

Clinical Research

Effects of Ayurvedic treatment on forty-three patients of ulcerative colitis

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Abstract

Ulcerative colitis is a chronic idiopathic inflammatory bowel disease with a relapsing nature. It is a very challenging disease affecting a patient during the most active period of his life i.e. 20 to 40 years of age. The main features are ano-rectal bleeding with increased frequency of bowel evacuation, general debility and with abnormal structural pathology in the descending colon, particularly sigmoid colon. In modern medical science, there is no permanent curative and safe treatment for this disease. This study can be helpful for reducing the need of steroids and surgical processes in the patients of ulcerative colitis. A clinical study of 43 patients of ulcerative colitis has been conducted at the O.P.D. (outdoor patient department) and I.P.D. (indoor patient department) of the P D Patel Ayurveda Hospital, Nadiad. They were given *Udumbara kvatha basti* with oral Ayurveda medicaments including *Kutaj ghan vati*, *Udumbara kvatha*, and combination of *Musta*, *Nagakesara*, *Lodhra*, *Mukta panchamrut rasa* for a one-month period. Results were analyzed statistically by using the 't' test. In this study, it was observed that the symptoms and signs, daily dose of steroids and other anti-inflammatory drugs were reduced by more than 75% with a highly significant result. The hemoglobin level was also increased.

Key words: Ayurveda, ulcerative colitis, *Udumbara kvatha basti*, *Basti karma*

Introduction

Ulcerative colitis is a chronic inflammatory bowel disease. Its incidence is more during 20 to 40 years of age and 5–10 per 100,000 persons are at risk.^[1] Bleeding in stool with increased bowel frequency are the cardinal features of this disease. Weakness is more common due to loss of water and blood in stool. In conventional Western medicine some drugs like sulfasalazine may give mild relief in symptoms and signs but after some time patients need more doses of the same drug. Some patients get benefit with steroids, which again are not suitable because of their side-effects. Even after taking steroids and sulfasalazine drugs patients suffer from the disease. So the patients are always seeking some alternative therapy promising more effective and safer outcomes.

The authors found some encouraging results in the patients of ulcerative colitis with certain *Ayurvedic* treatments. The treatment significantly corrected bleeding in stool and bowel frequency which are the cardinal features of ulcerative colitis, In addition the treatments also improved the general condition of the patient. Ulcerative colitis is a disease of *Purishavaha srotas*. In Ayurveda,

Raktatisara is mentioned as an advanced stage of *Pittatisara*. *Piccha basti* also mentioned as a management of *Raktatisara* in *Charaka Samhita*.^[2] This disease can be co-related with ulcerative colitis.

Aims and Objectives

The aims and objectives of this study were as follows –

1. To prove the efficacy of Ayurvedic treatment in the management of ulcerative colitis.
2. To provide a large population suffering from ulcerative colitis, a future possibility of safer treatment; this can be helpful in reducing the need of steroids and surgical processes.

Materials and Methods

Selection of patients

Forty-three cases with a classical picture of ulcerative colitis were randomly selected irrespective of age, sex, and chronicity from the OPD and IPD of the P. D. Patel Ayurveda Hospital, attached to J. S. Ayurveda College, Nadiad, Gujarat.

Criteria for inclusion

- Signs and symptoms of ulcerative colitis
- Colonoscopic diagnosis of ulcerative colitis

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Criteria for exclusion

- Patients who had undergone surgeries
- Patients who had complications like anal fistula
- Patients with any other associated disease

Plan of study and treatments

- Proforma compiled with detailed clinical history and physical exam of the patients.

Table 1: Distribution of the patients according to age

Age group	No. of patients	Percentage
20 – 25 Years	06	13.95
26 – 30 Years	13	30.24
31 – 35 Years	14	32.55
36 – 40 Years	07	16.28
41 – 45 years	03	06.98

Table 2: Distribution of the patients according to sex

Sex group	No. of patients	Percentage
Male	28	65.12
Female	15	34.88

Table 3: Distribution of the patients according to religion

Religion group	No. of patients	Percentage
Hindu	36	83.72
Muslim	04	09.30
Christians	03	06.98

Table 4: Distribution of the patients according to chronicity

Chronicity	No. of patients	Percentage
< 1 Year	20	46.51
1– 3 Years	09	20.93
> 3– 5 Years	09	20.93
> 5 Years	05	11.63

Table 5: Effects of Ayurved therapy on signs and symptoms of ulcerative colitis

Symptoms	Mean score		%	S.D.	S.E.	t Value	P Value
	B.T.	A.T.					
Bowel frequency	3.06	0.55	81.81	0.827	0.126	19.90	< 0.001
Bleeding in stool	2.48	0.20	91.58	0.908	0.138	16.45	< 0.001
Abdominal pain	2.19	0.29	86.76	0.943	0.169	11.23	< 0.001
Weakness	2.55	0.84	65.97	0.739	0.119	14.04	< 0.001
Body weight (in Kg)	50.55	51.72	02.31	1.181	0.336	3.480	< 0.001

Table 6: Effects of Ayurvedic therapy on investigations of patients of ulcerative colitis

Investigations	Mean score		%	S.D.	S.E.	t Value	P Value
	B.T.	A.T.					
Hemoglobin (g%)	8.40	9.80	16.76	0.765	0.127	11.03	< 0.001
ESR (mm/H)	38.56	21.53	44.16	11.053	2.018	08.44	< 0.001
RBC in stool (/hpf)	2.86	0.2	93.02	1.124	0.205	12.98	< 0.001
Pus cells in stool (/hpf)	2.26	0.43	80.76	0.777	0.162	11.26	< 0.001

- Investigations like Hb g%, Erythrocyte sedimentation rate, Stool routine - microscopy and colonoscopy
- After confirming the diagnosis 43 patients were given the following treatment –
 - *Udumbara kvatha* (ingredient is *Udumbar tvak-Ficus glomerata*) – 40 ml/two times a day
 - *Lodhra tvak churna* (*Symplocos racemosa*) – 1 g + *Musta moola churna* (*cyperus rotundus*) – 1 g + *Nagakesara* (*Mesua ferrea*) *churna* – 1 g + *Mukta panchamrut rasa*-125 mg / three times in a day with water (the ingredients of *Mukta panchamrut rasa* are *Mukta bhasma* – 8 parts + *Praval bhasma* – 4 parts + *Banga bhasma* – 2 parts + *Shankha bhasma* - 1 part + *Shukti bhasma* – 1 part, processed in *Ikshurasa*, *Godugdha*, *Vidai svarasa*, *Kumari svarasa*, *Shatavari Svarasa*, *Tulasi svarasa* and *Hansapadi svarasa*).
 - *Kutaja Ghana vati* (ingredient is *Kutaja tvak-Holarrhena antidysenterica*) – 1g / three times a day.
 - *Udumbara kvatha basti* (ingredient is *Udumbar tvak-Ficus glomerata*) daily for one week and then twice a week for the next three weeks.

This treatment was given for a study period of one month.

Preparation of medicines

Medicines were prepared under expert supervision and purchased from Sunder Ayurveda Pharmacy, Nadiad.

Diet

Patients were kept on *pitta –shamaka*, *laghu*, *grahi* and *pathya* food articles.

If the patient was taking any modern medicine, doses of these were gradually reduced as the patient responded to Ayurvedic treatments.

Criteria for assessment

The improvement in the patients was assessed on the basis of relief in the symptoms and signs of the disease together with laboratory investigations. All the symptoms and signs were given grade scores and assessed before as well as after treatment. Changes in hemoglobin, ESR, and body weight were also recorded before and after treatment. Reductions in the doses of steroid and sulfasalazine drugs were also recorded.

Symptoms and signs	Score
Bowel frequency	
1 or 2 times in a day	0
3 or 4 times in a day	1
5 to 7 times in a day	2
8 to 12 times in a day	3
More than 12 times in a day	4
Blood in stool	
No bleeding	0
Occasional bleeding in stool (not daily)	1
Bleeding daily but less than 4 times in a day	2
Bleeding daily and 4 to 8 times in a day	3
Bleeding daily and more than 8 times in a day	4
Abdominal pain	
No pain	0
Tolerable pain	1
Mild pain	2
Moderate pain	3
Severe pain	4
Weakness	
No weakness	0
Tolerable weakness	1
Mild weakness	2
Moderate weakness	3
Severe weakness	4
Red blood cells in stool	
No RBC in stool	0
Less than 15/hpf	1
16-30/ hpf	2
31-50/hpf	3
Plenty or more than 50/hpf	4
Pus cells in stool	
No pus cells in stool	0
Pus cells less than 15/hpf	1
Pus cells 16-30/hpf	2
Pus cells 31-50/hpf	3
Plenty or more than 50/hpf pus cells	4

is equal. Of the patients, 83.72% were Hindu [Table 3]; 46.51% had less than 1 year chronicity; 20.93% patients belonged to the 1 to 3 years chronicity group; 20.93% were found in the more than 3 to 5 years chronicity group. Only 11.63% patients were found in the more than 5 years' chronicity group [Table 4].

Bowel frequency was reduced by 81.81% and this benefit was statistically highly significant, Bleeding in stool was reduced by 91.58% and this was also statistically highly significant, Abdominal pain was reduced by 86.76% and this too was statistically highly significant, Weakness was reduced by 65.97%, again a statistically highly significant result, Body weight was increased by 2.31% and it was also statistically highly significant [Table 5]. Hemoglobin level was increased by 16.76%, which was statistically a highly significant result, ESR was decreased by 44.16% and it was also statistically highly significant, RBC in stool was decreased by 93.02% and it too was statistically highly significant, Pus cells in stool were decreased by 80.76% and it also was statistically highly significant [Table 6]. Forty-three patients had positive occult blood test before starting this treatment. Only four patients were found with positive occult blood test after the trial therapy. So 90.70% patients showed negative occult blood test after this treatment.[Table 7]. The drug prednisolone was taken by 16 patients in this study and the dose was reduced by 87.32%, that suggests a highly significant result, The dose of the sulfasalazine drug was reduced by 77.00% and it was also statistically highly significant [Table 8]. None of the patients developed any new complication or new undesirable features [Table 9]. All the signs and symptoms, laboratory investigations and dose of steroids and sulfasalazine drugs were reduced, which was statistically highly significant.

Probable mode of action of the therapy

Ulcerative colitis is a disease of *purisha vaha srotas* which is caused by *Pitta pradhana Vata doshas*. *Udumbara kvatha* has properties of *Pitta Vata shamana* and also *vraha shodana* and *ropana*^[3] which help in healing ulcers in the colon by *basti karma*.

Observations, Results and Discussion

Most of the patients (93.02%) belonged to the 20 – 40 years age group [Table 1]. In this study 65.12% of them were males and 34.88% were females [Table 2]. In other studies of modern medicines, the incidence of this disease in males and females

Table 7: Effects of Ayurvedic therapy on occult blood test

Occult blood test	No. of patients found	
	B. T.	A. T.
Positive	43	04
Negative	00	39

Table 9: Improvement in symptoms and signs and investigations

No	Symptoms and signs and investigations	Improvement in %
1	Reduction in bowel frequency	81.81
2	Reduction in bleeding in stool	91.58
3	Reduction in abdominal pain	86.76
4	Reduction in weakness	65.97
5	Increase in body weight	02.31
6	Increase in hemoglobin	16.76
7	Reduction in ESR	44.16
8	Reduction in RBC in stool	93.02
9	Reduction in pus cells in stool	80.76

Table 8: Effects on reduction of the dose of steroids and sulfasalazine drugs

Name of drug	Mean score		%	S.D.	S.E.	t Value	P value
	B.T.	A.T.					
Prednisolone (mg/day)	11.09	1.40	87.32	4.366	1.091	8.87	< 0.001
Sulfasalazine (tab/day)	5.50	1.26	77.00	5.830	2.000	12.34	< 0.001

(Each tab is of 500 mg)

It also has *stambhana* properties that help in reducing the bowel frequency and check bleeding. *Kutaja ghan vati*^[4] contains *ghana satva* of *Kutaja tvak* and has an *Atisara nashaka* (*stambhana*) *guna* that also helps in reducing the bowel frequency. *Musta*^[5] with its *grahi* action relieves the ama in the body and also reduces the bowel frequency. *Nagakeshara* has *Raktatisara nashaka*^[6] and *Lodhra*^[7] has *rakta stambhaka* action that checks the bleeding. *Mukta panchamrut rasa*^[8] is a classical compound Ayurveda drug that relieves excessive *Pitta dosha* and *ushna guna* in body. One of the ingredients of *Mukta* also relieves mental stress which is a contributing factor to the disease.

Conclusion

On the basis of our clinical observation and discussion, it may be concluded that ulcerative colitis was found in middle-aged people between 20 to 40 years of age. The results obtained may be attributed to the disease-modifying effect of the trial therapy by means of its anti-pitta, *vranshodhana-ropana*, *grahi* and *stambhana* properties. All the signs and symptoms were reduced by more than 80% and the reduction was statistically highly significant. RBCs in stool which is the main clinical sign of this disease was reduced by 93.02%. Hemoglobin increased by 16.76%. The dose of steroids was reduced by 87.32%. All the results were statistically highly significant. The trial therapy is an ideal drug as a safe and effective alternative in case of

ulcerative colitis.

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