A comparative clinical study of Shatadhouta Ghrita and Jatyadi Ghrita in the management of Parikartika w.s.r. to fissure-in-ano

Krishna Krishor Garai¹, Anumalapudi Jayaram²

¹Post Graduate Scholar, Department of Shalya Tantra, Ramakrishna Ayurvedic Medical College, Hospital & Research Centre, Bengaluru, Karnataka, India.
²Professor, Department of Shalya Tantra, Ramakrishna Ayurvedic Medical College, Hospital & Research Centre, Bengaluru, Karnataka, India.

ABSTRACT

Parikartika is a condition of Guda in which there is cutting and burning pain. Parikartika may be correlated to fissure in ano. As per Samhithas, Parikartika is a complication of Vasti, Virechana etc. and even due to faulty instrumentation e.g., enema nozzle etc. To avoid surgery and to evolve an effective Ayurvedic treatment a comparative clinical study has been undertaken to assess efficacy of Shatadhouta Ghritavasti with Jathyadi Ghritavasti. The study was conducted in the OPD and IPD of R.A.M.C. Hospital and Research Centre. 40 patients of Parikartika were selected from the OPD and IPD of the aforesaid Institution and randomly assigned in to two groups namely Group A and B. Subjects under Group A, 20 Patients for Shatadhouta Ghritavasthi, while Group B, 20 Patients for Jathyadi Ghritavasti. The Study showed that Group A and Group B are equally effective in treating Parikartika. Conclusion: An attempt was made to study clinically the effect of Shatadhouta Ghrita & Jatyadi Ghrita in Parikartika. Shatadhouta Gritha Matrabasti was more effective in acute cases of Parikartika. Jatyadi Grithamatrabasti was more effective in chronic cases of Parikartika.

Key words: Parikartika, Jatyadi Ghrita, Shatadhouta Ghrita, Fissure-in-Ano.

INTRODUCTION

The incidence of ano-rectal diseases in the population is shooting up in alarming rate, most common being Fissure-in-ano, Hemorrhoids and Fistula-in-ano. The incidence of anal fissures is around 1 in 350 adults and they occur equally commonly in men and women and most often occur in adults aged 15 to 40.[1] Fissure-in-ano is a longitudinal ulcer in the anoderm of the distal anal canal, is very painful ano rectal disease condition affecting both sexes equally, found in the community as acute and chronic. Acute fissure is characterized by spasm, pain during defecation and passage of bright streaks of blood along with stool and if this fails to heal turns into chronic fissure.[2]

As per the Ayurvedic classics, on the basis of symptoms, the disease fissure-in-ano can be compared to the disease Parikartika where there is excruciating, cutting pain in Basti and surrounding areas.[3] Parikartika is one of the commonest ano-rectal disorders, even though it is not a life threatening but very painful to sufferers in the present era. The disease Parikartika is mentioned in almost all Ayurvedic Samhitas, including Brhatrayes and Laghutrayes. The word Parikartika means Parikartana Vatvedana around the Guda i.e., cutting type pain and also explained under the Panchakarma Vyapat specially in Basti Karma Vyapat,[4] Bastinetra Vyapat, Virechena
Vyapat\(^5\) characterized with Anilasanga, Karthanavat and Daha in the anal region, and it is caused by the vitiation of Vata and Pitta Dosha. Acharya Dalhana has described the term Parikartika as condition of Guda in which there is cutting pain and tearing pain. According to Kasyapa the Parikartika is the one having cutting and tearing pain in Guda Pradesa.\(^6\) Parikartika is also having the symptoms like burning sensation, bleeding which can be correlated to fissure-in-Ano.

The cause of fissure-in-ano is primarily constipation with passing of hard stool and secondary due to many diseases like chronic amoebic dysentery, diverticulitis, irritable bowel syndrome, ulcerative colitis etc., and even post hemorrhoidectomy or fistulotomy.\(^7\) In adults, fissures may be caused by constipation, or by prolonged diarrhea. In older adults, may be caused by decreased blood flow to the area. Fissures may also be caused by tuberculosis, occult abscesses, leukemic infiltrates, carcinoma, Acquired Immunodeficiency Syndrome (AIDS) or Inflammatory Bowel Disease, Sexually Transmitted Infections (Syphilis, Herpes, Chlamydia and Human Papilloma Virus).\(^8\) Other common causes of anal fissures include: Childbirth trauma in women, Crohn's disease, Ulcerative colitis and Poor toileting practices in young children. The changes in life style like extra work load, stressful life, increased sedentary nature, have made much of the population suffers from ano rectal pathologies and among them fissure-in-ano is most common. The most common cause of non-healing is increased spasm of the internal anal sphincter muscle which results in impaired blood supply to the anal mucosa. The result is a non-healing ulcer, which may become infected by fecal bacteria.

The common site of fissure-in-ano is 6 o’clock, that is, midline posterior, lower half of the anal canal which is commonly found in young adults and after delivery in females. The disease has been classified into two varieties viz., acute fissure-in-ano and chronic fissure-in-ano. Acute fissure-in-ano is a condition in which only inflammation of the anal mucosa.

In modern science the conservative management like local application of Lidocaine (anesthetic) 2% can be applied which sometimes leads to headache, delayed healing etc. Next surgical management like Lord’s dilatation, Fissurectomy and Lateral Sphincterotomy\(^9\) are the treatments which are having complications like fecal incontinence and prolonged healing. Hence there is a need for an effective and safe management.

In Ayurveda a successful management of this condition has been described. The treatment of Parikartika depends on pacifying Vata and Pitta Dosha and the treatment told in classics for this condition are Pichabasthi, Anuvasanabasthi, Pichu, Parisheka and local administration of Snehadrayya.\(^10\) Ghritabasthi and Pichu can be more effective because it helps to reduce pain by its smoothening effect and reduce burning sensation. Its wound healing properties are well documented and hence ideal for the management of Parikartika.

Medicated Ghrita as local application is mentioned in Ayurvedic classics for Parikartika. In this Shatadhouta Ghrita and Jatyadi Ghrita were selected for local application as they are having effective Shodhana and Ropana properties. Both the formulations contain Vata and Pithashamaka Gunas and as mentioned in Khasyapa Samitha\(^11\) and Bhaisajya Ratnavali\(^12\) respectively Shathodoutha Gritha and Jatyadi Ghrita are easily available, cost effective and can be prepared. Hence this study was intended to compare and evaluate the efficacy of Shatadhoutha Ghrita & Jatyadi Ghrita in the management of Parikartika.

**MATERIALS AND METHODS**

Totally 40 patients of Fissure-in-Ano had been selected for the study and those are divided into two groups, Group A - 20 patients and Group B - 20 patients.

Complete history and clinical evaluation of all the patients had been recorded in a specially designed Performa which included both Ayurvedic and modern methods of examinations.

Subjective and objective parameters were used to assess the clinical response in both groups. The patient were assessed on before treatment (1st day), on 7th day, on 14th day on 21st day after the treatment.
Group A - Satadhouta Ghrita

Group B - Jatyadi Ghrita

Materials
- Sterile gloves.
- Disposable syringes 20 ml
- Rubber catheter no 6-8
- Dressing pad and plaster
- Shatadhouta Ghrita
- Jathyadi Ghrita

Drug Source
Shatadhouta Ghrita and Jathyadi Ghrita are prepared in College RSBK Department as per the references given in the Ayurvedic literature.

Preparation of Shatadhouta Ghrita and Jatyadi Ghrita

Shatadhouta Ghrita was prepared by rinsing cow's ghee, usually in cold water for hundred times. In the present trial, Go-Ghrita (Clarified Butter) was taken in shallow vessel, water added in vessel containing Ghrita & kneading action was performed. After performing kneading action for 2-3 mins the mixture was allowed to settle down & then above water was drained. This procedure was repeated for 100 times. After repeating the procedure for 100 times, Shatadhouta Ghrita was obtained. Afterwards Shatadhouta Ghrita was collected and measured. Then Shatadhouta Ghrita was preserved in air tight glass container. Preservatives were not used in this preparation.

Jati, Nimba Patra, Patola Patra, Daru Haridra, Haridra, Katukarohini, Manjistha, Madhuka, Karanja Patra or Bijja, Usira, Sariva, Tutha, Siktha, Murchita Goghrita, Water 16 Parts are made in to Kalka from (with the help of Khalva Yantra) and mixed with 4 parts of Ghrita, 16 parts of water in a Sneha Patra and then according to Sneha Paka Vidhi, Ghrita is prepared over Mandagni. When Ghrita attains proper Paka, Madhuchista is to be added and mixed well. Then Ghrita is to be filtered and obtained product is called Jatyadi Ghrita.

Inclusive criteria
a. Patient of age group 18-60 suffering from fissure in ano signs and symptoms like Gudagata Shoola (Pain), Gudagata Raktasrava (Bleeding), Vibandha, Gudagata Vrana, Tenderness, Sphincter Spasm.
b. The cases are randomly selected irrespective of sex, chronicity, Prakriti, Doshas.

Exclusive criteria
a. Known/suspected case of Malignancy/carcinoma of anus or rectum.
b. Multiple fissures- in-ano as a complication of skin diseases.
c. Known case of STD, HIV infections and other severe infectious diseases.
d. Fissure secondary to fistula in-ano, Ulcerative colitis, Tuberculosis, Syphilis, Crohn’s disease, other systemic disease pertaining to colon, rectum.

Observations and Results

In the study it was observed that,

Gudagata Shoola (Pain)

In group A,

Before treatment there was severe pain in 11 patients (55%), moderate pain in 7 patients (50%), and mild pain in 2 patient (5%).

On 7th day there was severe pain in 2 patients (10%), moderate pain in 13 patients (65%), mild pain in 5 patients (25%) and 0 (0%) patient there was no Pain Symptom.

On 14th day there was severe pain in 0 patients (0%), moderate pain in 0 patients (0%), mild pain in 14 patients (70%) and 6 (30%) patients there was no Pain Symptom.

On 21st day there was severe pain in 0 patients (0%), moderate pain in 0 patients (0%), mild pain in 14 patients (70%) and 6 (30%) patients there was no Pain Symptom.

In group B,

Before treatment there was severe pain in 11 patients (55%), moderate pain in 8 patients (40%), and mild pain
in 1 patient (5%) and 0 (0%) patient has no pain symptom.

On 7th day there was severe pain in 0 patients (0%), moderate pain in 7 patients (45%), mild pain in 12 patients (55%) and 1 (5%) patient there was no Pain Symptom.

On 14th day there was severe pain in 0 patients (0%), moderate pain in 3 patients (15%), mild pain in 15 patients (75%) and 2 (10%) patients there was no Pain Symptom.

On 21st day there was severe pain in 0 patients (0%), moderate pain in 0 patients (0%), mild pain in 5 patients (25%) and 15 (75%) patients there was no Pain Symptom.

**Gudagata Rakta Strava (Bleeding)**

*In group A,*

Before treatment there was severe Gudagata Raktastrava (Bleeding) in 5 patients (25%), moderate Gudagata Raktastrava (Bleeding) in 11 patients (55%), and mild Gudagata Raktastrava (Bleeding) in 4 patient (20%) and 0 (0%) patient has no Gudagata Raktastrava (Bleeding) symptom.

On 7th day there was severe Gudagata Raktastrava (Bleeding) in 0 patient (0%), moderate Gudagata Raktastrava (Bleeding) in 4 patients (20%), and mild Gudagata Raktastrava (Bleeding) in 12 patient (60%) and 4 (20%) patients has no Gudagata Raktastrava (Bleeding) symptom.

On 14th day there was severe Gudagata Raktastrava (Bleeding) in 0 patients (0%), moderate Gudagata Raktastrava (Bleeding) in 0 patients (0%), and mild Gudagata Raktastrava (Bleeding) in 5 patients (25%) and 15 (75%) patients has no Gudagata Raktastrava (Bleeding) symptom.

On 21st day there was severe Gudagata Raktastrava (Bleeding) in 0 patients (0%), moderate Gudagata Raktastrava (Bleeding) in 0 patients (0%), and mild Gudagata Raktastrava (Bleeding) in 1 patient (5%) and 19 (95%) patients has no Gudagata Raktastrava (Bleeding) symptom.

*In group B,*

Before treatment there was severe Gudagata Raktastrava (Bleeding) in 2 patients (10%), moderate Gudagata Raktastrava (Bleeding) in 15 patients (75%), and mild Gudagata Raktastrava (Bleeding) in 3 patients (15%) and 0 (0%) patient has no Gudagata Raktastrava (Bleeding) symptom.

On 7th day there was severe Gudagata Raktastrava (Bleeding) in 0 patients (0%), moderate Gudagata Raktastrava (Bleeding) in 7 patients (35%), and mild Gudagata Raktastrava (Bleeding) in 11 patient (55%) and 2 (10%) patients has no Gudagata Raktastrava (Bleeding) symptom.

On 14th day there was severe Gudagata Raktastrava (Bleeding) in 0 patients (0%), moderate Gudagata Raktastrava (Bleeding) in 0 patients (0%), and mild Gudagata Raktastrava (Bleeding) in 4 patient (20%) and 16 (80%) patients has no Gudagata Raktastrava (Bleeding) symptom.

**Tenderness**

*In group A,*

Before treatment there was severe tenderness in 10 patients (50%), moderate tenderness in 5 patients (25%), and mild tenderness in 5 patient (25%) and 0 (0%) patient has no tenderness.

On 7th day there was severe tenderness in 0 patients (0%), moderate tenderness in 6 patients (30%), mild tenderness in 10 patients (50%) and 4 (20%) patient there was no tenderness.

On 14th day there was severe tenderness in 0 patients (0%), moderate tenderness in 0 patients (0%), mild tenderness in 7 patients (35%) and 13 (65%) patients there was no tenderness.

On 21st day there was severe tenderness in 0 patients (0%), moderate tenderness in 0 patients (0%), mild
tenderness in 0 patients (0%) and 20 (100%) patients there was no tenderness.

**In group B,**

Before treatment there was severe tenderness in 9 patients (45%), moderate tenderness in 7 patients (35%), and mild tenderness in 4 patient (20%) and 0 (0%) patient has no tenderness.

On 7th day there was severe tenderness in 0 patients (0%), moderate tenderness in 9 patients (45%), mild tenderness in 8 patients (40%) and 3(15%) patient there was no tenderness.

On 14th day there was severe tenderness in 0 patients (0%), moderate tenderness in 1 patients (5%), mild tenderness in 10 patients (50%) and 9(45%) patients there was no tenderness.

On 21st day there was severe tenderness in 0 patients (0%), moderate tenderness in 0 patients (0%), mild tenderness in 3 patients (15%) and 17(85%) patients there was no tenderness.

Sphincterspasm

**In group A,**

Before treatment there was severe sphincter spasm in 6 patients (30%), moderate sphincter spasm in 9 patients (45%), and mild sphincter spasm in 5 patient (25%) and 0 (0%) patient has no sphincter spasm.

On 7th day there was severe sphincter spasm in 0 patient (0%), moderate sphincter spasm in 5 patients (25%), and mild sphincter spasm in 12 patient (60%) and 3 (15%) patients has no sphincter spasm.

On 14th day there was severe sphincter spasm in 0 patients (0%), moderate sphincter spasm in 0 patient (0%), and mild sphincter spasm in 7 patient (35%) and 13 (65%) patients has no sphincter spasm.

On 21st day there was severe sphincter spasm in 0 patients (0%), moderate sphincter spasm in 0 patient (0%), and mild sphincter spasm in 3 patients (15%) and 17 (85%) patients has no sphincter spasm.

**In group B,**

Before treatment there was severe sphincter spasm in 8 patients (40%), moderate sphincter spasm in 6 patients (30%), and mild sphincter spasm in 6 patient (30%) and 0 (0%) patient has no sphincter spasm.

On 7th day there was severe sphincter spasm in 0 patients (0%), moderate sphincter spasm in 7 patients (35%), and mild sphincter spasm in 11 patient (65%) and 2 (10%) patients has no sphincter spasm.

On 14th day there was severe sphincter spasm in 0 patients (0%), moderate sphincter spasm in 1 patient (5%), and mild sphincter spasm in 10 patient (50%) and 9 (45%) patients has no sphincter spasm.

On 21st day there was severe sphincter spasm in 0 patients (0%), moderate sphincter spasm in 0 patient (0%), and mild sphincter spasm in 2 patients (10%) and 18 (90%) patients has no sphincter spasm.

**Overall Assessment**

**In group A,**

Before treatment there was severe form of signs and symptoms in 8 patients (40%), moderate form of signs and symptoms in 10 patients (50%), and mild form of signs and symptoms in 2 patients (10%) and 0 (0%) patient has no form of signs and symptoms.

On 7th day there was severe form of signs and symptoms in 0 patient (0%), moderate form of signs and symptoms in 2 patients (10%), and mild form of signs and symptoms in 17 patient (85%) and 1 (5%) patient has no form of signs and symptoms.

On 14th day there was severe form of signs and symptoms in 0 patients (0%), moderate form of signs and symptoms in 0 patients (0%), and mild form of signs and symptoms in 6 patient (30%) and 14 (70%) patients has no form of signs and symptoms.

On 21st day there was severe form of signs and symptoms in 0 patients (0%), moderate form of signs and symptoms in 0 patients (0%), and mild form of signs and symptoms in 0 patient (0%) and 20 (100%) patients has no form of signs and symptoms.

**In group B,**

Before treatment there was severe form of signs and symptoms in 9 patients (45%), moderate form of signs and symptoms in 10 patients (50%), and mild form of
signs and symptoms in 1 patient (5%) and 0 (0%) patient has no form of signs and symptoms.

On 7th day there was severe form of signs and symptoms in 0 patient (0%), moderate form of signs and symptoms in 9 patients (45%), and mild form of signs and symptoms in 10 patient (85%) and 1 (5%) patient has no form of signs and symptoms.

On 14th day there was severe form of signs and symptoms in 0 patients (0%), moderate form of signs and symptoms in 0 patients (0%), and mild form of signs and symptoms in 10 patient (50%) and 20 (100%) patients has no form of signs and symptoms.

On 21st day there was severe form of signs and symptoms in 0 patients (0%), moderate form of signs and symptoms in 0 patients (0%), and mild form of signs and symptoms in 0 patient (0%) and 20 (100%) patients has no form of signs and symptoms.

RESULTS

There is no significant difference between two groups in the results which are analysed statistically, but clinically group A was better than group B in terms of relief of symptoms quickly.

DISCUSSION

About clinical features

Effect on pain (Guda Gata Shula): In both the groups, pain in anal region was found in all patients (100%). There were no comparative significant statistical changes with respect to relieving of intensity of pain in both groups with p value p<0.001. But clinically there was significant outcome i.e., 90% in group A and 75% in group B. The grade of improvement i.e., 15% better in group A then group B.

Better clinical outcome in group A is may be due to Vata Pitta Shamaka, Vatanulomana, Vranaropaka properties of Shatadhouta Gritha. Vata Pitta Shamaka property of Shatadhouta Gritha is more evident in reducing Tenderness.

In group B also there was good clinical outcome observed. This may be due to Jatyadi Gritha which relaxes the anal musculature, enhances healing of ulcer. Once ulcer healed, bleeding gradually reduced

Effect on bleeding (Rakta Srava): In both the groups, Rakta Srava Bleeding in anal region was found in all patients (100%). There were no comparative significant statistical changes with respect to relieving of intensity of pain in both groups with p value p<0.001. But clinically there was significant outcome i.e., 95% in group A and 80% in group B. The grade of improvement i.e., 15% better in group A then group B.

Better clinical outcome in group A may be due to Raktha Sthambakaguna along with Sheetaveerya, Vata Pitta Shamaka, Vatanulomana, Vranaropaka properties of Shatadhouta Gritha has helped in controlling the bleeding quickly.

In group B also there was good clinical outcome observed. This may be due to Jatyadi Gritha which relaxes the anal musculature, enhances healing of ulcer. Once ulcer healed, bleeding gradually reduced.

Effect on Tenderness: In both the groups, tenderness in anal region was found in all patients (100%). There were no comparative significant statistical changes with respect to relieving of tenderness in both groups with p value p<0.001. But clinically there was significant outcome i.e., 100% in group A and 85% in group B. The grade of improvement i.e., 15% better in group A than group B.

Better clinical outcome in group A is may be due to Vata Pitta Shamaka, Vatanulomana, Vranaropaka, analgesic, anti-inflammatory properties of Shatadhouta Gritha. Vata Pitta Shamaka property of Shatadhouta Gritha is more evident in reducing Tenderness.

In group B also there was good clinical outcome observed. This may be due to Jatyadi Gritha which relaxes the anal musculature, increases blood circulation and thus relieves the intensity of the Tenderness.

Effect on sphincter tone: There were no comparative significant statistical as well as clinical changes with respect to relieving of sphincter tone in both groups (p value p<0.001). In group B there was good clinical outcome 90% observed and in Group A 85%. The difference of outcome is only 5%.
In group B there was good clinical outcome observed. This may be due to employment of Jatyadi Gritha which is more potential in relaxing the sphincter of anal canal.

In Group A also there was good clinical outcome. This may be due to Vatanulomana, spasmyolytic activities, and better lubrication of anal canal procured by Shata Dhouta Gritha.

**Overall Response**

At the end of treatment i.e., on 21st day, all the 20 patients (100%) in group A and 20 patients (100%) in group B showed good response where there was complete healing of fissure and relief from all associated symptoms were appreciated.

At the end of 14th day, 14 patients (70%) in group A and 10 patients (50%) in group B showed good response where there was healing of fissure and relief from all associated symptoms were appreciated. At the end of 14th day, 6 patients (30%) in group A and 10 patients (50%) in group B showed Moderate response where there was healing of fissure and moderate relief from all associated symptoms were appreciated.

Group A treated with Shatadhouta Grithamatra Basti were better responding in relieving Signs and Symptoms like Gudagata Shula, Raktrasrava, Tenderness whereas Group B patients treated with Jatyadi Gritha were better responding to Signs and Symptoms like Spincheter Spasm.

The good response in both the groups may be due to the therapeutic action of formulations, following Pathya and shorter duration of onset of disease. Moderate and Poor responses may be due to long duration of onset of ulcer, fibrosis of ulcer and not following the Pathya properly.

The results analyzed statistically were equally significant in both the groups and clinically group A had better in terms of bringing the results quickly and with minimal recurrence.

**CONCLUSION**

From the clinical study conducted on 40 patients of Gudaparikartika, through specific observations, following conclusions were drawn: On the basis of location, nature of pathology and features, Parikartika can be correlated to Fissure-in-ano. The incidence is predominantly seen in the middle age group, precisely in the age between 21-40 years. Improper dietary regimen and stressful life is found to have influenced the high incidence observed today. Passage of hard constipated stools is the prime cause of tear in the lower anal canal which results in excruciating pain during and after defecation, the cardinal feature of Fissure-in-ano. Timely intake of fibre rich food and sufficient fluids with regular exercise will regularize the bowel and promotes easy evacuation of stools thus help in healing of Fissure. Shatadhouta Gritha Matrabasti was more effective in acute cases and provides swift results in relieving Guda Gata Shula (90%), Gudagata Raktrasrava (95%), Tenderness (100%), Spincheter Spasm (85%). Jatyadi Gritha Matrabasti was more effective in chronic cases and provides gradual & effective results in relieving Gudagata Shula (75%), Gudagata Raktrasrava (80%), Tenderness (85%), Spincheter Spasm (90%). Matrabasti helps in relieving the sphincter spasm as there was retention of medicament; also, its contact with the lesion was there for longer duration and together helped in healing the fissure quickly. It lubricates the anal canal and provided easy evacuation of faeces and thus promotes healing of fissure.

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