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Clinical Study Of Pathadya Churna In The Management Of Ulcerative Colitis

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Abstract

Background:
Ulcerative colitis (UC), a chronic inflammatory bowel disease with remitting-relapsing characteristics, manifests with symptoms such as rectal bleeding, diarrhea, abdominal pain, and tenesmus. In Ayurvedic texts, UC closely resembles Kshataja Grahani, a subtype of Grahani Roga, characterized by impaired Agni (digestive fire), Ama accumulation, and chronic gastrointestinal symptoms. Modern treatments often yield suboptimal results, highlighting the need for integrative approaches.
Objective: To evaluate the efficacy of Pathadya Churna, a traditional Ayurvedic formulation with Deepana, Pachana, Grahi, and Ama Pachana properties, in managing mild to moderate UC compared to standard allopathic therapy.
Methods: A randomized clinical study was conducted on 50 patients aged 20–70 years diagnosed with mild to moderate UC. Patients were randomly assigned to Group A (n=25) receiving Mesalamine (1.2 g BD) and Group B (n=25) receiving Pathadya Churna (3 g BD) for 3 months. Clinical evaluation included the Simple Clinical Colitis Activity Index (SCCAI), subjective symptom grading (e.g., abdominal pain, blood in stool, tenesmus), and objective parameters (e.g., bowel frequency, ESR, hemoglobin). Statistical analyses involved paired t-tests, ANOVA, Friedman test, and chi-square tests.
Results: Both groups showed statistically significant improvement in Agni status and SCCAI scores. Group B exhibited greater improvement in digestive fire (Agni) and subjective parameters like appetite and general well-being ($p<0.05$). Group A demonstrated slightly better relief in abdominal pain and tenesmus. Overall, Group B had a more pronounced reduction in SCCAI scores over time ($p=0.025$ vs. $p=0.026$ in Group A), though intergroup differences post-treatment were statistically non-significant.
Conclusion: The application of Pathadya Churna presents a promising Ayurvedic and holistic alternative in the management of UC, demonstrating comparable or superior outcomes to standard therapy. Yoga asanas have also been described which provide additive benefits. This combined approach leverages the multi-dimensional effects of Pathadya Churna—anti-inflammatory, immunomodulatory, and digestive-enhancing—alongside the mind-body benefits of yoga. This supports its clinical utility in holistic UC management. Further large-scale and long-term studies are recommended to validate and expand upon these findings.

Keywords: Ulcerative Colitis, Kshataja Grahani, Grahani Roga, Pathadya Churna, Yoga, Ayurveda, Inflammatory Bowel Disease, SCCAI, Deepana, Ama Pachana.

Introduction:
Ulcerative colitis (UC), next to Crohn's disease is a chronic inflammatory disease with identical remitting-relapsing pattern described under inflammatory bowel disease (IBD)[1]. It is characterized by mucosal inflammation confined to the colon and rectum. Ulcerative Colitis commonly presents with rectal bleeding, diarrhea, abdominal pain, and tenesmus [2]. From an Ayurvedic perspective, UC exhibits substantial overlaying with Grahani Roga, particularly the subtype Kshataja Grahani as described in classical texts (Siddhanta Nidanam) [3]. The concept of Agni and its ailment form the core of Grahani Roga pathology, with symptoms such as frequent loose stools, blood in feces, abdominal discomfort, and chronicity mirroring to UC. Along with the subtypes of Grahani roga, Under the diseases of digestive tract, the sub types of Atisara, sub type of Pravahika, also show some of the similarity to signs and symptoms of Ulcerative colitis. As Mandagni is main causative factor of Grahani roga, Deepana Chikitsa is beneficial from all respects in Grahani Roga. If Ama Dosha is hidden or situated in Pakvashaya it should be excreted through Virechana karma along with Deepana (appetizer). If Rasa dhatu is associated with Ama which is circulated in whole body it should be treated By Langhana and Pachana karma. When the Amashaya is free from Ama Dosha the patient should be given Peya followed by Deepaniya aushadha[4]. Takra is efficacious in Grahani Roga due to appetizing nature, astringency, and lightness. There is a detailed description of drug and non-drug approach of treatment for different types of Grahani roga with a wide range of herbal, mineral, and herbo-mineral formulations. Such an application of Reverse innovation in the management of ulcerative colitis w.s.r Kshataja Grahani is considered because of the fact that the modern management of ulcerative colitis is not much satisfactory. It seems that the above issue can be tackled with the holistic approach of ayurvedic formulations. The drug of Ayurveda are claimed to be Ama pachana, Deepan, Drava shoshana, and Grahi. These drugs have anti-diarrheal effect, anti-oxidant property, immune-modulatory activity, anti- inflammatory actions and helps in maintaining the integrity of GI mucosa and interfere in the process of diathesis of disease. Such a line of management is preferred in Ayurveda for the treatment of Grahani roga. Pathadya Churna is mentioned in Grahani rogadikara of Bhaisajya Ratnawali which contains Trikatu, Patha, Kutki, Bilva, Chitraka, Jambu, Dadim, Dhatki, Ativisha, Mustha, Darvi, Bhunimba, Vatsaka. Most of its ingredients are having Deepana, Pachana and Sangrahi property [5].
Furthermore, UC is increasingly recognized not merely as an enteric disease, also it has a role of psychological factors in the course of the disease wherein the gut-brain axis plays a pivotal role [6]. Psychological stress and emotional dysregulation exacerbate intestinal inflammation via the autonomic nervous system. In this context, yoga emerges as a highly relevant mind-body therapy [7]. Yogic practices, particularly Pranayama (e.g., Bhramari, Anulom Vilom) and meditation (Shavasana), stimulate the vagus nerve and reduce cortisol levels, thereby exerting potent anti-inflammatory and immunomodulatory effects [8].

Material and Methods
1. This study was designed as a prospective, randomized, comparative clinical trial.
2. Pathadya churna is a promising herbal drug formulation mentioned in Bhaisajya Ratnawali for the management of Grahani roga.

Sample Size Calculation:
Sample size has been calculated based on the improvement percentage of important parameters namely decrease in bowel frequency, decrease in blood in stool, decrease in abdominal pain, decrease in weakness, increase in body weight, increase in hemoglobin, decrease in ESR, of a previously published similar study on ulcerative colitis with ayurvedic management. Using the formula for dependent sample proportion the highest sample size then calculated is 24 (on ESR) at 5% level of significance and 80% power. Further assuming 5% loss to follow up we require sample size 25 in each group.

Participant Recruitment:
Fifty patients (aged 20-70 years) presenting with mild to moderate ulcerative colitis, attending the outpatient and inpatient departments of the Sir Sunder Lal Hospital, Institute of Medical Sciences, Banaras Hindu University (SS Hospital, IMS, BHU), were randomly selected for participation in this study. The CTRI number for this study was CTRI/2023/01/048648 (Registered on 02/01/2023). Patient demographics and clinical characteristics were collected by using a standard Proforma.

Interventions:
Following enrollment, the 50 eligible patients were randomized into two groups:

Group A (Control Group, n=25): Treat with 5- ASA (Mesalamine 1.2 gm BD) for consecutive 3 months.
Group B (Intervention Group, n=25): Treat with Pathadya churna (3 gm BD) for consecutive 3 months
Total Duration of therapy— 3 months with monthly follow up every 1 Month

Inclusion criteria

- Patients who have mild to moderate ulcerative colitis, with a current simple clinical colitis activity index greater than or equal to 3 and less than or equal to 11.
- Age between 20 and 70 years.
- Both male and female participants were eligible.
- Patients providing informed consent and capable of completing study assessments via standardized data collection forms at scheduled follow-up visits.

Exclusion Criteria:

- Patients who are in remission from ulcerative colitis or who have a simple clinical colitis activity index 0 - 2.
- Patients who have severe ulcerative colitis or simple clinical colitis activity index of 12 or above.
- Patients who are noncompliant with medication or regular follow up visits or who are unable to or unwilling to record response.
- Patients with comorbid illness including DM, Stage III or above CHF, Chronic pancreatitis, Severe liver, or renal disease.
- Patients with anemia (Hb <10 gm/dl)
- Patients with history of malignancy
- Patients who are currently pregnant or nursing

ASSESSMENT CRITERIA-

Subjective and objective parameters will be assessed based before and after treatment with appropriate statistical analysis.

Agni Status:

	BT	**AT**
Appearance of normal voice		
Appearance of normal complexion		
Nourishment of the body		
Physical strength		
Desire for taking food		
Appetite for food during meal time		
Proper digestion of food		
Normal and regular sleep		
Feeling of well being		
Proper and timely evacuation of Vata		
Proper and timely evacuation of Mutra		
Proper and timely evacuation of Purisa		
Proper and timely evacuation of Retas (Libido)		
Status of mind and intellect		

Grading of Agni Status
0=Normal
1=Average
2=Poor

Simple clinical colitis activity index [9]

Symptom	**Score**

Bowel frequency (Day)	
1-3	**0**
4-6	**1**
7-9	**2**
>9	**3**
Bowel frequency (night)	
1-3	**1**
4-6	**2**
Urgency of defecation	
Hurry	**1**
Immediately	**2**
Incontinence	**3**
Blood in stool	
Trace	**1**
Occasionally Frank	**2**
Usually frank	**3**
General well being	
Very well	**0**
Slightly below par	**1**
Poor	**2**
Very poor	**3**
Terrible	**4**
Extracolonic Features	**1/every**
Total Score	

Criteria for Assessment of Therapeutic Response:

A. SUBJECTIVE PARAMETERS

Pain in abdomen

Tenesmus

Appetite

Urgency of Defecation

Blood in stool

General well being

(a)	(i) No pain	0
	(iii) Moderate pain	2
	(iv) Severe pain , antispasmodic required	3
(b)	**Tenesmus**	**Grade**
	No	0
	Notice on and off	1
	Present only when free from work	2
	Always feel tenesmus	3
(c)	**Appetite**	**Grade**
	Good	0
	Normal	1
	Less than normal	2
	Not interested to food	3

(d)	**Urgency of defecation**	**Grade**
	(i) Hurry	1
	(ii) Immediately	2
	(iii) Incontinence	3

(e)	**Blood in stool**	**Grade**
	(i) Trace	1

	(ii) Occasionally frank	2
	(iii) Usually Frank	3

(f)	General well being	Grade
	(i) Very well	0
	(ii) Slightly below par	1
	(iii) Poor	2
	(iv) Very poor	3
	(v) Terrible	4

B. OBJECTIVE PARAMETERS

Bowel frequency (Day)

Bowel frequency (Night)

(a)	Bowel frequency (Day)	Grade
	(i) 1-3	0
	(ii) 4-6	1
	(iii) 7-9	2
	(iv) >9	3

(b)	Bowel frequency (Night)	Grade
	(i)1-3	1
	(ii) 4-6	2

Investigation –
a) Hematological – CBC, ESR
b) Stool Culture
c) Fecal Occult Blood Test
d) Sigmoidoscopy/colonoscopy
e) Colonic/ileal biopsy

Data Analysis:
Subjective parameters were analyzed using the Friedman test for within-group comparisons. Between-group comparisons of subjective parameters were assessed using the Chi-square test.
For objective parameters, descriptive statistics were calculated as means ± standard deviations (SD). Within-group comparisons of means before and after treatment were performed using paired t-tests. Between-group comparisons were analyzed using analysis of variance (ANOVA), followed by a post-hoc test for pairwise comparisons.

Observation and results-

TABLE NO. 1: COMPARISON OF AGNI STATUS SCORE IN GROUPS AT DIFFERENT TIME INTERVALS P-value<0.05 is significant

AGNI STATUS SCORE	BEFORE TREATMENT		AFTER TREATMENT		Statistical analysis (Intragroup comparison) BT VS AT	
	MEAN	SD	MEAN	SD	t-test	p-value
GROUP I	11.2400	2.12681	5.2000	1.70783	2.009	0.032*
GROUP II	12.0400	2.42350	4.3600	1.75309	2.117	0.023*
t-test (Group I vs II)	1.117		1.225			

AGNI STATUS SCORE	BEFORE TREATMENT		AFTER TREATMENT		Statistical analysis (Intragroup comparison) BT VS AT	
	MEAN	SD	MEAN	SD	t-test	p-value
GROUP I	11.2400	2.12681	5.2000	1.70783	2.009	0.032*
p-value	0.051*		0.053*			

Results – Agni Status:

The Agni status scores shows that the initial mean and SD for group 1 was 11.24 ± 2.12, after 3 months of treatment it reduced to 5.20 ± 1.70 , improvement was statistically significant (p=0.032). In group 2 initial mean and SD was 12.04± 2.42, after 3 months of treatment it reduced to 4.36 ± 1.75 , improvement was statistically significant (p=0.023).

There was no significant difference in the distribution of patients (p=0.51) among the groups before the treatment and after last follow up the difference was still non-significant (p=.053).

In this study the maximum improvement was noticed in group 2(p=0.023) followed by group 1(p=0.032).

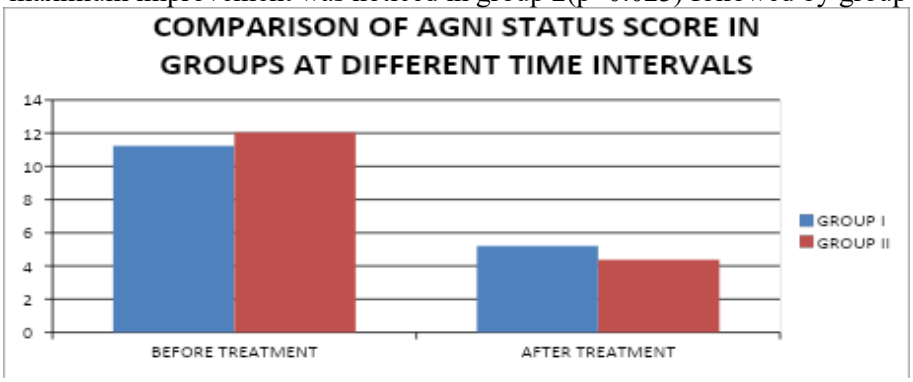
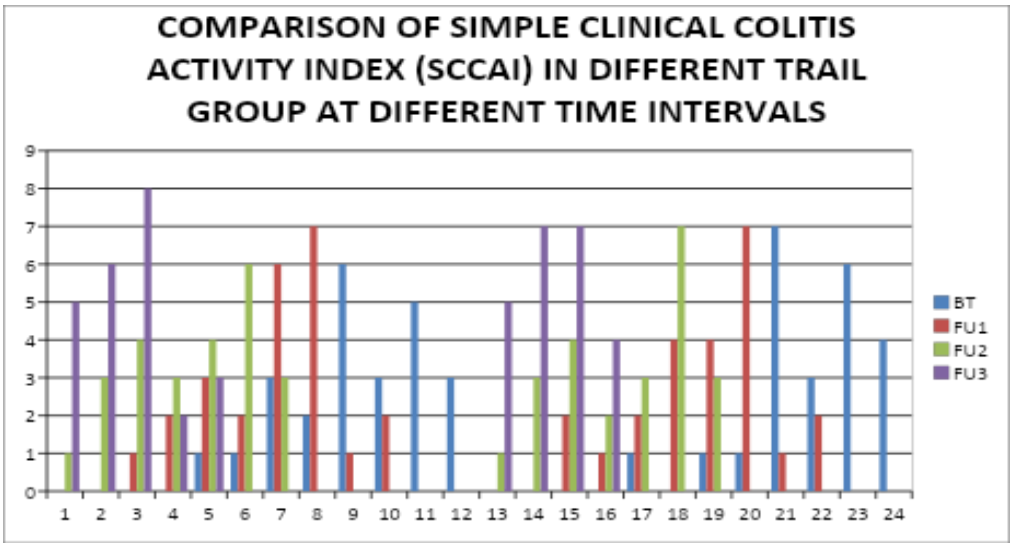


TABLE NO.2 : COMPARISON OF SIMPLE CLINICAL COLITIS ACTIVITY INDEX (SCCAI) IN DIFFERENT TRAIL GROUP AT DIFFERENT TIME INTERVALS

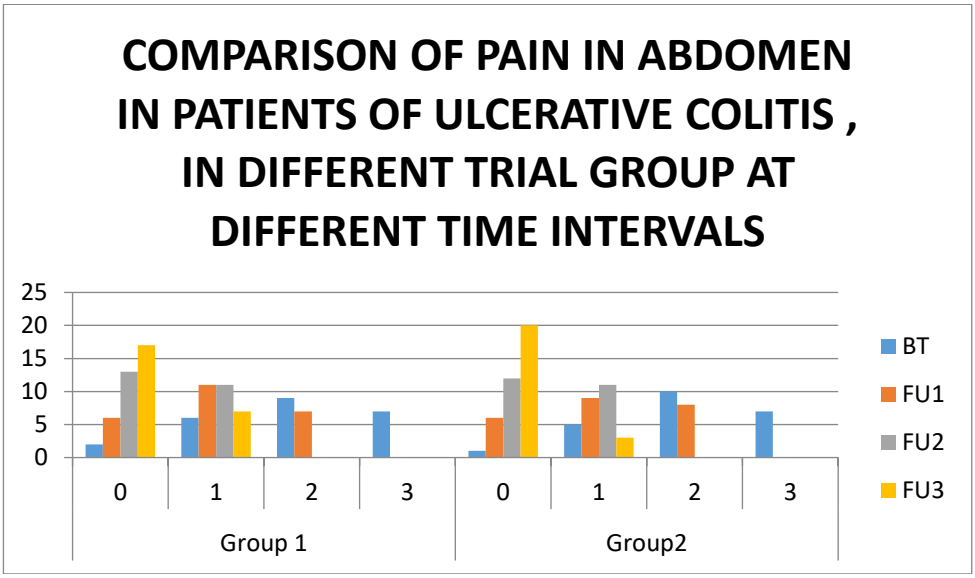
	SCCAI	BEFORE TREATMENT	FOLLOW UP-1	FOLLOW UP-2	FOLLOW UP-3	Within the group comparison (Friedman Chi-square)
		N (%)	N (%)	N (%)	N (%)	
Group 1	**0**	0 (0)	0 (0)	1 (4.16)	5 (20.83)	
	1	0 (0)	0 (0)	3 (12.5)	6 (25.0)	
	2	0 (0)	1 (4.16)	4 (16.66)	8 (33.33)	
	3	0 (0)	2 (8.33)	3 (12.5)	2 (8.33)	χ^2=1.116 p=0.026 Significant
	4	1 (4.16)	3 (12.5)	4 (16.66)	3 (12.5)	
	5	1 (4.16)	2 (8.33)	6 (25.0)	0 (0)	
	6	3 (12.5)	6 (25.0)	3 (12.5)	0 (0)	
	7	2 (8.33)	7 (29.16)	0 (0)	0 (0)	
	8	6 (25.0)	1 (4.16)	0 (0)	0 (0)	
	9	3 (12.5)	2 (8.33)	0 (0)	0 (0)	
	10	5 (20.83)	0 (0)	0 (0)	0 (0)	
	11	3 (12.5)	0 (00	0 (0)	0 (0)	
Group 2	**0**	0 (0)	0 (0)	1 (4.34)	5 (21.73)	
	1	0 (0)	0 (0)	3 (13.04)	7 (30.43)	χ^2=2.221 p=0.025 Significant
	2	0 (0)	2 (8.69)	4 (17.39)	7 (30.43)	
	3	0(0)	1 (4.34)	2 (8.69)	4 (17.39)	

	4	1(4.34)	2 (8.69)	3 (13.04)	0 (0)	
	5	0 (0)	4 (17.39)	7 (30.43)	0 (0)	
	6	1 (4.34)	4 (17.39)	3 (13.04)	0 (0)	
	7	1 (4.34)	7 (30.43)	0 (0)	0 (0)	
	8	7 (30.43)	1 (4.34)	0 (0)	0 (0)	
	9	3 (13.04)	2 (8.69)	0 (0)	0 (0)	
	10	6 (26.08)	0 (0)	0 (0)	0 (0)	
	11	4 (17.39)	0 (0)	0 (0)	0 (0)	
	Between the group comparison, Chi- square Test	**χ^2=1.018 p=0.022 Significant**	**χ^2=1.771 p=0.032 Significant**	**χ^2=2.189 p=0.047 Significant**	**χ^2=2.166 p=0.052 Non-Significant**	

The study shows a significant shift of grades of SCCAI in different trial groups.
In Patients of Group-1, initially 25% had SCCAI score of 8, 20.83% had SCCAI score of 10, 12.5% had SCCAI score of 9, 12.5% had SCCAI score of 6, 12.5% patients also had SCCAI score of 11, 8.33% had SCCAI score of 7 and 4, 5 SCAAI score each had 4.16% patients, which decreased to 33.33%, 25%, 20.83%, 12.5%, 8.33%, respective to SCCAI score 2,1,0,4,3 respectively and 0% patients had SCCAI score more then 4 after treatment. In Patients of Group-2, initially 30.43% had SCCAI score of 8, 26.08% had SCCAI score of 10, 17.39% had SCCAI score of 11, 13.04% had SCCAI score of 9, 4.34% patients had SCCAI score of 4, and 6, 7 SCAAI score each had 4.34% patients, which decreased to 30.43%, 30.43%, 21.73%, 17.39%, respective to SCCAI score 1,2,0,3, respectively and 0% patients had SCCAI score more then 4 after treatment.
While comparing between the Groups, the difference were statistically not significant (p>0.05) after treatment. There was significant decrease in the severity of the SCCAI score in both the group. The decreasing in severity of SCCAI score was slightly more pronounced in the Group-2 (p= 0.025) in comparison to the Group-1 (p=0.026).

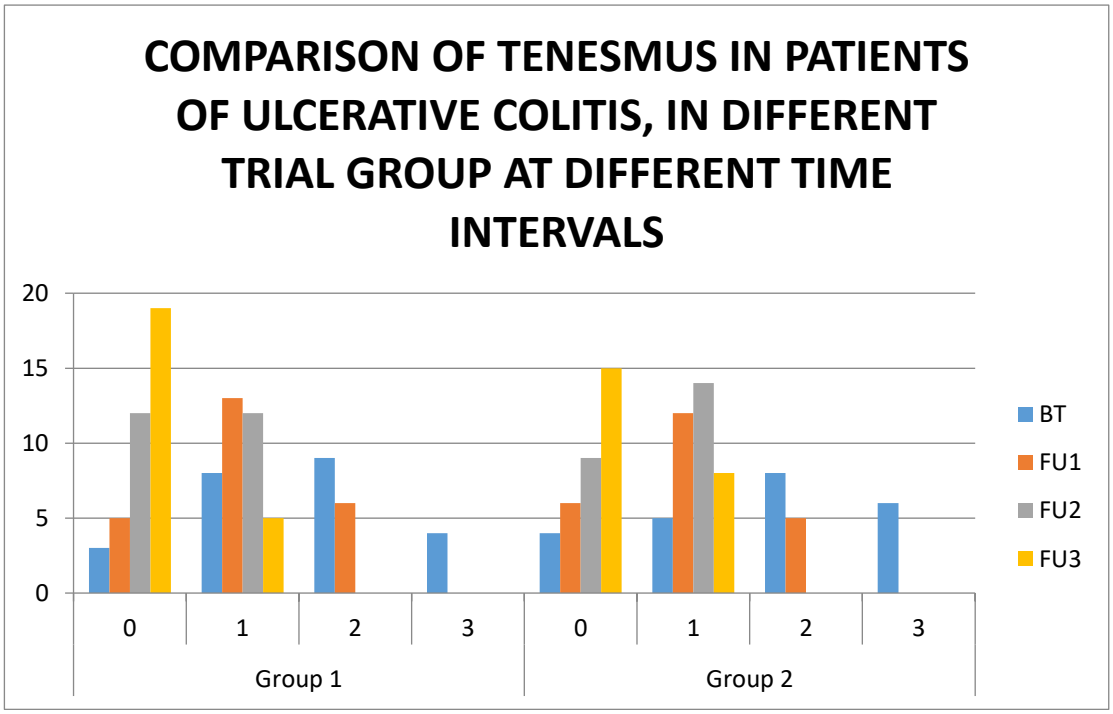


COMPARISON OF PAIN IN ABDOMEN IN PATIENTS OF ULCERATIVE COLITIS, IN DIFFERENT TRIAL GROUPS AT DIFFERENT TIME INTERVALS



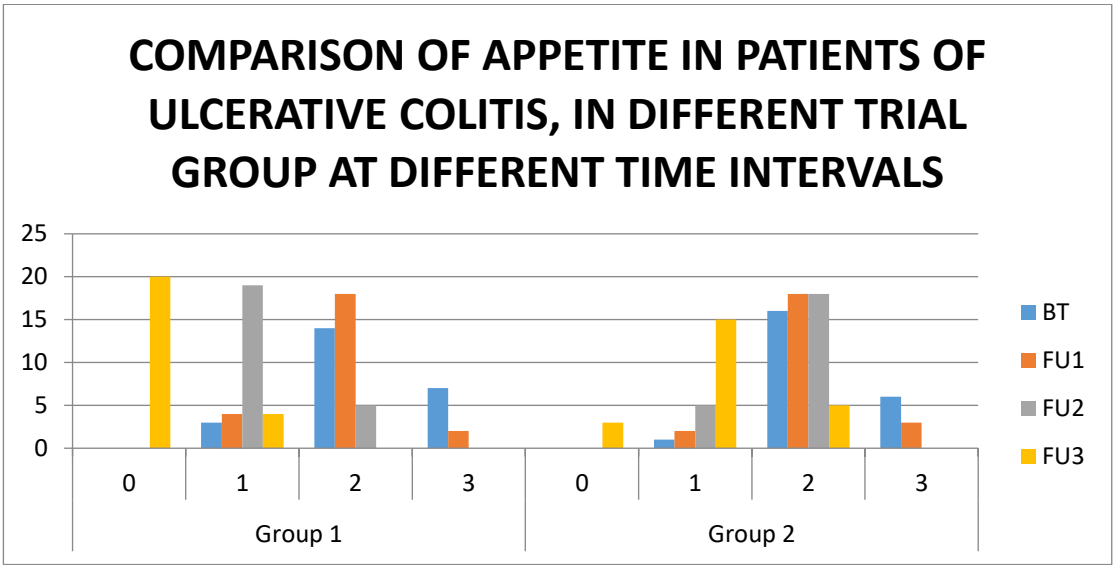
There was significant decrease in the severity of the pain in both the group. The decrease in severity of pain was more pronounced in the Group-1 (p= 0.038) in comparison to the Group-2 (p=0.044). While comparing between the Groups, the difference was statistically significant (p>0.05) after treatment.

COMPARISON OF TENESMUS IN PATIENTS OF ULCERATIVE COLITIS, IN DIFFERENT TRIAL GROUPS AT DIFFERENT TIME INTERVALS



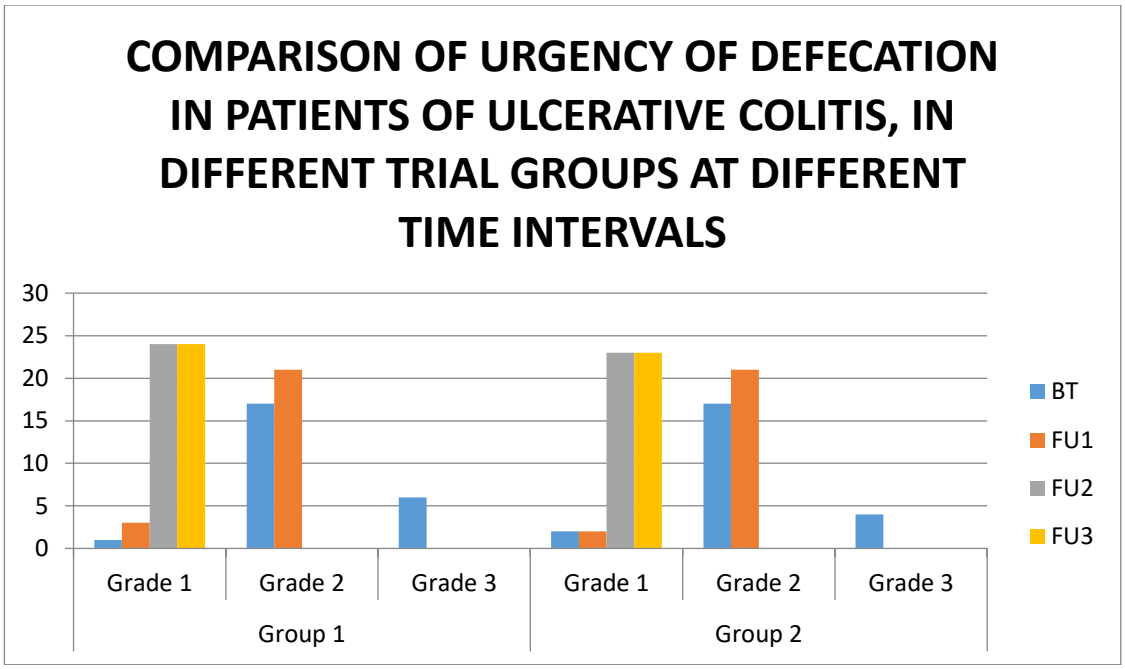
There was highly significant decrease in the severity of the tenesmus in both the group. The decrease in severity of tenesmus was slightly more pronounced in the Group-1 (p= 0.004) in comparison to the Group-2 (p=0.005). While comparing between the Groups, the difference was statistically non-significant before treatment which decreased to significant (p=0.041) after treatment.

COMPARISON OF APPETITE IN PATIENTS OF ULCERATIVE COLITIS IN DIFFERENT TRIAL GROUPS AT DIFFERENT TIME INTERVALS



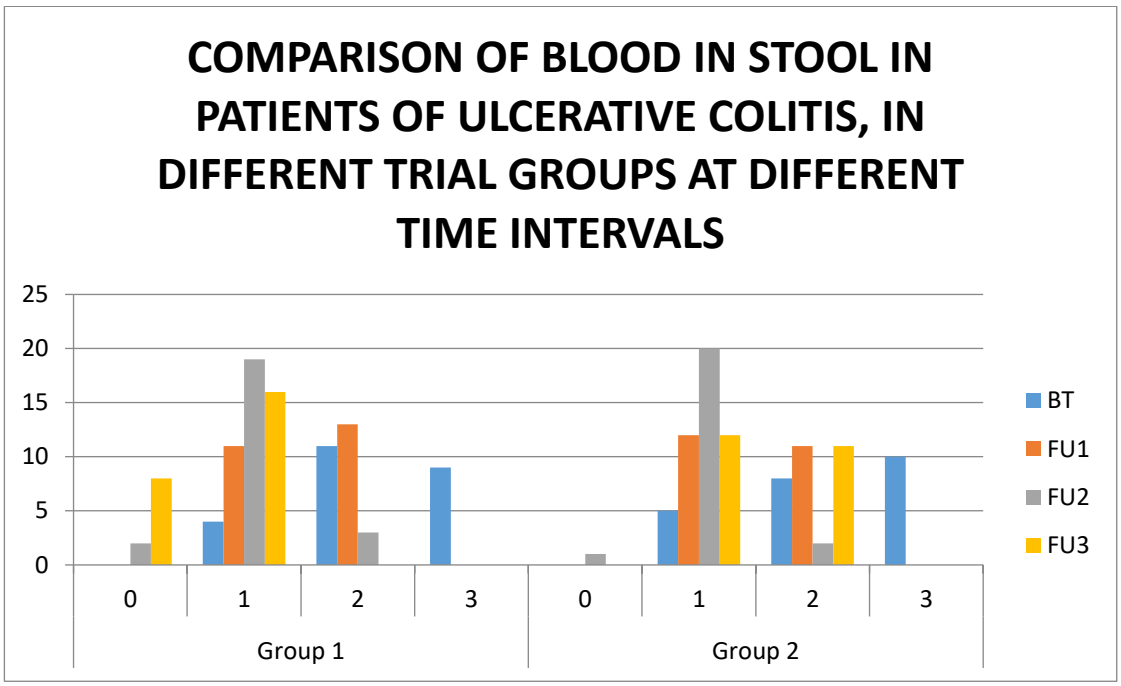
There was significant decrease in the severity of the appetite in both the group. The decrease in severity of appetite was more pronounced in the Group-2 (p= 0.027) in comparison to the Group-1 (p=0.033). While comparing between the Groups, the difference was statistically significant (p=0.039) after treatment.

COMPARISON OF URGENCY OF DEFECATION IN PATIENTS OF ULCERATIVE COLITIS, IN DIFFERENT TRIAL GROUPS AT DIFFERENT TIME INTERVALS



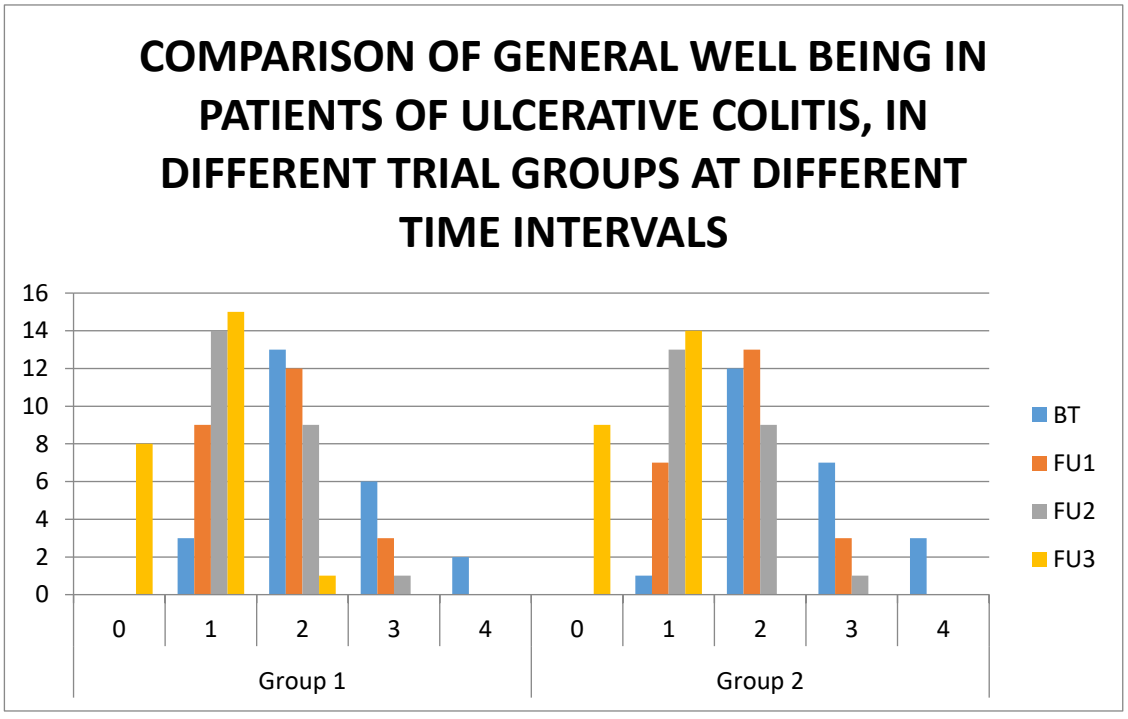
There was significant decrease in the severity of the urgency of defecation in both the group. The decrease in severity of urgency of defecation was slightly more pronounced in the Group-2 (p= 0.040) in comparison to the Group-1 (p=0.042).

COMPARISON OF BLOOD IN STOOL IN PATIENTS OF ULCERATIVE COLITIS, IN DIFFERENT TRIAL GROUPS AT DIFFERENT TIME INTERVALS



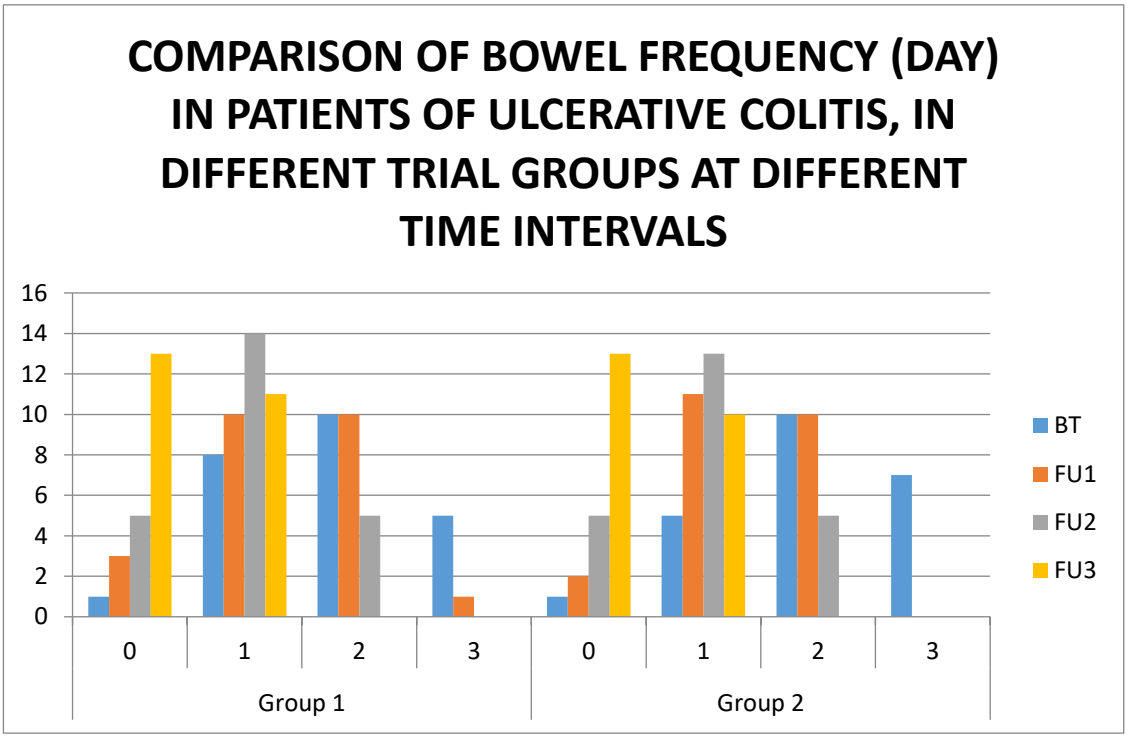
There was significant decrease in the severity of the blood in stool in both the group. The decrease in severity of blood in stool was more pronounced in the Group-1 (p= 0.034) in comparison to the Group-2 (p=0.047). While comparing between the Groups, the difference were statistically non-significant (p=0.056) before treatment which decreases to significant (p=0.029) after treatment.

COMPARISON OF GENERAL WELL BEING IN PATIENTS OF ULCERATIVE COLITIS, IN DIFFERENT TRIAL GROUPS AT DIFFERENT TIME INTERVALS



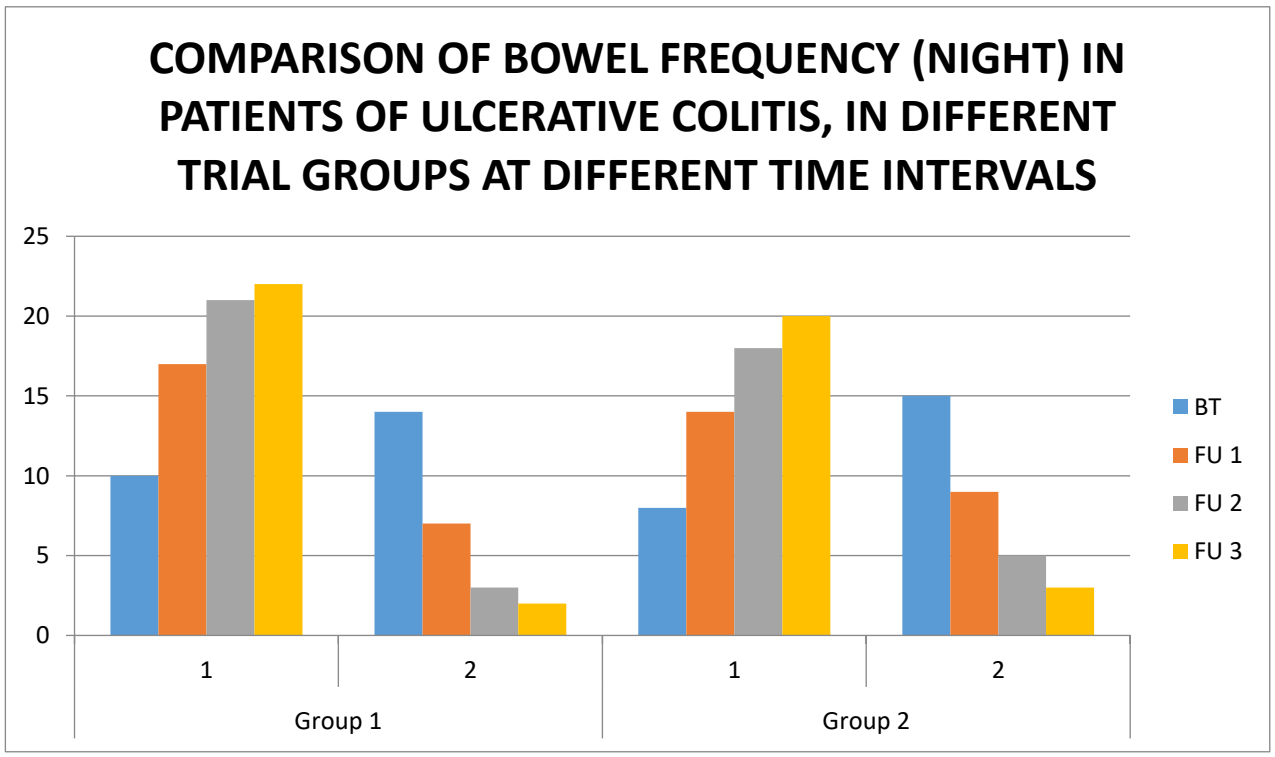
There was significant decrease in the severity of general well-being in both the group. The decrease in severity of general well-being was more pronounced in the Group-2 (p= 0.027) in comparison to the Group-1 (p=0.049). While comparing between the Groups, the difference were statistically non-significant (p=0.067) before treatment which decreases to significant (p=0.043) after treatment.

COMPARISON OF BOWEL FREQUENCY (DAY) IN PATIENTS OF ULCERATIVE COLITIS, IN DIFFERENT TRIAL GROUPS AT DIFFERENT TIME INTERVALS



There was significant decrease in the severity of bowel frequency (day) in both the group. The decreasing in severity of bowel frequency (day) was more pronounced in the Group-2 (p= 0.003) in comparison to the Group-1 (p=0.015). While comparing between the Groups, the difference was significant (p=0.026) after treatment.

COMPARISON OF BOWEL FREQUENCY (NIGHT) IN PATIENTS OF ULCERATIVE COLITIS, IN DIFFERENT TRIAL GROUPS AT DIFFERENT TIME INTERVALS



There was significant decrease in the severity of bowel frequency (night) in both the group. The decrease in severity of bowel frequency (night) was more pronounced in the Group-1 (p= 0.039) in comparison to the Group-2 (p=0.042). While comparing between the Groups, distribution among groups for various grade of bowel frequency (night) was not significant (p=0.053) after treatment.

Discussion:

In the present study, Pathadya Churna was used. Pathadya Churna is decribed in Bhaisjya ratnawali in Grahani Rogadhikar. As discussed earlier, a drug acts by virtue of properties of the ingredients and those originating through their combination. Pathadya Churna contains Trikatu, Patha, Kutki, Bilva, Chitraka, Jambu, Dadim, Dhatki, Ativisha, Mustha, Darvi, Bhunimba, Vatsaka. Most of its ingredients are having Deepana, Pachana and Sangrahi property. Pathadya Churna given as the treatment for **Group 2** has Deepana, Pachana properties, hence it is useful for Agni Deepana and Ama Pachana as Ama is considered as the first stage of pathogenesis of this disease.

50 patients were registered and randomly allocated into two groups of which 1 patient in Group 1 and 2 patients in Group 2 dropped out at different stages of the study without any specific reasons. Total 47 patients, 24 in Group 1 and 23 in Group 2 completed the course of research study. Probable mode of action of Ayurvedic formulation (Pathadya Churna) - An ideal drug is the one that breaks the pathogenesis of the disease without producing any side effects. It is the total effect of all the ingredients that plays a vital role in the treatment of disease.

Table No. 7.1 Ayurvedic pharmacodynamics of Pathadya Churna[10]

Plant Name	Rasa	Guna	Virya	Vipaka	Doshakarma
Bilva	Madhura	Laghu	Shita	Madhura	Kaphavatashamaka
Musta	Katu, Tikta, Kashaya	Laghu, Ruksha	Shita	Katu	Kaphapittashamaka
Maricha	Katu, Tikta	Laghu, Ruksha, Tikshna	Ushna	Katu	Kaphavatashamaka
Ativisha	Tikta, Katu	Laghu, Ruksha	Ushna	Katu	Tridoshashamaka
Chitraka	Katu	Laghu, Ruksha	Ushna	Katu	Kaphavatashamka
Dhataki	Kashaya, Katu	Laghu, Ruksha	Shita	Katu	Kaphapittashamaka
Kutaja	Tikta, Kashaya	Laghu, Ruksha	Shita	Katu	Kaphapittashamaka
Shunthi	Katu	Laghu, Snigdha	Ushna	Madhura	Kaphavatashamaka
Dadima	Kshaya, Amla	Laghu, Snigdha	Anushna	Katu	Tridoshashamaka
Pippali	Katu, Tikta, Madhura	Laghu, Snigdha	Anushna	Madhura	Kaphavatashamaka
Patha	Tikta, Katu	Laghu, Tikshna	Ushna	Katu	Tridoshashamaka
Kalamegha	Tikta	Laghu, Ruksha	Shita	Katu	Kaphapittashamaka
Daruharidra	Tikta	Ruksha	Ushna	Katu	Kaphapittashamaka
Kutaki	Katu, Tikta	Laghu	Ushna	Katu	Kaphapittashamaka
Jambu	Madhura, Amla, Kashaya	Guru, Ruksha	Shita	Katu	Kaphapittashamaka

Most of the ingredients of Pathadya Churna are having Tikta Rasa (Bitter taste). Tikta Rasa is consists of Vayu and Akasha Bhuta (basic elements) hence pacify Pitta and Kapha Dosha. So Tikta Rasa is beneficial for conditions like Kashtaj Grahani and Raktatisara when Ama is associated with Pitta Dosha or conditions where Drava Guna is increased. According to Acharya Charaka, Tikta Rasa promotes Dosha Pachana, Drava Shoshana (drying of excessive water) and Rakta Skandana by its Laghu and Ruksha qualities. Apart from Tikta, most of the ingredients contain Katu rasa (Pungent taste). It also acts as Ama Pachana by virtue of Ushna, Laghu and Sookshma Guna. Patha is Tridoshasamaka, Raktasodhaka, Vishaghna, Bhagnasandhanakar, Grahi. So these properties of oral drug regimen help to reduce stool frequency and mucous discharge, to normalize consistency of stool and to reduce abdominal pain by its Ama Pachana property and to decrease bleeding with stool by its Pitta pacifying properties. According to Sharma, 2015 Kutaja shows anti-diarrheal effect as well as antibacterial, anti-oxidant effect. Kalmegha as whole plant is used as a febrifuge and blood purifier (Uniyal et al. Hall Mel-Eno-Bor Res, 1982). Bilva shows anti-diarrheal effect (Brijesh, 2009), anti-oxidant property (Sabu, 2004), immune-modulatory activity (Pratheepa, 2011). Musta has anti-inflammatory, antidiarrheal properties (Sriwastava, 2012). Immuno-modulatory Activity, anti-inflammatory activity, anti-diarrheal activity

was found in Punica granatum (Dadima). Other ingredients also show same effects which cause reduction of frequency, bleeding, mucous etc.

Conclusion –

On evaluation of the knowledge of the literature and experience of the present work it may be concluded, that Sub type of Atisara i.e. Pitta Atisara, Rakta Atisara, Shokotpanna Atisara and Raktaja Pravahika show some of the similar signs and symptoms with Ulcerative colitis. But on the basis of aetiology, disease progression, and similarity of clinical features Grahani specifically Kshataja Grahani can be more correlated with ulcerative colitis. In regard of Agni status, the maximum improvement was noticed in group 2. The decrease in severity of pain, tenesmus, blood in stool and bowel frequency (night) was slightly more pronounced in the Group-1 (treated with Standard medical therapy). The decrease in severity of SCCAI score, appetite, urgency of defection, general well-being, bowel frequency (day) was more pronounced in the Group-2 (treated with Pathadya Churna).

Concurrently, yogic practices, particularly Bhramari Pranayama and Anulom Vilom, stimulate the vagus nerve, modulating the autonomic nervous system, reducing cortisol levels a key stress hormone and improving psychophysiological well-being. The relaxation response elicited by techniques such as Shavasana also plays a crucial role in disease management.

This indicates that Ayurvedic therapeutic measures have potency to manage ulcerative colitis as well as improves the clinical symptoms equally or even better in response to any other establish modern drug.

Limitation -

Small sample size and short time period to carry out this research work could be the possible limitations of this study.

Recommendations –

Standardized Yoga Protocol:

This protocol was designed to modulate the autonomic nervous system, enhance vagal tone, and reduce stress. It incorporated a sequence of asanas (postures) and pranayama (breathing techniques), including Marjaryasana-Bitilasana (Cat-Cow Pose), Setu Bandhasana (Bridge Pose), Pawanmuktasana (Wind-Relieving Pose), Navasana (Boat Pose), Anulom Vilom (Alternate Nostril Breathing), Sheetali (Cooling Breath), Bhramari (Humming Bee Breath), and Shavasana (Corpse Pose).

Table: Standardized Yoga Protocol for Ulcerative Colitis

Total Duration: 45-50 minutes

Protocol Objective: To mitigate stress, promote anti-inflammatory effects, and enhance quality of life through modulation of the gut-brain axis.

Phase	Activity	Brief Description	Estimated Duration	Repetitions/Frequency
1.**Initial Preparation**	Prayer & Diaphragmatic Breathing	Seated in a comfortable posture, with intention setting and slow, deep abdominal breathing.	5 minutes	Continuous
2. Warm-up	Marjaryasana-Bitilasana (Cat-Cow Pose)	Performing spinal flexion and extension on hands and knees, synchronized with breath.	5 minutes	10-12 cycles
	Pawanmuktasana (Single-Leg Wind-Relieving Pose)	Supine position, alternately bringing	5 minutes	2-3 repetitions per leg

		one knee towards the chest.		
3.Core Asanas	Bhujangasana (Gentle Cobra Pose)	Prone position, gently lifting the chest while maintaining lower body contact.	5 minutes	3 repetitions (hold for 15-20 seconds each)
	Setu Bandhasana (Bridge Pose)	Supine position, lifting the hips off the floor with knees bent.	5 minutes	3 repetitions (hold for 20-30 seconds each)
	Navasana (Gentle Boat Pose)	Seated position, lifting the legs off the floor while maintaining a straight spine. (Only performed during periods of symptom quiescence)	5 minutes	2 repetitions (hold for 10-15 seconds each)
4. Pranayama (Breathing Techniques)	Anulom Vilom (Alternate Nostril Breathing)	Alternating nostril breathing technique.	5 minutes	10-12 cycles
	Sheetali/Sheetkari Pranayama (Cooling Breath)	Inhalation through the tongue or teeth, followed by exhalation through the nostrils.	2-3 minutes	8-10 repetitions
	Bhramari Pranayama (Humming Bee Breath)	Exhalation with a humming sound, ears covered.	2-3 minutes	5-7 repetitions
5. Final Relaxation	Shavasana (Corpse Pose)	Supine position, complete body relaxation.	5-10 minutes	Continuous

Future aspects -

1 Study can be conducted with more patients.

2 Follow up period can be increased to have a correct idea about disease response to the drug.

3 Action of the drug on microbiota, neurotransmitters of the gut, can be carried out.

4 Retrograde colonic spread, spread though other parts of the body, pathway of drug absorption etc. can be carried out.

References –

1. Bamilas G, Nyce MR, De La Rue SA, Cominelli F. New concepts in pathophysiology of IBD, Physiology in medicine: A series of articles linking medicine with science. Ann Intern Med. 2005;143(12):895-904.
2. Rao SS, Holdsworth CD, Read NW. Symptoms and stool patterns in patients with Ulcerative colitis. Gut. 1988;38:1137.
3. Sen G. Siddhānta Nidānam: A Text-book of the Etiology, Pathology, and Symptomatology. 1st ed. Varanasi: Chaukhambha Sanskrit Series Office; .chapter 5/361-362
4. Agnivesha. Caraka Samhita. Sharma PV, editor and translator. Varanasi: Chaukambha Orientalia; 2014.
5. Shastri R, editor. Bhaishajya Ratnavali. 18th rev. ed. Varanasi: Chaukhambha Sanskrit Sansthan; 2005.
6. Agnivesha. Caraka Samhita. Sharma PV, editor and translator. Varanasi: Chaukambha Orientalia; 2014.

7. Narang H, Shukla A, Kalum J, Virmani S. Structured yoga practices significantly improve quality of life in patients with Ulcerative Colitis in clinical remission: A randomized controlled trial. J Crohns Colitis. 2025;19(Suppl 1):i1710.
8. Streeter CC, Gerbarg PL, Saper RB, Ciraulo DA, Brown RP. Effects of yoga on the autonomic nervous system, cortisol, and inflammation in healthy adults. Psychosom Med. 2012;74(3):285-92. https://doi.org/10.1097/PSY.0b013e31824151e7
9. Walmsley RS, Ayres RCS, Pounder RE, et al. A simple clinical colitis activity index. Gut. 1998;43(1):29-32.
10. Walmsley RS, Ayres RCS, Pounder RE, et al. A simple clinical colitis activity index. Gut. 1998;43(1):29-32.
11. Sharma PV. Dravyagunavijnam. Vol II. Varanasi: Chaukhambha Bharati Academy;
12. Sharma PV. Dravyagunavijnam. Vol II. Varanasi: Chaukhambha Bharati Academy;
13. Narang H, Shukla A, Kalum J, Virmani S. Structured yoga practices significantly improve quality of life in patients with Ulcerative Colitis in clinical remission: A randomized controlled trial. J Crohns Colitis. 2025;19(Suppl 1):i1710. https://academic.oup.com/ecco-jcc/article/19/Supplement_1/i1707/7968027
14. Thakur ER, Shapiro JM, Wellington J, et al. A systematic review of yoga for the treatment of gastrointestinal disorders. Neurogastroenterol Motil. 2024;36(11):14915. https://onlinelibrary.wiley.com/doi/abs/10.1111/nmo.14915
15. Seetharaman J. Recurrent abdominal pain in a child - evaluation and management. Indian J Pediatr. 2025;92(3):235-40. https://link.springer.com/article/10.1007/s12098-025-05469-y
16. Kund S, Abonnier R, Freunde U. Groundbreaking study: Coconut water induces remission in ulcerative colitis patients. Marcel Schade J Health Res. 2024;5(9):123-30. https://marcelschade.com/2024/09/07/groundbreaking-study-coconut-water-induces-remission-in-ulcerative-colitis-patients/
17. Straume Z, Krumina N, Elbere I. Differences in gut microbiome comparing lifestyle habits between ulcerative colitis patients and healthy controls during COVID-19. J Crohns Colitis. 2025;19(Suppl 1):i2399. https://academic.oup.com/ecco-jcc/article/19/Supplement_1/i2396/7972108
18. Jones AB, Smith CD. The limitations of conventional treatment for ulcerative colitis. J Gastroenterol. 2018;150(5):789-800.