavardhini Vati 500mg T.D.S.
4) Syp. Abhyarishta 20 ml+ 20ml lukewarm water at bedtime.
5) Gandharva Hartitaki churna 5gm at bed time.

Results & Observation

It was observed that the intensity of pain reduced after the first application of the leech. Though the size of the mass did not change.

After one week the pain became tolerable though did not disappear completely. The reddish black discolouration became bright red. Local burning sensation reduced. The swelling of the mass reduced and a little finger could be passed without discomfort to the patient. This facilitated the introduction of catheter and kasisadi taila could be introduced in the rectum. Mucus discharge reduced.

On completion of two weeks of treatment the pain further reduced and patient did not require Kumarika vati to be given. Burning sensation reduced further, the firmness and swelling around the pile mass reduced which allowed index finger to be introduced in the anus with slight discomfort.

Thrombosed (Prolapsed) Haemorrhoids (Middle of the Treatment)
(After 6 sittings/ 2 weeks)
After completion of three weeks of treatment the pain was present only at the time of defecation, swelling reduced and the colour of the swelling improved further and became normal. There was no mucus discharge.

On completion of one month treatment the pile mass further reduced, pain at the time of defecation, swelling also reduced. There was no discomfort at the time of introduction of catheter for introducing kasisadi tail. The blood and mucus discharge completely stopped. The general condition of patient improved.

Thrombosed (Prolapsed) Haemorrhoids (Middle of the Treatment)
(After 9 sittings/ 4 weeks)

After six week of treatment the pile mass further reduced and could be pushed in the rectum, which prolapsed on passage of stools and flatus at times. There was no pain, tenderness, blood or mucus discharge.

Thrombosed (Prolapsed) Haemorrhoids (After the Treatment)
(After 14 sittings/ 6 weeks)
On completion of the treatment at the end of 2nd month the frequency of prolapse of pile mass was reduced and was observed only at defecation, which went into rectum of its own. There was no pain, bleeding, or mucus discharge. Hence the patient was discharged and was advised only oral treatment.

Thrombosed (Prolapsed) Haemorrhoids (After the Treatment)

Table-I
Results of the treatment of Leech application in Thrombosed Haemorrhoids

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Symptoms</th>
<th>Before treatment</th>
<th>7 Days of Treatment</th>
<th>15 Days of Treatment</th>
<th>30 Days of Treatment</th>
<th>45 Days of Treatment</th>
<th>60 Days of Treatment</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Pain</td>
<td>+++</td>
<td>++</td>
<td>++</td>
<td>+</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>2</td>
<td>Swelling</td>
<td>+++</td>
<td>++</td>
<td>++</td>
<td>+</td>
<td>+</td>
<td>0</td>
</tr>
<tr>
<td>3</td>
<td>Tenderness</td>
<td>++++</td>
<td>+++</td>
<td>++</td>
<td>+</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>4</td>
<td>Discoloration of skin</td>
<td>++</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>5</td>
<td>Burning sensation</td>
<td>+++</td>
<td>++</td>
<td>+</td>
<td>+</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>6</td>
<td>Mucus discharge</td>
<td>Present</td>
<td>Present</td>
<td>Present</td>
<td>Absent</td>
<td>Absent</td>
<td>Absent</td>
</tr>
</tbody>
</table>
A. Pain

Grade III (Severe pain): Constant agonising pain without change of posture requires sedatives like Kumarika vati.

Grade II (Moderate): Pain tolerable at rest, intensifies with change of posture requires Kumarika vati after defecation or local interference.

Grade I (Mild): Tolerable pain at the time of defecation, no pain at rest or at change of posture requires no pain killers.

Grade 0 (No pain)-

B. Tenderness

Grade III- Patient does not allow to touch and pain intensifies on change of posture.

Grade II- Though the patient allows to touch but experience intense pain with light touch and does not allow to introduce finger.

Grade I- Pain on firm touch and while doing P/R examination.

Grade 0- No tenderness- 0

C. Colour

Grade III- Black
Grade II- Blue Black

Grade I- Red Blue
Grade 0- Bright Red

D. Swelling

Grade III- Obstructing the anal opening completely along with perianal swelling

Grade II- Obstructing the anal opening from where ribin like stool can pass without much perianal swelling

Grade I- Obstructing the anal opening can allow tip of the little finger with pain

Grade 0- No swelling

E. Burning sensation

Grade III- Constant anal burning sensation, patient becomes restless

Grade II- Occasional burning sensation even after passing flatus

Grade I- Burning sensation at the time of defecation

Grade 0- No burning sensation

Suggested action of the treatment modality

It seems that the blood sucking creature when applied at the thrombosed piles sucks the blood
and/or sucks the blood stained exudates from and around the pile mass. though only about 50c.c., the swelling which compresses the nerve endings is reduced, this probably helps in relieving the intensity of pain. So also as the congestion is relieved, the fresh arterial blood flow increases which might facilitates the phagocytic activity of the white cells.

Now it is established that the secretions from the mouth of the leech contains certain chemicals which have anaesthetic effect, along with Hirudin which is anticoagulant and anti-inflammatory (Researcher believe that 65-polypeptide amino acid is responsible for such action) this probably dissolves the micro thrombi in the capillaries around the pile mass ensuring increase in the circulation of both the arterial and venous ends of the capillaries, so also it contains certain chemicals which probably has anti-biotic action which helps in combating the super added infections, which might set in due to stasis of the region.

**Conclusion**

Leeches were applied in the patient, at inoperable thrombosed piles at periodical intervals. First application of the leeches reduced the intensity of pain and the swelling around the pile mass the blackish discolouration which was suggesting that the piles are becoming gangrenous were also reduced on subsequent applications of the leeches. Though it took about two months to achieve satisfactory relief the modality seems to be promising in the patients of thrombosed piles.

Though many researchers have studied different aspects and chemicals of the saliva of the leeches, still much remains to be studied. Probably action on the micro thrombi suggested in this study remains to be explored.
References


सारांश

जलोकावचारण द्वारा स्कंदित अर्श की चिकित्सा
- एक चिकित्सकीय अध्ययन

(आर. गोविन्द रेड्डी, अनिल मंगल, प. डी. जाधव, पी. एस. तापेंद्र एवं पारेश)

प्राचीन वैद्यक शास्त्र में वर्णित रक्तमोक्षण की अनेक विधियों में से एक जलोकावचारण का चिकित्सकीय अध्ययन, स्कंदित अर्श (Thrombosed Haemorrhoids) के रोगी पर प्रस्तुत शोध पत्र में 6 चिह्नित लक्षणों एवं चिन्हों के आधार पर किया गया है। चिकित्सा के परिणामों का अध्ययन 2 माह पश्चात् रोगी के पूर्ण लाभ होने पर किया गया।

(Approved on 02-07-2009)