ABSTRACT

Fissure in ano is an ulcer in the longitudinal axis of the lower anal canal. Commonly it occurs in the midline, posteriorly (more common in males), but can also occur in the midline anteriorly (more common in females). 95% of anal fissures in men are posterior; 5% are anterior. 80% of anal fissures in females are posterior; 20% are anterior. Anterior anal fissure is common in females.

The research work was aimed to evaluate the efficacy of Durvadi Ghrita in the management of Parikartika (Fissure - In - Ano). It was a clinical study. The age limitation was 21 - 60 years. 30 patients were taken for the study. They were advised strict fiber rich diet, exercise and plenty of fluid intakes. The study period was 21 days and follow up for 3 months. Observations were recorded in the concerned performa. Observations were statistically analyzed with Wilcoxon test. This showed statistically highly significant results. This study concludes that in Parikartika (Fissure - in - ano), Durvadi Ghrita appears to be effective in reducing signs & symptoms. Durvadi Ghrita is cost effective, easy to prepare and without any adverse effect.

Keywords Durvadi Ghrita, Parikartika, Fissure-in-ano.

INTRODUCTION: Principles of Ayurveda are interwoven with basic concept of life. The principles of Ayurveda are based on strict experimental studies of several years. Several Acharyas have tested these principles for many years and these principles have been given a place in Ayurvedic Samhita. In the era of fast food, there is irregularity in dietary habits and sedentary life style and due to these changes in diet and lifestyle; one is always under physical and mental stress. All these causes disturb in digestive system which results into many diseases and ano-rectal disorders constitute an important group. A disturb lifestyle pattern has very superior role to cause various types of anorectal disorders. Fast food, unhealthy diet, lack of physical activity, prolonged sitting, smoking, alcohol, tobacco, improper intake of water these all factors lead to Gastrointestinal tract disturbance which results irregular bowel habits which is a major factor to cause haemorrhoids, fissure-in-ano, ano-
rectal abscess, fistula-in-ano and other types of anorectal disorders.

Fissure-in-ano is very common anorectal disorder. It can be co-related with Parikartika in Ayurveda. Acharya Sushruta described Parikartika in ‘Vaman Virechan Vyapad Chikitsa’ (Treatment of side effects of therapeutic vomiting and medicated purgation in chikitsasthan)². Acharya Vagbhat has stated Parikartika in ‘Arishta Lakshan’³ (Unauspecious prognostic features). The major reference stated by Acharya Kashyapa is found in ‘Garbhhini Chikitsa’⁴ (ANC & PNC treatment). Parikartika occurs due to heen-mithyadi yog of Virechan Karma (mediated purgation), Bastikarma (mediated Enema) which exerts pressure on the mucous wall of guda and gudanalika results into ‘Shool’ (pain) and further stretching causes rupture of mucous wall and bleeding Per rectum as the name itself suggests the main symptom is severe pain which is cutting by scissor in nature.

Acharya Kashyapa has also described three types of Parikartika viz. Vataja, Pittaja and Kaphaja⁵. The treatment of fissure-in-ano depends on type of disease. In acute fissure-in-ano treatment is painkiller, stool softner, soothing ointment etc. In chronic fissures treatment is anal dilatation, sphincterotomy, fissrrectomy etc. but the complication of these procedures like recurrence, incontinence and pruritis are there.

According to Ayurvedic literature, there are several methods of treatment ie. Bhaishajya, kshara, shastra and agnikama⁶. Among them Bhaishajya karma (medicinal treatment) is the first line of treatment. Now a days various topical remedies are available for local application for wound healing in fissure-in-ano. In the present study, an effort is made to provide a standard and easily accessible treatment for fissure-in-ano from classical resources. Durvadi ghrita⁷ is having ingredients with Vrana Shodhan and Ropan properties which can help the Vrana (wound) to heal rapidly. Its base is Ghrita, Ghrita itself is having Sanskar Anuvartan and healing properties. Durvadi Ghrita is economic and having easily available ingredients. Due to this reason, it was selected for the clinical evaluation in the present study. Ayurvedic treatises speak about the importance of drugs as ‘Nothing in world exists which does not have the therapeutic utility.’ Taking this fact into consideration Ayurvedic physicians have formulated single as well as compound drug for cure as well as prevention of various ailments.

Selection of Drug:

In the present clinical research work, Durvadi Ghrita indicated for treatment of Parikartika.⁸ Ingredients of Durvadi...
Ghrita also have Vrana Shodhana and Ropana properties that can help the wound to heal rapidly. Durvadi Ghrita is Sneha Kalpana and based on Ghrita. Property of Ghrita has been mentioned as Vata-Pitta Shamaka, Madhura, Sheeta, Vishahara, Ropana. Ghrita is having also soothing properties. It forms a thin layer over the wound and allows early epithelization, also protects from invasion of any microbes. Ghrita is also Samskara Anuvarti. Ayurveda discriminates their particular features also and recommends the Go-Ghrita (cow Ghee) as best and the Ghrita of choice for both, food and medicinal purposes and in Ayurvedic Yoga if not specified, the Ghrita always applies to Go-Ghrita (Cow Ghee). The present study was aimed towards providing easily accessible economic treatment for the common ailments fissure-in-ano. Durvadi Ghrita (Ghrita, Durva, Kampillaka, Daruhriridra) is used for local application. It is a simplest and easy formula. Its Vrana Ropana and Shodhana properties are well known and unanimously accepted, due to its dramatic action on Vrana like conditions. And it is obviously best option because it removes the accumulated secretion in the fissure bed and also reduces the chances of secondary infection thus, it reduces the pain. By application of these Ghrita, accelerates the wound healing process.

Mode of Action:

Durvadi Ghrita is having properties like Shodhana, Vrana Ropana, Shothahara, Varna Prasadana, Shulahara especially Tridoshahara. Thus it removes the accumulated secretions in the fissure bed; it promotes healing and also reduces probable secondary infections.

Method of Administration:

Durvadi Ghrita Pichu in Guda-Marga
It accelerates the process of healing of the Vrana when applied locally.

AIMS AND OBJECTIVES:

AIMS:
‘To study the effect of Durvadi Ghrita in Parikartika w.s.r to Fissure-in-ano’

OBJECTIVES:
1. To review the available literature of Parikartika (Fissure-in-ano) as explained in Ayurveda and modern medical science.
2. To review the available literature regarding durvadi ghrita.
3. To observe the therapeutic effect of durvadi ghrita in the patients suffering from fissure in ano
4. To evaluate the efficacy and mode of action of Durvadi Ghrita in patients of Parikartika (Fissure-in-ano)

RESEARCH DESIGN

Sample size : 30 patients randomly selected.
Procedure : Per rectal application of Durvadi Ghrita Pichu 2 times daily
Duration : 21 days
INCLUSION CRITERIA:
- Patients diagnosed as having Parikartika (Fissure-in-Ano).
- Patient willing to undergo the trial.
- Patients of both sexes in between the age group of 20 to 60 years.

EXCLUSION CRITERIA:
- Patient who are not willing to undergo the trial.
- Patients having any ano-rectal disease other than fissure-in-ano.
- Patients having Parikartika (Fissure-in-Ano) secondary to Ulcerative colitis, Chron’s disease, Syphilis, Tuberculosis and CA of Rectum of anal canal.
- Patients associated with uncontrolled systemic diseases like diabetes, hypertension etc.
- Patients with infectious diseases and immuno suppressive diseases like HIV and HbsAg.
- Pregnant women.

DIAGNOSTIC CRITERIA:
Diagnosis was made on the basis of Lakshanas of Parikartika and per rectal examination.

INVESTIGATIONS:
1. Blood tests:
   - Hb%, TLC, DLC, ESR, R.B.S, BT, CT, PTI, HIV 1&2, HbsAg
2. Urine Examination:
   - Sugar, Albumin, Microscopic

ASSESSMENT CRITERIA: Assessment before and after treatment is based on self-assessment score.

1. Pain in anal region (Gudagata Shoola)
   - 0- No Pain
   - 1- Mild Pain
   - 2- Moderate Pain
   - 3- Severe Pain

2. Burning sensation (Gudadaha)
   - 0- No burning
   - 1- Mild burning
   - 2- Moderate burning
   - 3- Severe burning

3. Bleeding per rectum (Gudagata Rakta Srava)
   - 0- No bleeding
   - 1- Mild bleeding (<5 drops)
   - 2- Moderate bleeding (5 -10 drops)
   - 3- Severe bleeding (>10 drops)

4. Size of ulcer:
   - 0 - No ulcer
   - 1 - <5mm
   - 2 - 5 – 10mm
   - 3- 10- 15mm
   - 4 - 15 – 20mm
   - 5 - >20mm

5. Position of ulcer
   - Anterior
   - Posterior

6. Sphincter Spasm
   - Grade 0 - Normal Sphincter spasm
Grade 1 - Mild Sphincter spasm
Grade 2 - Moderate Sphincter spasm
Grade 3 - Severe Sphincter spasm

Over all Assessment were based on:
A. Relief of Symptoms before and after treatment. The results will be categorized as,
Complete Relief - 100%
Marked Improvement - Above 75% Improvement
Moderate Relief - 50 to 75% Improvement
Mild Relief - 25 to 50% Improvement
No Relief - Below 25% Improvement
B. Healing of Ulcer: Based on healing of Ulcer the results were categorized as,
No change in ulcer - No Relief
Partial healing - Moderate Relief
Complete healing - Complete Relief
C. Overall assessment was done based on the improvement in subjective and objective score before and after treatment which was subjected to statistical analysis.

Follow up: After stopping the treatment the patient will be followed at the interval of 15 days for three months. Observations were recorded in concerned Performa. Statistical Analysis is done by Wilcoxon signed rank test.
EFFECT ON SUBJECTIVE AND OBJECTIVE PARAMETERS :- Table No.1

<table>
<thead>
<tr>
<th>S. NO.</th>
<th>PARAMETER</th>
<th>BT</th>
<th>AT</th>
<th>PERCENTAGE RELIEF</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>CONSTIPATION</td>
<td>24</td>
<td>12</td>
<td>50%</td>
</tr>
<tr>
<td>2.</td>
<td>ANAL PAIN</td>
<td>30</td>
<td>12</td>
<td>60%</td>
</tr>
<tr>
<td>3.</td>
<td>BLEEDING PER RECTUM</td>
<td>22</td>
<td>10</td>
<td>54.54%</td>
</tr>
<tr>
<td>4.</td>
<td>BURNING SENSATION IN ANUS</td>
<td>30</td>
<td>12</td>
<td>60%</td>
</tr>
<tr>
<td>5.</td>
<td>SPHINCTER SPASM</td>
<td>30</td>
<td>7</td>
<td>76.66%</td>
</tr>
<tr>
<td>6.</td>
<td>ULCER</td>
<td>30</td>
<td>11</td>
<td>63.33%</td>
</tr>
</tbody>
</table>

Graph No.1 EFFECT ON SUBJECTIVE AND OBJECTIVE PARAMETERS :-

EFFECT OF THERAPY :- Table no. 2

<table>
<thead>
<tr>
<th>S. NO.</th>
<th>PARAMETER</th>
<th>RELIEF</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>CONSTIPATION</td>
<td>Moderate Relief</td>
</tr>
<tr>
<td>2.</td>
<td>ANAL PAIN</td>
<td>Moderate Relief</td>
</tr>
<tr>
<td>3.</td>
<td>BLEEDING PER RECTUM</td>
<td>Moderate Relief</td>
</tr>
<tr>
<td>4.</td>
<td>BURNING SENSATION IN ANUS</td>
<td>Moderate Relief</td>
</tr>
<tr>
<td>5.</td>
<td>SPHINTER SPASM</td>
<td>Marked improvement</td>
</tr>
<tr>
<td>6.</td>
<td>ULCER</td>
<td>Moderate healing</td>
</tr>
</tbody>
</table>

OVERALL ASSESSMENT OF THERAPY : Statistically significant in all the parameters.

DISCUSSION: Fissure-in-ano is an ailment that does not have any direct correlation in the Ayurvedic text. 'Parikartika'11a condition occurring due to improper administration of Virechana and Basit can be compared with fissure-in- ano, since both the conditions occur in Guda and have similar clinical manifestations. Thus fissure-in-ano can be compared with Parikartika as follows: 1. Parikartika is characterized by Kartanavat and Chedanavat Shoola in
Guda, Basti and Nabhi. Similarly fissure-in-ano is also characterized by sharp cutting pain in anal region.

2. In Parikartika Guda-Kshata is result of Virechana Atiyoga. In the same way, fissure-in- ano is evident by the longitudinal tear in the anal canal. Since the location, nature of pathology and the predominant clinical feature are same, it can be said that the condition Parikartika is the clinical condition known in current surgical practice as fissure-in-ano. In this study Durvadi Ghrita was selected to evaluate its role in the management of Parikartika because it has Shodhana, Vrana Ropana, Shothahara, Varna Prasadana and Shulahara properties along with Tridosahara, Rakta Stambhaka and Rakta Shodhaka actions.

Age: Maximum 40% patients were in the age group of 31 –40 years.

Sex: Among 30 patients, 60 % were male and 40% were female.

Occupation: Among 30 patients, 30% were from businessman class

Religion: Out of 30 patients, 86.66% were Hindus.

Prakriti: Maximum no. of patients were belonging to the Vata- Pitta prakriti ie. 50%. From this study confirming that this disease occurs more in the Vata- Pitta prakriti persons.

Family History : Out of 30 patients, 26.66% patients had positive family history.

Constipation: Out of 30 patients, 63.33% patients were having constipation and often passes thick and hard stool, due to which overstretching of anal folds occurs resulting into Fissure.

Socio-Economic Status: Among 30 patients, maximum number of patients were from above poverty line ie.83.33% and 16.66% from below poverty line.

Diet: While discussing the nature of diet, it was found that mixed diet patients were majority in number (53.33%). Hence the patients with mixed dietary habits are more susceptible due to low fiber content and spicy non-vegetarian diet.

Effect on Pain: Among 30 patients, 100 % patients had pain during and after defe- cation before treatment. After treatment at the end of 21st day therapy 60% patients got relief; clearly the effects of Durvadi Ghrita in relieving the pain of the patients of fissure in ano. The anti inflammatory and analgesic property of Durva in Durvadi Ghrita helps to relieve the pain and inflammation.

Effect on Length of Ulcer: Among 30 patients, 53.33 % patients were with < 5mm length of ulcer, 36.66 % patients were with 5 –10 mm length of ulcer and remaining 10% were with 10-15 mm length of ulcer before treatment. After
treatment, 63.33% patients showed a complete healing of the ulcer at the end of the trial. It is obvious from the foregoing that the effect of Durvadi Ghrita in providing the relief in the ulcer of the patients of fissure-in-ano. The relief in ulcer may be due to Vrana Shodhana and Vrana Ropana property of Kampillaka in Durvadi Ghrita.

**Effect on Bleeding per Rectum:** Among 30 patients, 73.33% patients have bleeding per rectum during and after defecation before treatment. After treatment 54.54% patients got complete relief in bleeding at the end of 21st day treatment. It is clear from the above results that the effect of Durvadi Ghrita in providing the relief in the bleeding per rectum of the patients of fissure in ano was far better in. It mainly occurs because of Rakta Stambhana, Rakta Shodhana and Ropana property of Durvadi Ghrita.

**Effect on Sphincter Spasm:** Among 30 patients, all patients had sphincter spasm before treatment. After treatment, 76.66% patients showed complete relief in sphincter spasm. It is evident from the above results that the effect of Durvadi Ghrita in providing the relief in the sphincter spasm of the patients of fissure in ano was far better. It mainly occurs due to muscle relaxation by Snehana action and Vedana Shamaka property of Durvadi Ghrita.

**Significant Effects of Durvadi Ghrita:** 21 days local application of Pichu of Durvadi Ghrita provided significantly relief in Sphincter Spasm (76.66%), Guda ulcer (63.33%), 60% relief in anal pain and burning sensation. 54.54% relief in bleeding per rectum, 50% relief in constipation.

**Probable Mode of Action**

As mentioned earlier the healing of fissure is different from the healing of any other ulcer because in the former there is constant contamination of the wound by faeces and its frequent friction with the mucosa while there is continuous spasm of the sphincteric muscle. They are the important factors which keep a fissure away from normal healing. In such situation a drug which produces a soothing effect, Vata-Pittahara, Vedna Sthapana, Vrana Shodhana, Vrana Ropana and influences reduction of inflammation will be more suitable than drug which may act as the best healer of ulcer on other parts of the body. Durvadi Ghrita probably has these properties. But as far as main symptoms are concerned pain (Burning and Cutting) may be relieved due to the action of Vedna Sthapana, Dahaprasamana and Vata Pittahara. It’s well known fact that the Vata and Pitta Dosha are predominant in pain as well as in fissure. According to modern pharmacological action consult, this drug has constituents like β-sitosterol,
flavanoids, alkaloids, glycosides and triterpenoides which are responsible for analgesic and anti-inflammatory and wound healing property and steroidal activity of the compound. It is the amount of inflammation and spasm which is responsible for producing the agonizing pain in cases of fissure-in-ano. Durvadi Ghrita probably is able to counteract these two factors more efficiently than the other drugs.

**CONCLUSION:-** The clinical study was carried out to evaluate the efficacy of Durvadi Ghrita application in the management of Guda Parikartika, On the basis of Ayurvedic texts, views of ancient scholars, facts and observations done in the present clinical research work some points can be concluded like –

- The site of Parikartika is Guda, which is similar to the site of fissure-in-ano.
- Vata and Pitta Dosha have dominancy in the development of the disease Parikartika, but Vata is predominant.
- Sedentary life style and hard work and stressful life too, like businessmen, in the modern era, is having a key role in occurrence of the disease Parikartika (fissure-in-ano).
- Fissure-in-ano was present commonly at 6 o’clock position and most of the time it is a single fissure only. However the fissure at 12 o’clock or at other site may also be found either alone or in combination.
- Excessive consumption of Lavana, Katu, Tikta, Ruksha, Ushna Ahara and irregular diet and diet timings are the main precipitating factors of this condition.
- For the management of topical application of Durvadi Ghrita.
- The most evident symptom present i.e. pain and spasm of anal sphincter were relieved by the application of Durvadi Ghrita.
- In the cases of Rakta Srava, (bleeding) in fissure-in-ano the application of Durvadi Ghrita showed effective results and good control after 7 – 14 days.
- In the cases of ulcer size in fissure-in-ano the application of Durvadi Ghrita showed effective results in healing and good control after 7 – 14 days.
- In the cases of sphincter tone, during therapy at the end of the trial (76.66%) patients got Complete relieved.
- In the follow up study, it was observed that the results achieved in both the groups are effective and stable but in cases of Durvadi Ghrita observed fast relived in pain, bleeding, ulcer, tonicity of sphincter.
- The use of Durvadi Ghrita has a definite role in the treatment of fissure-in-ano in terms of earlier relief in cardinal and general symptoms and quick healing of ulcer.
• In the present study it can be concluded that application of Durvadi Ghrita is superior in the management of fissure-in-ano (Parikartika)¹².

• Durvadi Ghrita was found effective in relieving the feature of disease Parikartika (fissure-in-ano).

• Durvadi Ghrita is easily applicable, cost effective and can be widely used in general practice.

SUGGESTION:-
As chronic conditions may need long term therapy for achieving better results and to avoid reoccurrence so, in future same topic should be taken for further research to overcome some lacunas if found, for better results.

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