A Clinical Case Study Article on the Efficacy of Jalaukavacharan in the Management of Thrombosed External Haemorrhoids

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***Abstract*—Haemorrhoids are one of the most common ano rectal conditions affecting the human. These are vascular tissues within the submucosa of anal canal, comprising of loose connective tissue, smooth muscle and blood vessels with arteriovenous connections. Perianal hematoma or thrombosed external hemorrhoid is a peculiar condition characterized by a small clot in the perianal subcutaneous tissue, which occurs due to back pressure on the anal venule's consequent upon straining at stools, coughing or lifting heavy weights. A 45-year-old female, with complaints of painful mass at anal verge in the past 2 weeks, presented at the OPD of shalyatantra in government Ayurvedic medical college, Nanded, Maharashtra. Patient was clinically examined and diagnosed as case of thrombosed hemorrhoid. Patient was treated with Jalaukavacharana for one sitting along with internal medications for two weeks, that relieved off symptoms.**

***Index Terms*—Jalaukavacharan, Peri anal hematoma, Thrombosed external haemorrhoids**

I. INTRODUCTION

Haemorrhoids are one of the most common ano rectal conditions encountered in daily practice. It has been projected that about 50% of the population would have haemorrhoids at some point of their lifetime. These are dilated veins within the anal canal in the sub epithelial region formed by radicals of superior, middle and inferior rectal veins. Haemorrhoids may be 'internal' or 'external', based on their position above or below the dentate line respectively. Perianal hematoma or thrombosed external haemorrhoid is a peculiar condition characterised by a small clot in the perianal subcutaneous tissue, which occurs due to back pressure on the anal venule's consequent upon straining at stools, coughing or lifting heavy weights. It appears suddenly and is very painful. It is a rare, but dangerous complication of haemorrhoids, caused by hypertonicity of internal sphincter. Thrombosed external haemorrhoids if left untreated, may lead to haemorrhage or abscess. Hence this has to be addressed immediately.

Thrombosed external haemorrhoids can be correlated to Rakthaja arsas. Arsas is a maha roga affecting the guda marma. Sushruta has indicated visravana or rakthamokshana in its management. Rakthamokshana can be carried out with the help of Jalaukavacharana, as it is a tool to be employed in pitta predominant conditions. Charaka has indicated Jalaukavacharana in the management of Rakthaja arsas. The effect of Jalaukavacharana in thrombosed external haemorrhoid has been studied in this attempt.

II. CASE REPORT

A 45-year-old female, with complaints of painful mass at anal verge for 3 weeks, presented at the OPD of Shalyatantra in government Ayurvedic medical college, Nanded, Maharashtra. Patient was suffering from severe pain at peri-anal region, that aggravated with prolonged sitting. Pain was of excruciating nature, while defection. Associated complaint includes

chronic constipation for 5 months. Patient does not suffer from any other co-morbidities, hence not under any other medications. She had a maternal familial history of the same condition. She had constipated bowel and disturbed sleep. On general examination, pallor, icterus, cyanosis, oedema and lymphadenopathy were absent. Ano-rectal examination done in lithotomy position, on inspection revealed the presence of reddish black globular mass at 11 o' clock position. The mass was tender and turgid on palpation. Per rectal digital examination revealed a tight internal sphincter. Proctoscopic examination revealed second degree internal hemorrhoids at all primary positions. Finally, the patient was diagnosed as a case of Thrombosed external haemorrhoids, and has been correlated to Rakthaja arsas.

III. METHODS

Pre-operative procedure: Informed consent was taken. Vitals were checked. The patient was laid in lithotomy position and part exposed and cleaned with sterile water.

Operative procedure: Jalauka was washed in turmeric water. It was bitten at the site of thrombosed external hemorrhoid. It fell off post 55 minutes of sucking. Hemostasis was attained after compression with cold swab.

Pot-operative procedure: Packing was done with turmeric powder. Patient was shifted to IPD. Patient was discharged the next day and instructed to follow up after a week, with the following discharge medicines tabulated below:

Table 1: Details of interventions

Type of therapy	Name of formulation	Dosage and mode of administration
Internal usage	1) Chiruvilwadi Kashaya 2) Kankayana vati 3) Visab powder 4) Tab Styplon 5) Tab Pilex	90 ml bd A/C 1-0-1 bd with buttermilk 1 tsp with hot water at HS 1-1-1 bd A/C 1-0-1 bd A/C
Life style modifications	Ahara: Avoid oily and spicy food, Drink plenty of water Vihara: Avoid prolonged sitting over hard surfaces, strenuous jobs and late-night sleep. Adviced use of anal dilators of small size, to be retained for smaller durations after lubrication, to be initiated post one week of pain relief. The size was to be increased gradually from medium to large.	



Fig 1: Jalaukavacharana on the Thrombosed external haemorrhoid

Result: Pain drastically reduced immediately after Jalaukavacharana. There was significant change in the size, shape, consistency and colour of the haemorrhoidal mass. The response of patient symptoms to treatment have been tabulated.

IV. DISCUSSION

Haemorrhoids are symptomatic enlargement and abnormal downward displacement of anal cushions, as per the ‘theory of sliding anal cushion’. Anal cushions are discontinuous layer of thickened tissue of the submucosa of anal canal. 3 major anal cushions are present at 3,7 and 11 o' clock positions, when patient lies in lithototomy.

Hypervascularisation of haemorrhoidal plexus contributes to the development of haemorrhoids. The

supporting connective tissue of anal cushion and vascular walls undergo severe inflammatory reaction. Capillary bed destruction occurs due to activation of MMP 25 and MMP 9 by thrombin, plasmin and other proteinases. This leads to promotion of angioproliferative activity of TGF β (transforming growth factor β). Endoglins are the binding sites of TGF β, which are the proliferative markers of neovascularization, an important phenomenon of haemorrhoids. The vascular smooth muscles get disregulated by autonomic nervous system. Sleep deprivation alone can increase the sympathetic drive. Hence depleted sleep could be contributing factor to the development of her pile mass.

Constipation is her chronic presentation. Constipation and prolonged straining increase intra-abdominal pressure, causing obstruction of venous return, which ultimately results in engorgement of haemorrhoidal plexus. Hard stools also cause shearing force on the anal cushions Engorgement of hemorrhoidal vessel with acute swelling may allow blood to pool and subsequently clot. This leads to thrombosed external haemorrhoid. Thrombosed external haemorrhoid is characterized by acutely evolving, painful peri-anal swelling. Pain can also result from sudden distension of the overlying skin by the blood clot. Conservative therapy is considered first-line treatment for symptomatic hemorrhoids, such as increased dietary fiber, stool softeners, and increased water intake, which helps to decrease straining and the sheering pressure associated with passing stool. This alleviates congestion and allows haemorrhoid cushions to return to their natural state. This is facilitated by the internal administration of above said medicines.

The histopathological changes leading to the manifestation of haemorrhoids is that, the supporting connective tissue of anal cushion, i.e collagen fibres, fibro- elastic tissues undergo destructive changes due to over expression of MMP2 (matrix meta proteinase), zinc dependent proteinase, which is an enzyme capable of degrading extra cellular proteins like elastin, fibronectin and collagen. Distortion and rupture of anal sub epithelial muscles (Treitz's muscles or mucosal suspensory ligament) also occurs. Probable mode of action by the application of Jalauka could be the presence of Hirudin in the saliva of Jalauka, that oppresses blood clotting by binding to thrombin.

Jalauka application has thrombolytic action. Calin in its saliva inhibits collagen mediated platelet aggregation. Destabilase is an enzyme that dissolves fibrin. Bdelin15 has anti-inflammatory action and inhibits trypsin. Eglin has anti-inflammatory action by inhibiting the activity of cathepsin G. Carboxypeptidase A inhibitors. increases the inflow of blood at the bite site. Anaesthetic substance in its saliva causes anaesthesia at the bite site. Thus, the saliva of Jalauka increases the microcirculation, decrease the inflammation, pain and swelling.

V. CONCLUSION

Attempts to manage thrombosed external haemorrhoid with the application of Jalauka was studied. Observations proved significant symptomatic relief. This method of Jalaukavacharana is painless, least invasive, cost effective and OPD procedure, hence best option to opt for thrombosed external haemorrhoid management.

Informed Consent:
Informed consent has been provided by the patient to publish the case report and image.

Limitation of study:
This is a single case study. Hence a greater number of cases needs to be subjected to study for validation.

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