

TO STUDY THE EFFECT OF JALAUKA AVCHARAN IN PERIANAL HAEMATOMA - A CASE STUDY

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ABSTRACT

Perianal hematoma is a localized collection of blood in the tissue surrounding the anus under the skin. It is usually caused by a ruptured or bleeding veins around the anal verge.^[1] Perianal hematoma can have symptoms like mild to severe pain depending on the size and is extremely painful in acute stage, however, majority of anal haematomas remains painless with mild discomfort because of the swelling which eventually disappears with conservative management.^[3] Once it diagnosed the standard line of treatment is Excision of the clot under local anaesthesia. As per Ayurveda perspective the condition can be correlated with Raktaja granthi but direct description of perianal hematoma is not mentioned in Ayurvedic text. Jalaukavacharana i.e Leech therapy is one of the ancient para-surgical procedure described in Shushruta Sutra Sthan 13 Chapter.^[2] and other major Ayurvedic text. It is used in the treatment of variety of inflammatory condition. Medical leech therapy or hirudotherapy is a kind of complementary and integrated method. A 51-year old male patient having chief complaints of pain and swelling at anal verge, was clinically diagnosed as case of perianal hematoma. This patient was treated with specific regimen such as Jalaukavacharana (Leech application) locally, along with Gandharva haritaki vatti 2HS internally. The patient had history of Angioplasty done in 2012 and was taking tab Ecosprin 150mg 1OD the patient was advised to discontinue the tablet one day prior to Jalaukavacharan and start one day after the therapy. The Patient was given 4 setting of Jalaukavacharan and the therapeutic evaluation was done based the symptoms of his swelling and pain. Remarkable improvements in terms of pain and swelling was observed gradually after each setting and the pain was negligible after 2nd setting and swelling was markedly reduce after 4th setting. Hence this observational case study revealed significant effect of Jalaukavacharan in management of Perianal hematoma.

INTRODUCTION

In 21st century the world has become so much dependent upon modern means of technologies for getting their work done that mobility and physical work has become an old fashion way of getting work done people are referring automatic machines and an attitude of getting work done at a single click thus sedentary lifestyle and work the new causative agent of so called lifestyle diseases, with low intake of fibrous diet and low nutritious food and with increasing intake of processed and fast food leading to Ano-rectal disorders which are progressively increasing in the society. The perianal hematoma is the collection of haemorrhagic blood under the perianal skin. Perianal hematoma may occur due to chronic straining and passage of hard stools, though no such reference found in texts. The symptoms of a

perianal hematoma such as pain, swelling and tenderness (varying from mild to severe) can present over a short period of time and it occurs as a result of the bulge coming out at the skin surrounding the anal verge, due to underlying haemorrhage. If diagnosed within the first few hours of presentation, the pooled blood may be evacuated using a syringe. Once the blood has clotted it is removed via an incision over the lump under local anaesthesia. In modern medicine, the conservative management (in mild cases) includes analgesics, anti-inflammatory (internally) and aesthetic ointments locally adjuvant to Luke warm water Sitz bath with varied prognosis. Moreover, majority of anal haematomas are soon become painless and usually absorbed by conservative treatment. Once clot is formed, standard line of treatment is evacuation of clot under anaesthesia.

The Ayurvedic basic concept reveals that in the initial stage, before clot formation, mixed sign & symptoms of Vata-pitta Dosha are found, which can be co related with Vranasotha (inflammation). Further, in advanced stage, clot formation under the skin takes place, which can be termed as Raktaja granthi. In Sushruta samhita, Avasechan (Bloodletting) by means of Leech has been advocated in the management of inflammatory-painful conditions,^[4] to relieve pain and to break the pathogenesis of disease, especially when Pitta dosha is vitiated and lodged in blood.

Review of components of medicinal Leech saliva^[5]

1. Hirudin- Inhibits blood coagulation by binding to thrombin
2. Calin (sarin)- Inhibits blood coagulation by blocking the binding of von Willebrand factor to collagen Inhibits collagen-mediated platelet aggregation
3. Destabilase- Monomerizing activity Dissolves fibrin Thrombolytic effects
4. Hirustasin(Serine proteinase)-Inhibits kallikrein, trypsin, chymotrypsin, and neutrophilic cathepsin G
5. Bdelins-Anti-inflammatory Inhibits trypsin, plasmin, and acrosin
6. Hyaluronidase ("Spreadingfactor")-Increases interstitial viscosity Antibiotic
7. Leech-derived tryptase inhibitor (LDTI)(Tryptase inhibitor)-Inhibits proteolytic enzymes of host mast cells
8. Eglins-Anti-inflammatory- Inhibit the activity of α -chymotrypsin, chymase, subtilisin, elastase, and cathepsin G
9. Factor Xa inhibitor- Inhibits the activity of coagulation factor Xa by forming equimolar complexes
10. Complement inhibitors- May possibly replace natural complement inhibitors if they are deficient
11. Carboxypeptidase A inhibitors-Increases the inflow of blood at the bite site
12. Histaminelike substances-Vasodilator Increases the inflow of blood at the bite site
13. Acetylcholine-Vasodilator

CASE REPORT

In this study, a 51-year-old male patient, with chief complaints of pain, discomfort and swelling around the anal region since 1 week. The patient had prolonged sitting office hours with history of constipation and straining while defecation and unsatisfactory defecation. Patient had history of CABG and Angioplasty done in 2012 and was on Tab Ecosprin 150mg, no history of DM, HTN. The personal history of patient revealed non-vegetarian diet, with irregular time and frequency of intake, and bowel habit was irregular, with occasional constipation. The patient was hemodynamically stable having pulse: 78/min, respiratory rate: 18/min, Blood pressure: 130/90 mm of Hg. On local examination, swelling was observed around anal verge (at 9 O' clock position). The size was oval shaped hematoma was

approximately 1.5cm x 1cm. There was bluish coloured bulge (swollen) with mild raised local temperature. Further, there was no bleeding, no thrombosis, no induration or discharge noticed clinically. Per rectal digital examination showed no abnormal sphincter spasm, and mild tenderness at the peri anal region (over swollen part). Proctoscopy was not performed due to pain. The final clinical diagnosis made was perianal hematoma. Since the patient was not willing for operative management and also was on antiplatelets medication he was advised for Jalaukavcharan (leech therapy).

MATERIAL AND METHODS

The patient with MRD No. (OPD/2021/21660) was treated with specific regimen Leech therapy- locally along with internal drug Gandharvharitaki vatti - internally with sitz bath and periodic assessment was done. For the therapeutic evaluation, parameters such as pain, tenderness, size of swelling were assessed before, during and after completion of treatment. Jalaukavacharana (~Leech therapy - four sitting given at interval of seven days) locally, adjuvant to Gandharvharitaki vatti 2 tablets at night. Since the patient was on tab ecosprin 150mg 1OD he was advised to stop his medication 1 day prior to the leech application and start day after the therapy to prevent excessive bleeding.

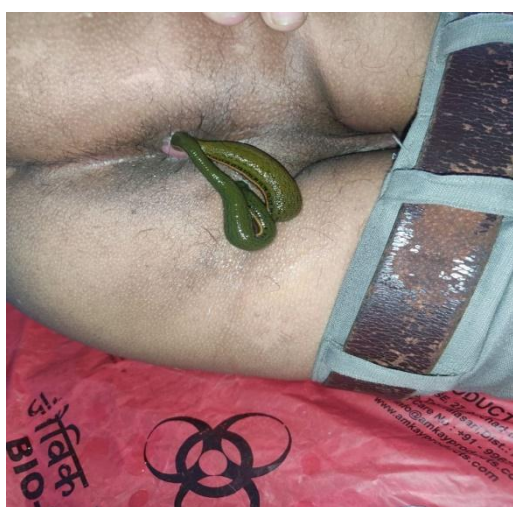
Leech Application

Patient was placed in left lateral position and the anal verge was cleaned with tap water. Subsequently, two leeches were applied at perianal region (over hematoma at 9'O clock position) for 35 minutes. Leeches were covered by wet cotton gauze to moist its skin. After 30-35 minutes of blood sucking, the Leeches fallen off from the site spontaneously and Shatdautha Ghrita.^[6] is applied over the leech bite and clean and dressing is done.

OBSERVATION AND RESULTS

Pain, tenderness and swelling started decreasing from day 1, after leech therapy. Thus, patient got complete relief from pain and tenderness after 2nd leech application. Similarly, on local examination, size of perianal hematoma was also reducing gradually. After 4th sitting after leech application the bite mark of leech was widen from artery and with the help of small size artery forced small blood clots were removed and cleaning and dressing was done. The patient got complete relief after fourth sitting of Leech therapy, so, thereafter only palliative medicine was advocated for smooth act of defecation for 15 days.

Moreover, the present case study revealed that Leech therapy (four sittings at an interval of 7 days) locally adjuvant to Gandharvharitaki vatti 2HS (internally) with sitz bath proved effective in the management of perianal hematoma

Perianal haematoma**BEFORE APPLICATION OF JALAUKA****APPLICATION OF JALAUKA : 1ST SETTING****APPLICATION OF JALAUKA : 2ND SETTING****APPLICATION OF JALAUKA : 3RD SETTING****APPLICATION OF JALAUKA : 4TH SETTING****DISCUSSION**

The acute onset of severe pain with a palpable bulge is usually due to perianal haematoma causing pressure on surrounding somatic nerve. The present case study was focused on analgesic and anti-inflammatory effects of Jalaukavacharana (Leech therapy) which proved very effective in managing acute hematoma by reducing pain and other signs of inflammation like tenderness, redness, local temperature, and swelling. The major constituents

Leech saliva- Hirudin inhibits blood coagulation by binding to thrombin, Calin inhibits collagen mediated platelet aggregation, Destabilase dissolves fibrin, Bdelin acts as anti-inflammatory and inhibits trypsin, Eglin acts as anti-inflammatory and inhibit activity of cathepsin G, Carboxypeptidase A inhibitors increases the inflow of blood at the bite site, Histamine like substance, acetylcholine acts as vasodilator and Anaesthetic substance which causes anaesthesia at the bite site. Thus, the Leech saliva increase the microcirculation, decrease the inflammation as well as pain and swelling. Furthermore, Gandharvaritaki vatti is having many different properties and actions, one of the important among them is Anulomana. Anulomana (~ aperients a purging medicine; stimulates evacuation of the bowels) can be defined as a mild form of laxative action in which complete process of digestion is achieved and faecal matter which is adhered to intestinal walls is separated without damaging intestinal mucosa. This action is achieved in such way that it accelerates normal digestion process through easy evacuation by altering consistency of faecal matter to normalcy which is sticky because of improper digestion (ingestion).

CONCLUSION

The observation revealed that, this specific treatment which was combination of Leech Therapy (locally) adjuvant to Gandarvharitaki vatti (internally) in the prescribed dose provided significant relief in the management of symptoms of perianal hematoma such as pain, tenderness and swelling at peri anal region. Hence, Leech Therapy proved an effective alternative treatment in the management of perianal hematoma and can definitely avoid unnecessary surgical intervention in patients not willing for surgical intervention or patients have any comorbidities or taking any medications like in our case scenario.

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