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Research Article

A COMPARATIVE STUDY OF DIFFERENT MODALITIES IN THE MANAGEMENT OF FISSURE-IN-ANO *(PARIKARTIKA)*

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ABSTRACT

Among anorectal disorders, *Parikartika* is a common and painful ailment that resembles an anorectal fissure. A patient with *Parikartika* experiences excruciating agony during and after defecation, which last for a while and is sometimes accompanied by mild to moderate bleeding. Modern lifestyle changes, including sedentary work schedules, elevated stress levels, and unhealthy eating and sleeping patterns, are causing a steady rise in a number of lifestyle illnesses. **Aim and Objective:** The aim is comparison between Ayurvedic therapy, lateral sphincterotomy and lord's dilatation assess in the management of *Parikartika* (Acute fissure-in-ano). **Materials and Methods:** A total of 60 patients of acute fissure-in-ano were selected and randomly allocated into three groups (20 in each group). In Group A (n = 20), Ayurvedic remedies were given. Group B (n=20), were treated with Lord's dilatation & Group C (n=20), were treated with Lateral Internal Sphincterotomy. The fissure was treated for four weeks, and the results were evaluated using the graded system that was chosen. **Results:** The study showed that Group A remedies were more effective than Group B & C in treating *Parikartika*. In this study, group-A showed maximum improvement in all assessment criteria as compare to other groups. **Conclusion:** The outcome revealed a better therapeutic efficacy of Ayurvedic remedies in the whole symptom of *Parikartika* without any adverse effects.

INTRODUCTION

A painful linear rip that runs from the anal verge proximally towards the dentate line but stops short of it is called an anal fissure in the lower end of the anal canal. It is commonly known as an ischemic ulcer. Ano-dermal blood flow is negatively correlated with resting pressure of anus. Increasing activity of the internal anal sphincter may decrease the ano-dermal blood supply by compressing the arterioles.

The prevalence is 6% to 15% of proctology referrals. Anal fissures affect 1 in 350 persons, occurring equally frequently in males and women and most frequently in those between the ages of 15 and 40.[1]

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It is divided into two types based on clinical symptoms: Acute fissure-in-Ano and Chronic fissure-in-Ano. 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] The most common causes of fissure-in-ano are constipation, spasm of internal, or secondary due to systemic conditions like ulcerative colitis, Crohn's disease, tuberculosis etc and also when too much of skin is removed in haemorrhoidectomy or surgeries of fistula-in-ano.

On the basis of symptoms, such as cutting and burning pain in the anus, "*Parikartika*" was determined to be similar to fissure-in-ano in Ayurvedic *Samhitas*; hence, *Parikartika* is deemed to be fissure-in-ano in this study. According to Acharya Sushruta, "*Parikartika*" refers to a *Guda* illness marked by searing and cutting pain. Similarly, *Dalhana* and *Jejjata* have described *Parikartika* as a condition that causes anus cutting pain. In Ayurveda, thorough explanation

of *Parikartika* has been found in scattered manner as a complication of various diseases such as *Vatika Jwara*,[3] *Vatika Pakwa Atisara*,[4] *Sahaja Arsha*,[5] *Kaphaja Arsha*, [6] *Arsha Purvarupa*, [7] *Udavarta* [8] and in *Garbhani*, [9] unlawful administration of purgatives or enema.[10]

There is already a larger prevalence of fissure-in-ano, and urbanisation has exacerbated it, thus an alarming rise in fissure-in-ano. In modern management, the treatment for fissure is most likely of conservative nature with oral painkillers, stool softeners, smoothening ointments or injection of long-acting anaesthetizing drug. Surgical procedures like Lords dilatation, sphincterotomy, fissurectomy and excision of anal ulcer gives relief, but complications like incontinence, stenosis and stricture formation are very common.[11]

This study had been designed to assess the efficacy of comparative efficacy of Ayurvedic remedies (i.e., *Snehana* (with *Narayana taila*), *Swedan, Yastimadhu Siddha ghrita Anuvasana basti, Triphala churna, Jatyadi ghrita* (local application), *Avagaha sweda*, and Lord's dilatation and Lateral internal sphincterotomy which is already proven as standard in the management of fissure-in-ano.

MATERIAL AND METHODS

Selection of Patients

60 patients, attending OPD/IPD of department of Shalya Tantra SS Hospital, IMS, BHU, with characteristic features of chronic fissure-in-ano, were randomly selected for the proposed study, between the age group of 18 years to 70 years, of both sexes, and divided into three groups named as Group A, B and C. The study was approved by the Institutional Ethics Committee of IMS, BHU, Varanasi, (reference number Dean/2020/EC/2340). The trial had been also registered in the clinical trial registry of India (CTRI No. REF/2021/10/048215).

AIMS & OBJECTIVES

- To assess the spasm of anal sphincter in the patient of fissure-in-ano.
- To assess the clinical features of fissure-in-ano on the basis of subjective criteria.
- Comparison between Ayurvedic therapy, lateral sphincterotomy and lord's dilatation.

Inclusion Criteria

Patients having chronic anal fissure in the anterior, and posterior anal midline.

Exclusion Criteria

- HIV, HBsAg and anti-HCV positive patient, uncontrolled diabetic patient.
- Pregnant female
- Patient having carcinoma of rectum and anal canal, Chronic fissure with large multiple tag and abscess, fissure–in-ano followed by anal stricture, Patient having myasthenia or any muscle disease.
- Patient having fissure d/t other systemic disorder-ulcerative colitis, Crohn's disease, inflammatory bowel disease, tuberculosis.

Investigations

Standard hemogram prior to treatment, the following tests were performed to determine the patients' suitability for anaesthesia and surgery: Hb%, total leucocyte count, differential leukocyte count, bleeding time, clotting time, erythrocyte sedimentation rate, fasting blood sugar, postprandial blood sugar, blood urea, serum creatinine, HIV, VDRL, hepatitis B surface antigen, urine, and stool examination. For individuals older than 40, an ECG and chest X-ray were performed to look for any undiagnosed heart and lung conditions.

MATERIALS AND METHODOLOGY

Group A: This group has been treated with only *Ayurvedic* remedies i.e., *Snehana (*with *Narayana taila), Swedan, Yastimadhu Siddha ghrita Anuvasana basti, Triphala churna, Jatyadi ghrita* (local application), *Avagaha sweda*.

Group B: This group has been treated with Lord's dilatation, laxative (Syrup Lactulose 15ml at bed time), analgesic (Tablet Diclofenac 50mg 1 BD), antibiotic (Capsule Amoxi-clv 500/125 mg 1BD), hot sitz bath.

Group C: This group has been treated with Lateral Internal Sphincterotomy, laxatives (Syrup Lactulose 15 ml at bed time), analgesic (Tablet Diclofenac 50 mg 1 BD), antibiotic (Capsule Amoxi-clv 500/125 mg 1BD), hot sitz bath.

Duration of Treatment

Total duration of therapy: One month, follow-up: every 15 days.

Parameters for the Assessment of therapeutic response

Evaluation of clinical manifestation-

The gradation adopted for assessment of results is depicted below-

Signs and symptoms rating scales as follows

Pain

0	No pain	Absence of pain
1	Mild pain	Mild pain tolerable pain, no analgesics required
2	Moderate pain	Tolerable after taking analgesics
3	Severe pain	Not tolerable, needs constant attention

Bleeding per rectum

0	No bleeding per rectum
1	Bleeding present streak wise on stool
2	1-2 drops after defecation
3	>3 drops after defecation

Burning sensation

0	No burning sensation
1	Mild burning sensation (during defecation)
2	Moderate burning sensation (during and after defecation persists for 5- 10 min)
3	Severe burning sensation (persists >10 min)

Itching around anus

0	No itching
1	Mild itching
2	Moderate itching
3	Severe itching

Constipation

Constipation-according to consistency

0	No constipation
1	Dry stool
2	Hard stool
3	Pellet like

Frequency of bowel movements

0	No constipation
1	1-2 times in 2 days
2	2 times per week
3	once per week

2. Ano-rectal Manometry

Assessment of Ano rectal function was done by using Ano-rectal manometry.

These are the parameters for the assessment.

1. Median resting pressure

2. Median squeeze pressure

Calculated by volume of the balloon at urge/pressure at urge

Statistical test

The analysis of the effects of the therapy were based on Chi Square test, Kruskal Wallis test, Wilcoxon signed ranks test, Paired t- test, and One-way ANOVA test.

Details about trial drugs

Yashimadhu Siddha Ghrita: Ghrita was prepared by using cow's ghee and *Yashimadhu.*

Table 1: *Triphala Churna*

1	*Haritaki*	*Terminalia chebula* Retz.	Fruit	1 part
2	*Bibhitaki*	*Terminalia bellirica* Roxb.	Fruit	1 part
3	*Amalaki*	*Emblica officinalis* Gaertn	Fruit	1 part

Table 2: *Jatyadi Ghrita*

1	*Chamelee (Jati)*	*Jasminum officinale* Linn.	Flower, leaf, root	1 Part
2	*Nimba*	*Azadirachta indica*	Leaf, seed, stem bark, oil	1 Part
3	*Patola*	*Trichosanthes dioica* Roxb	Leaves	1 Part
4	*Kutaki*	*Pichrohiza Kurroa* Royle	Root	1 Part
5	*Haridra*	*Curcuma longa* Linn.	Rhizome	1 Part
6	*Daruharidra*	*Berberis aristata* DC	Root, stem	1 Part
7	*Sariva*	*Hemidesmus indicus* Linn.	Root	1 Part
8	*Manjistha*	*Rubia cordifolia* Linn.	Root	1 Part
9	*Khash*	*Vetiveria zinzioids* Linn.	Root	1 Part
10	*Bees wax (Mom)*	*Cera alba*		1 Part
11	*Tuttha*	-		1 Part
12	*Yasthimadhu*	*Glycyrrhiza glabra*	Root	1 Part
13	*Karanja*	*Pongamia pinnata* Linn.	Seed, stem, leaves	1 Part

Table 3: *Rasnadi Guggulu*

1	*Rasna*	*Pluchea lanceolata*	Leaf, root	1 Part
2	*Guduchi*	*Tinospora cordifolia*	Root, stem	1 Part
3	*Eranda*	*Ricinus communis* Linn.	Root, seed, oil, leaves	1 Part
4	*Devdaru*	*Cedrus deodara*	Stem bark	1 Part
5	*Shunthi*	*Zingiber officinale*	Rhizome	1 Part
6	*Guggulu*	*Commifora mukul*	Gum resin	1 Part

OBSERVATION

The maximum patients belonged to 40-49 years of age (28.33%) and male 56.67% patients were more. On per rectal examination, maximum patients 68.75% were having ulcer (fissure) at posterior site, 43.3% patients were with bowel frequency 2 times per day, (51.7%) were with bowel evacuation times 1-10 min.

RESULTS

Effect of therapy

Pain

In Group A, before treatment, 55.6% patients complaining about mild pain, 27.8% patients had moderate pain and 16.6% patients complaining severe pain. After treatment 72.2% patients had no pain, 27.8% had mild pain. In Group B, before treatment 47.1% patients had mild pain, 41.2% patients had moderate pain and 11.7% patients had severe pain. After treatment 47.1% patients had no pain, 41.2% had mild pain, 11.7% had moderate pain. In Group C, before treatment, 43.8% patients had mild pain, 37.5% patients had moderate pain and 18.7% patients complaining severe pain. After treatment 56.2% patients had no pain, 37.5% had mild pain, 6.3% had moderate pain. In all three groups, the severity of pain decreases after treatment with p=0.000, which was statistically highly significant. In between group comparison, before treatment (p=0.834) and after treatment (p=0.241) shows that statically no significant changes present in before and after treatment.

Table 4: Effect on pain at anal region in all three groups

Group	Grade (Pain per rectum)	BT (%)	AT (%)	Z	P
Group A	0	0.00	72.2	3.874	0.000
	1	55.6	27.8		
	2	27.8	0.00		
	3	16.6	0.00		
Group B	0	0.00	47.1	3.690	0.000
	1	47.1	41.2		
	2	41.2	11.7		
	3	11.7	0.00		
Group C	0	0.00	56.2	3.704	0.000
	1	43.8	37.5		
	2	37.5	6.3		
	3	18.7	0.00		

Burning sensation per rectum

In Group A, before treatment, 11.2% of patients had no burning sensation, 44.4% patients had mild burning sensation, 44.4% patients had moderate burning sensation. After treatment, 88.9% patients had no burning sensation, 11.1% had mild burning sensation. In Group B, before treatment, 5.9% of patients had no burning sensation, 52.9% patients had mild burning sensation and 41.2% patients had moderate burning sensation. After treatment, 58.8% patients had no burning sensation, 41.2% had mild burning sensation. In Group C, before treatment, 12.5% patients had no burning sensation, 62.5% patients had mild burning sensation and 25.0% patients had moderate burning sensation. After treatment, 81.2% patients had no burning sensation, 18.8% had mild burning sensation. In all three groups, the severity of burning sensation decreases after treatment with p=0.000, which is statistically highly significant. In between group comparison, before treatment (p=0.498) and after treatment (p=0.100) shows that statically no significant changes present in before and after treatment.

Table 5: Effect on burning sensation at anal region in all three groups

Group	Grade	Burning sensation per rectum		Z	P
		BT	AT		
Group A	0	11.2	88.9	3.640	0.000
	1	44.4	11.1		
	2	44.4	0.00		
	3	0.00	0.00		
Group B	0	5.9	58.8	4.000	0.000
	1	52.9	41.2		
	2	41.2	0.00		
	3	0.00	0.00		
Group C	0	12.5	81.2	3.638	0.000
	1	62.5	18.8		
	2	25.0	0.00		
	3	0.00	0.00		

Bleeding per Anum

In Group A, before treatment, 27.8% of patients had no bleeding per anum, 44.4% patients had grade-1, 22.2% patients had grade-2, and 5.6% patients had grade-3 bleeding per anum. After treatment 83.3% patients had no bleeding per anum, 16.7% had grade-1. In Group B, before treatment, 47.1% patients had no bleeding per anum, 35.3% patients had grade-1, (17.6%) patients had grade-2. After treatment, 64.7% patients had no bleeding per Anum, 35.3% had grade-1. In Group C, before treatment, 31.2% patients had no bleeding per anum, 50.0% patients had grade-1, 18.8% patients had grade-2. After treatment, 74.5% patients have no bleeding per anum, 25.5% had grade-1 bleeding per anum. In all three groups, the severity of bleeding per anum decreases after treatment which is statistically highly significant. In between group comparison, before treatment (p=0.465) and after treatment (p=0.456) shows that statically no significant changes present in before and after treatment.

Table 6: Effect on bleeding per anum in all three groups

Group	Grade	Bleeding per Anum		Z	P
		BT	AT		
Group A	**0**	27.8	83.3	3.358	0.001
	1	44.4	16.7		
	2	22.2	0.00		
	3	5.6	0.00		
Group B	**0**	47.1	64.7	2.449	0.014
	1	35.3	35.3		
	2	17.6	0.00		
	3	0.00	0.00		
Group C	**0**	31.2	74.5	2.887	0.004
	1	50.0	25.5		
	2	18.8	0.00		
	3	0.00	0.00		

Itching in perianal region

In Group A, before treatment, 22.2% patients had no itching, 50.0% patients complaining about mild itching, 22.2% patients had moderate itching and 5.6% patients had severe itching. After treatment, 83.3% patients had no itching, 16.7% had mild itching. In Group B, before treatment, 5.9% patients had no itching, 58.8% patients had mild itching, 29.4% patients had moderate and 5.9% patients had severe itching. After treatment, 70.6% patients have no itching, 29.4% had mild itching. In Group C, before treatment, 25.0% of patients have no itching, 62.5% patients had mild itching, 12.5% patients had moderate itching. After treatment 75.0% patients had no itching, 25.0% had mild itching. In all groups, the severity of itching decreases after treatment which is statistically highly significant. In between group comparison, before treatment (p=0.179) and after treatment (p=0.670) shows that statically no significant changes present in before and after treatment.

Table 7: Effect on itching in perianal region in all three groups

Group	Grade	Itching in perianal region		Z	P
		BT	AT		
Group A	0	22.2	83.3	3.494	0.000
	1	50.0	16.7		
	2	22.2	0.00		
	3	5.6	0.00		
Group B	0	5.9	70.6	3.819	0.000
	1	58.8	29.4		
	2	29.4	0.00		
	3	5.9	0.00		
Group C	0	25.0	75.0	3.887	0.000
	1	62.5	25.0		
	2	12.5	0.00		
	3	0.00	0.00		

Constipation A/C to consistency

In Group A, before treatment, A/C to consistency- 27.8% patients had no constipation, (22.2%) patients had grade-1, 33.3% patients had grade-2, 16.7% patients had grade-3 constipation. After treatment 83.3% patients had no constipation, 16.7% had grade-1. In Group B, before treatment, 5.9% patients had no constipation, 35.3% patients had grade-1, 41.2% patients had grade-2, and 17.6% patients had grade-3 constipation. After treatment (70.6%) patients have no constipation, 17.6% had grade-1, 11.8% had grade-2. In group B, the severity of constipation decreases after treatment with p=0.000, which is statistically highly significant. In Group C, before treatment, 18.8% patients had no constipation, 43.7% patients had grade-1, 37.5% patients had grade-2. After treatment, 81.2% patients had no constipation, 18.8% had grade-1. In all groups, the severity of constipation decreases after treatment which is statistically highly significant. In between group comparison, before treatment (p=0.287) and after treatment (p=0.531) shows that statically no significant changes present in before and after treatment.

Table 8: Effect on constipation A/C to consistency in all three groups

Group	Grade	Constipation A/C to consistency		Z	P
		BT	AT		
Group A	0	27.8	83.3	3.256	0.001
	1	22.2	16.7		
	2	33.3	0.00		
	3	16.7	0.00		
Group B	0	5.9	70.6	3.640	0.000
	1	35.3	17.6		
	2	41.2	11.8		
	3	17.6	0.00		
Group C	0	18.8	81.2	3.176	0.001
	1	43.7	18.8		
	2	37.5	0.00		
	3	0.00	0.00		

Constipation A/C to Frequency

In Group A, before treatment, A/C to frequency- 11.2% patients had no constipation, 44.4% patients had grade-1, 44.4% patients had grade-2. After treatment, 83.3% patients had no constipation, 16.7% had grade-1. In Group B, before treatment, 5.9% patients had no constipation, 52.9% patients had grade-1, 41.2% patients had grade-2 patients had grade-3 constipation. After treatment, 70.6% patients had no constipation, 29.4% had grade-1. In Group C, before treatment, 12.5% patients had no constipation, 62.5% patients had grade-1, 25.0% patients had grade-2 constipation. After treatment, 81.2% patients had no constipation, 18.8% had grade-1. In all groups, the severity of constipation, A/C to Frequency decreases after treatment which is statistically highly significant. In between group comparison, before treatment (p=0.498) and after treatment (p=0.628) showed that statically no significant changes present in before and after treatment.

Table 9: Effect on constipation A/C to Frequency in all three groups

Group	Grade	Constipation A/C to Frequency		Z	P
		BT	AT		
Group A	0	11.2	83.3	3.666	0.000
	1	44.4	16.7		
	2	44.4	0.00		
	3	0.00	0.00		
Group B	0	5.9	70.6	3.819	0.000
	1	52.9	29.4		
	2	41.2	0.00		
	3	0.00	0.00		
Group C	0	12.5	81.2	3.638	0.000
	1	62.5	18.8		
	2	25.0	0.00		
	3	0.00	0.00		

Resting Pressure

Resting Pressure Maximum was 109.61 ± 13.526, 109.41 ± 15.256 and 109.76 ± 13.844 in Group A, Group B and Group C respectively. It changes to 91.33 ± 11.334, 84.23 ± 9.666 and 82.56 ± 8.869 in Group A, Group B and Group C respectively. Group A, B and C had shown highly significant improvement (p=0.000). Inter group comparison showed significant improvement.

Resting Pressure Medium was 96.28 ± 13.594, 95.47 ± 11.582 and 94.13 ± 9.783 in Group A, Group B and Group C respectively. It changes to 80.00 ± 10.997, 75.47 ± 8.140 and 72.94 ± 6.082 in Group A, Group B and Group C respectively. Group A, B and C had shown highly significant improvement (p=0.000). Inter group comparison showed non-significant improvement.

Resting Pressure Minimum was 82.17 ± 10.673, 81.00 ± 12.384 and 78.75 ± 8.760 in Group A, Group B and Group C respectively. It changes to 66.89 ± 8.072, 61.18 ± 8.087 and 59.38 ± 5.49 in Group A, Group B and Group C respectively. Group A, B and C had shown highly significant improvement (p=0.000). Inter group comparison showed highly significant improvement.

Table 10: Effect on Resting Pressure in all three groups

Variable	Group	Mean value		Paired t Test				Remark
		BT	AT	Difference	SDM (±)	t	P	
Resting Pressure Maximum	A	109.61	91.33	18.278	± 6.304	12.301	0.000	HS
	B	109.41	84.23	25.176	± 6.588	15.756	0.000	HS
	C	109.76	82.56	27.750	± 6.981	15.900	0.000	HS
Resting Pressure Medium	A	96.28	80.00	16.278	± 6.086	11.348	0.000	HS
	B	95.47	75.47	20.000	± 5.477	15.055	0.000	HS
	C	94.13	72.94	21.188	± 5.788	14.643	0.000	HS
Resting Pressure Minimum	A	82.17	66.89	15.278	± 3.832	16.916	0.000	HS
	B	81.00	61.18	19.824	± 6.304	14.470	0.000	HS
	C	78.75	59.38	19.375	± 5.045	15.362	0.000	HS

Squeeze Pressure

Squeeze Pressure Maximum was 194.11 ±19.287, 189.35 ± 17.128 and 183.06 ± 18.131 in Group A, Group B and Group C respectively. It changes to 146.78 ± 13.515, 144.94 ± 15.233 and 136.31 ± 15.873 in Group A, Group B and Group C respectively. Group A, B and C had shown highly significant improvement (p=0.000). Inter group comparison showed non-significant improvement.

Squeeze Pressure Medium was 172.44 ± 21.228, 160.82 ± 18.084 and 154.75 ± 23.000 in Group A, Group B and Group C respectively. It changes to 125.78 ± 15.276, 118.24 ± 15.746 and 114.50 ± 16.994 in Group A, Group B and Group C respectively. Group A, B and C had shown highly significant improvement (p=0.000). Inter group comparison showed non-significant improvement.

Squeeze Pressure Minimum was 144.78 ± 26.579, 134.59 ± S 18.313 and 128.25 ± 18.574 in Group A, Group B and Group C respectively. It changes to 109.44 ± 13.648, 98.65 ± 5.989 and 95.19 ± 8.304 in Group A, Group B and Group C respectively. Group A, B and C had shown highly significant improvement (p=0.000). Inter group comparison showed highly significant improvement.

Table 11: Effect on Squeeze Pressure in all three groups

Variable	Group	Mean value		Paired t Test				Remark
		BT	AT	Difference	SDM (±)	t	P	
Squeeze Pressure Maximum	A	194.11	146.78	47.333	± 10.847	18.515	0.000	HS
	B	189.35	144.94	44.412	± 7.738	23.663	0.000	HS
	C	183.06	136.31	46.750	± 11.975	15.66	0.000	HS
Squeeze Pressure Medium	A	172.44	125.78	46.667	± 11.125	17.797	0.000	HS
	B	160.82	118.24	42.588	± 8.508	20.639	0.000	HS
	C	154.75	114.50	40.250	± 10.755	14.970	0.000	HS
Squeeze Pressure Minimum	A	144.78	109.44	35.333	± 15.293	9.802	0.000	HS
	B	134.59	98.65	35.941	± 13.750	10.778	0.000	HS
	C	128.25	95.19	33.063	± 12.772	10.355	0.000	HS

Urge Volume

Urge Volume was 173.89 ± 27.470, 168.82 ± 20.881 and 170.00 ± 26.331 in Group A, Group B and Group C respectively. It changes to 152.78 ± 8.264, 153.53 ± 11.695 and 161.25 ± 18.574 in Group A, Group B and Group C respectively. Group A and B had shown highly significant improvement (p=0.000) and group C shown significant improvement. Inter group comparison showed non-significant improvement.

Table 12: Effect on Urge Volume in all three groups

Variable	Group	Mean value		Paired t Test				Remark
		BT	AT	Difference	SDM (±)	t	P	
Urge volume	A	173.89	152.78	21.111	± 24.227	3.697	0.002	HS
	B	168.82	153.53	15.294	± 14.194	4.443	0.000	S
	C	170.00	161.25	8.750	± 14.083	2.485	0.025	NS

DISCUSSION

Mode of action of *Yashtimadhu Ghrita*

Yashtimadhu has *Madhura Rasa, Sheeta Virya, Madhura Vipaka* and is *Vata-Pitta Shamaka* property.[12] *Yashtimadhu* also has *Vrana Shodhana* and *Vrana Ropana* properties that helped for the healing of anal fissure. Go *Ghrita* contains soothing qualities and forms a thin layer over them, allowing the wound to epithelize early. *Yashtimadhu* has proven healing, anti-ulcerogenic, anti-inflammatory and skin regeneration activity.[13] Sodium glycyrrhizate possessed anti-ulcer activity and stimulation of regeneration of skin.

Triphala churna

Triphala is the cornerstone of gastrointestinal care in Ayurvedic medicine. *Triphala* is considered as a *Tri-doshic Rasayan* having balancing and rejuvenating effect. *Triphala* have antioxidant, anti-inflammatory, immunomodulating, appetite stimulation, analgesic, antibacterial, antimutagenic, wound healing, hepatoprotective effects. [14]

Rasnadi Guggulu

Rasnadi Guggulu provides symptomatic relief from pain, inflammation through its anti-inflammatory, analgesic properties.

Mode of action of *Jatyadi Ghrita* [15-19]

Most of the ingredients used in *Jatyadi ghrita* are *Shothahara, Vedanasthapana* and *Ropaka*. The ingredients like *Neem, Haridra, Daruharidra,* have antimicrobial activity. Ingredients like *Manjistha, Sariva*, and *Karanja* have the ability to cleanse wounds (*Vrunashodhana*). *Katuka* enhances the migration of fibroblasts, dermal myofibroblasts, and endothelial cells into the wound bed as well as neo-vascularization and re-epithelialization. There is *Vrunaropana* (wound healing) activities in *Jati* and *Patola*. *Tuttha*, or copper

sulphate, causes the wound to express vascular endothelial growth factor (VEGF).

CONCLUSION

In nut shell it can be concluded that ingredients of Ayurvedic formulations have mainly *Madhur Rasa, Shita Virya, Snighdha Guna, Madhur Vipaka* and *Vata Pitta Shamak Doshakarma* and has the properties of *Daahaghna*. In *Parikartika*, there is *Sthana Sansharaya* of *Vata-Pita Doshas*. These formulations also have *Vrana Ropana* (wound healing) and *Vrana Shodhana* properties. However, in modern science, *Parikartika* seems to be fissure-in-ano. The disease having mucocutaneous junction in lower anal canal breakdown and internal sphincter located just beneath the mucocutaneous part, latter on become ulcerated and undergo into spasm, by virtue of this properties of *Basti* normalize the vitiated *Vata-Pitta doshas* and locally it is helpful in healing of ulcer due to its easy and rapid penetration. *Ghrita* has soothing action and *Snigdha Guna* which makes lubricant layer, may act as a barrier over the wound. It helps in relieving the sphincter and provided easy evacuation of faeces and thus promotes healing of fissure. No adverse effect of any drugs or untoward effects of Ayurvedic modalities were noticed during or after this procedure. Finally, study concluded that they can be used for the treatment of *Parikartika* (fissure-in-ano).

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