



EFFECT OF JALAUKA AVCHARAN (LEECH APPLICATION) IN PROLAPSED THROMBOSED HAEMORRHOIDS - A CASE STUDY

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ABSTRACT Thrombosed haemorrhoids is a very painful condition which occurs when blood clot forms inside a haemorrhoidal vein, obstructing blood flow & causing painful swelling of the anal tissue. This condition seems most troublesome & needs urgent surgical attention. In Ayurveda it is correlated with Arsha. Jalaukavacharana or Leech therapy is an ancient parasurgical procedure described in Sushrut sutrasthan & other Ayurvedic texts. It is used in many inflammatory conditions. Leech saliva contains many bioactive constituents which possess anti-inflammatory, analgesic, thrombolytic, anticoagulant, antioxidant & blood circulation enhancing properties. In this case study, the patient of thrombosed haemorrhoids was treated with Jalauka Avcharan. The study revealed significant effects in the management of the disease.

KEYWORDS : Thrombosed Haemorrhoids, Arsha, Jalaukavacharana, Leech application

INTRODUCTION

In this modern era due to sedentary lifestyle, fast food, irregular eating habit & stress , the digestive system is hampered & it causes anorectal diseases. Haemorrhoids are common among them. They are painless generally but can cause severe pain when get thrombosed. 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 mandate. Modern medicine has conservative treatment which includes analgesic, anti-inflammatory, & Luke warm water sitz bath etc. Haemorrhoids are compared with *Arsha* in *Ayurveda* & are considered as *Mahagada*. *Acharya sushruta* has mentioned it as *rakta pradoshaj vyadhi*. *Acharya Charak* has stated that vitiated *doshas* follows *bahya* & *Abhyantar rogmarg* to produce *arsha*. Complication of *Arsha* as per *Acharya Sushruta* include *trishna* (thirst), *aruchi* (anorexia), *shoola* (severe pain), *shonit prasruti* (excessive bleeding), *shofa* (odema), *atisara* (diarrhea) . In *Ayurveda Acharya Sushruta* has mentioned *Visravan Chiktisa* (*Raktamokshan*) i.e. blood letting for *Nirgatani* (prolapsed) & *Doshpurnani* (thrombosed) *arsha*. *Charak* has also mentioned *Jalaukavacharana* in *Raktarsh*. *Vagabhat* also advised *Raktamokshan* in *sanchit dushta rudhir* (thrombosed) ,*shoon* (painful) & *kathin* (hard) *Arsha*. This *Raktamokshan* can be carried out by *Jalauka*. Though there is surgical treatment available, it is contraindicated in complications like thrombosis, there is need to decrease inflammation prior to surgery. Thus *Jalaukavacharana* can be a good alternative to this.

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("Spreading factor")-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. Histamine like substances-Vasodilator Increases the inflow of blood at the bite site

13. Acetylcholine-Vasodilator

CASE REPORT

A male patient of age 32 having complaint of pain & burning sensation at anal region, PR bleeding, mass felt at anal region or swelling at anal region, constipation came to surgery OPD . Patient had history of constipation, unsatisfactory bowel evacuation & straining while defecation. Personal history of patient reveals having prolonged sitting position, irregular diet habits, non vegetarian diet, etc. In local examination patient was having prolapsed thrombosed Haemorrhoids at 7,11 o'clock position. Per rectal examination was not allowed, painful. The final diagnosis was made Prolapsed thrombosed Haemorrhoids & Leech application was advised to the patient.

MATERIAL & METHOD

The patient was treated with specific regimen Leech application-locally along with stool softener & 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 or Leech application was given in four sitting at interval of four days locally, along with stool softener.

LEECH APPLICATION

Preapplication - Patient was placed in left lateral position and the anal verge was cleaned with tap water.

Application - Two leeches were applied at each pile mass (over) 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.

Post application - *Shatdautha Ghrita* is applied over the leech bite and clean and dressing is done.

OBSERVATION AND RESULTS

The patient started getting relief in pain, tenderness, swelling from 1st day after leech application. He got complete relief after 4th sitting of leech application. On local examination , size of pile mass was also reducing gradually. After 4th sitting oral medication was given for smooth act of defecation for 15 days. Thus this case study reveals that

Leech application proved to be effective in management of prolapsed thrombosed haemorrhoids.

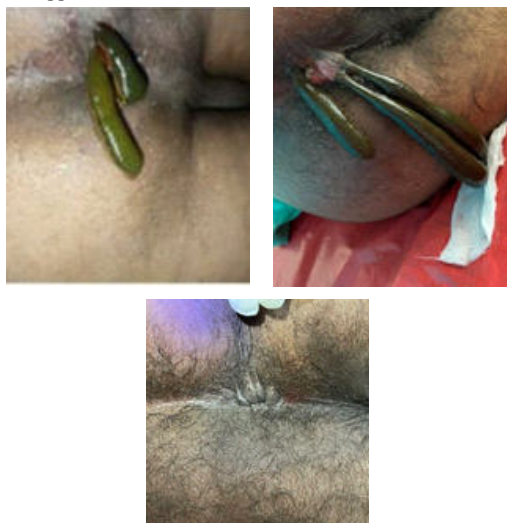
DISCUSSION :

The present case study was focused on analgesic and anti-inflammatory, anticoagulant effects of *Jalaukavacharana* (Leech application) which proved very effective in managing prolapsed thrombosed piles by reducing pain and other signs of inflammation like tenderness, 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.

CONCLUSION

In this case study Leech application on prolapsed thrombosed piles was found to be effective. Leech application provides analgesic, Anti-inflammatory, anticoagulant actions & help reducing the size of pile mass Thus leech application gives an effective treatment in the management of prolapsed thrombosed haemorrhoids.

Jalauka Application



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