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Research Article

TO STUDY THE EFFICACY OF *RASA PARPATI* WITH *JATYADI GHRITA MATRA BASTI* IN THE MANAGEMENT OF ULCERATIVE COLITIS

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ABSTRACT

The ulcerative colitis is a specific and non-specific inflammatory disease of large bowel, which is usually confined to its mucosa, presents with remissions and exacerbations where, the pathetical changes are usually restricted to mucosa except in very severe acute attacks of the disease when they reach into the deeper layers of the bowel wall. Colitis is an acute, subacute, or chronic disease of the colon and rectum of variable etiology, course and unpredictable prognosis. *Bhaishajya Chikitsa* is one of the treatment modalities of the *Raktaatisar* (ulcerative colitis) given by *Ayurved* literature which is also very effective like other treatment modalities. Also people have now turned their faith towards *Ayurveda* to resolve their health problems and hence most of cases perusable conservative treatment as it is more economical, painless, no hospitalization is required and no complications observed during or after medication.

Modern medicine has limited source of medical treatment such as temporary medication with intestinal antibiotics, anti diarrhoeal, salazopyrine, steroids, immune modulator drugs and lastly surgery. Keeping all these facts in mind a clinical study was designed on the basis of *Sampraptivighatana Chikitsha*, for ulcerative colitis. *Rasa Parpati & Jatyadi Ghrita* having disease modifying potential and a good safely profile should thus be evaluated for use in this disease condition. The clinical study has been done on 60 patients, selected randomly and divided in two groups. Group A i.e trial group patients were treated with oral dose of Rasa *Parpati & Jatyadi Ghrita Matra Basti*. The Group B patients i.e. control group, were treated with Salazopyrine. The clinical assessment was done on the basis of clinical presentation of ulcerative colitis as well as colonoscopic findings, before and after the treatment. The findings of the study have been statistically analysed with the help of t-test and the result of the study found significant.

KEY WORDS: Ulcerative Colitis, Rasa Parpati, Jatyadi Ghrita, Matra Basti, Colonoscopy Findings.

INTRODUCTION

The ulcerative colitis is a specific and nonspecific inflammatory disease of large bowel¹, which is usually confined to its mucosa, presents with remissions and exacerbations where, the pathetical changes are usually restricted to mucosa except in very severe acute attacks of the disease when they reach into the deeper layers of the bowel wall. The disease doesn't have a clearly known etiology; has been rarely affecting eastern population is now reported more commonly. Reports say it is affecting 10 -15 new people per 100,000 population every year; equally affecting both sexes; uncommon under 10 yrs. of age, most patients are between the age of 20 - 40 yrs. at diagnosis, but some of the authors say that ulcerative colitis is mostly affecting the age group between 20-39 yrs, predominantly females².

Colitis is an acute, subacute, or chronic disease of the colon and rectum of variable etiology, course and unpredictable prognosis. Characterized by many local and systemic complications, cramping abdominal pain, anorexia, increased frequency of loose motions with

mucous and blood, tenesmus and weight loss. The female to male ratio of ulcerative colitis is found to be 4:3. As the civilization and materialization is increasing the incidence of ulcerative colitis is encountered more frequently in clinics, in modern medicine so many drugs are mentioned for treatment of ulcerative colitis like; sulfasalazine having both antibacterial and antiinflammatory properties.³ Glucocorticoids, purine analog compound, cytotoxic drugs, newer immunosuppressive agents and anti-tumor necrosis factors, etc. But, these drugs only control the episodes of the disease and not cure them; moreover these modern drugs have a huge list of possible side effects like intolerance and toxicity to other organs like liver, kidney, pancreas, eyes, etc. If we consider the surgical treatment of ulcerative colitis, it certainly gives better results but subsequently associated with massive complications like: change of lifestyle, change in dietary habits, and a colostomy with an external reservoir bag is a continuous psychological trauma to the patient in his social and personal life. Even if the continuity is restored with an ileorectal anastomosis there are fair chances of recurrence or with an ileoanal

anastomosis which lacks sphincter mechanism is associated with another set of complications⁴. Therefore, to avoid such complications and risks we need some other treatment modality. Keeping all these facts in mind a clinical study was designed on the basis of *Sampraptivighatana Chikitsha*, for ulcerative colitis. *Rasa Parpati & Jatyadi Ghrita* having disease modifying potential and a good safely profile should thus be evaluated for use of these drugs, in this disease condition.

Aims & Objectives

To study the etiological factors and pathogenesis of Ulcerative Colitis w.s.r. to Raktatisara in the influence of *Ayurvedic* and Modern parameters.

To study the efficacy of *Rasa Parpati* with *Jatyaadi Ghrita Matra Basti* w.s.r. to Raktatisara with colonoscopy findings.

To study the efficacy of Salazopyrine w.s.r. to *Raktatisara* with colonoscopy findings.

MATERIALS & METHODS

Materials

Clinical study: The study will be carried out in OPD & IPD of Shalya-Tantra dept of S.V.N.H.T.Ayurved college Rahuri. The patient attending OPD / IPD will be selected of their age, sex, religion, race, occupation etc. Fulfilling the criteria of selection & eligibility for study.

Plan of Study: Prior to the commencement of the therapy in the selected patients, general information both of the patients and the disease were made as below:

A complete history of the disease along with complaints was recorded as per the specially designed proforma for ulcerative colitis disease with written consent of patient.

Inclusive Criteria

Those patients presenting with the clinical features like:

- 1. Patients between age of 16 to 70 yrs.
- 2. Diarrhea containing watery stool, mucous, blood & with/without pus in stool.
- 3. Lower abdominal cramp
- 4. Early morning spurious diarrhea
- 5. Weakness
- 6. Inspection shows secondary fissures in the anal canal.
- 7.0n p/r examination, observed mucopus staining after withdrawal finger.
- 8. On proctoscope examination in rectum observed superficial multiple small ulcers.
- 9. Colonoscopy examination in colon observed superficial multiple small ulcers & change in regularity & granularity of mucosa.

Exclusive Criteria

Those patients presenting with the clinical features like:

- 1. Patients below 16 and above 70 yrs. of age.
- 2. Toxic megacolon
- 3. Systemic manifestations like arthritis, skin manifestations & iritis with corneal ulceration
- 4. Hb%. Less than or equal to 5 mg/dl.
- 5. Acute abdominal pain
- 6. Stool frequency more than 15 per day
- 7. Sign of Toxaemia
- 8. Cancer
- 9. Diabetes Mellitus
- 10. HIV
- 11. Tuberculosis
- 12. Chronic diseases

Investigations

- 1. Routine Blood (Hb, TC, DC)
- 2. Routine urine
- 3. Stool examination for occult blood
- 4. Colonoscopy
- 5. Serum electrolyte (if necessary)
- 6. Barium enema (if necessary)
- 7. Biopsy

Treatment Schedule: A total of 60 patients will be selected and treatment will be given in two groups.

Group A: Patients will be given treatment as:

1. Rasa Parpati⁵

- Dose 500mg
- Anupana Takra (Buttermilk)
- Form of Medicine Capsule form
- Route of Administration Oral route.
- Time of administration twice/daily
- Duration of Treatment 45 days
- Follow up weekly follow up of the patient presentations taken and colonoscopy is done every 15th day to appreciate the local changes in the colon mucosa.

2. Jatyadi Ghrita⁶

- Dose 20ml
- Form of Medicine liquid
- Route of Administration per rectal.
- Time of administration once daily
- Duration of Treatment 45 days
- Follow up weekly follow up of the patient presentations taken and colonoscopy is done every 15th day to appreciate the local changes in the colon mucosa.

Matra Basti Procedure

Equipments

- Red rubber catheter
- Dispovan syringe of 50 ml

- Cotton pads.
- Luke warm Jatyadi Ghrita
- Surgical gloves

Pre-operative

- If the patient got an urge to defecate, then he is asked to defecate first and then the procedure is started.
- Massage over lumber region using tila taila for 5 mins.
- Fomentation done by keeping a towel dipped in warm water over the lumer region for 5 mins.

Procedure

- Patient should lie in left lateral position.
- Retraction of the buttocks to expose the anal opening.
- Lubricate the tip of the red rubber catheter with the *Jatyadi Ghrita*.
- The tip is slowly inserted in the anus upto the rectum.
- The loaded syringe (with *Jatyadi Ghrita*) is approximated to the tail of the catheter.
- *Jatyadi Ghrita* is slowly and continuously injected into the rectum.
- Now, the rubber catheter is slowly removed and cotoon pad is placed over the anal opening.

Post-operative

- Head low position is given to the patient lasting for 30 mins.
- If patient desires to defecate then, he is asked to avoid the urge.
- Patient is allowed to conduct his regular activities after 30 mins.

Group B: Patients will be given treatment as:

Salazopyrine⁷

- Dose 500mg
- Form of Medicine Tablet form
- Route of Administration Oral route.
- Time of administration twice/daily
- Duration of Treatment 45 days
- Follow up weekly follow up of the patient presentations taken and colonoscopy is done every 15th day to appreciate the local changes in the colon mucosa

Follow Up Study

The patients of OPD have checked up weekly once and the changes have observed and documented for analysis. The colonoscopy is performed very 15th day.

- On day '0' to assess the before treatment presentation of the colon.
- On day '15' & '30' during the procedure to look for the effects of drug on colon
- On day '45' to assess the after treatment presentation i.e. the overall effect of the therapy on 1 patient.

Criteria of Assessment

The treatment effect has been assessed on the basis of the relief in signs and symptoms of the disease. This was done on every follow up day at OPD level and Colpnoscopy was performed on alternate follow up days. Scoring pattern was adopted to determine the relief in the cardinal symptom

Diarrhoea

- 0 No diarrhea
- 1 Diarrhea with <4 frequency & Consistency dome.

2 - Diarrhea with <6 frequency& Consistency semi liquid.

 $\mathbf 3$ - Diarrhea with 10 frequency & Consistency semi liquid.

4 - Diarrhea with ${<}10$ frequency & Consistency semi liquid.

Mucin Discharge

- 0 Absent
- 1 Mild (less quantity of mucous with more stool).
- 2 Moderate (equal quantities of mucous & stool).
- 3 Severe (more quantity of mucous with less stool).

Bleeding P/R

- 0 Absent
- 1 Mild (occult blood with Hb. 10g/dl)
- 2 Moderate (stool color red with Hb. 8g/dl)
- 3 Severe (blackish stool with Hb. <8g/dl)

Abdominal pain

- 0 No pain
- 1 Pain lasting for 15 min
- 2 Pain lasting for 15 to 45 mins
- 3 Continuous pain

Weakness

- 0 No weakness
- 1 Weakness after work for 2 hrs.
- 2 Weakness after work for 1 hr.
- 3 Weakness after work for 30 mins.
- Anaemia
- 0 No anaemia
- 1 Hb less than 10 mg/dl
- 2 Hb less than 8 mg/dl
- 3 Hb less than 6 mg/dl

Tenesmus

- 0 No tenesmus
- 1 2 to 3 times a day
- 2 4 to 5 times a day

3 - 5 to 6 times a day

Loss of weight

- 0 No weight loss
- 1 5 % of the body weight
- 3 15 % of the body weight
- 4 More than 15 % of the body weight

Colonoscopy findings

- 2 10~% of the body weight
- 0 Normal & healthy colon mucosa

1 - Mucosa is erythematous and granular. Superficial ulceration may be seen.

2 - Diffuse haemorrhagic inflammation with patches of exudates and microscopic ulcers may be seen.

3 - Pseudopolyposis (ulcers surrounded by heaped upareas of granulation tissue & edematous mucosa) with removable contracted lumen of rectosigmoid.

 ${\bf 4}$ - Ulcerative colitis with carcinoma of the colon as reported by biopsy investigation of the tumor in the colon mucosa

Results obtained are assessed as

1. Incurable	:	less than 25 $\%$
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- 2. Improved : 25% to 50%
- 3. Markedly Improved : 50% to 75%
- 4. Cured : more than 75%
- 5. LAMA : left against medical advice

RESULTS

Table 1: Effect of Therapy on Cardinal Symptoms of Ulcerative colitis in Group A

Cardinal Symptoms	N	Mean	Mean	S.D.	S.E.	't' cal.	p value	Result	% of Bolief
Loose Stools (frequency)	30	B.T. 2.23	A.T. 0.66	0.50	0.091	17.14	P<0.001	H.S	Relief 70
{Atisar}									
Mucin discharge	30	1.53	0.70	0.46	0.08	10.37	P<0.001	H.S	54
{Picchilastrav}									
Bleeding P/R {Gudagata	21	1.19	0.23	0.38	0.082	11.58	P<0.001	H.S	80
Raktastrav}									
Abdominal pain {Udarshula}	30	1.3	0.56	0.44	0.08	9.12	P<0.001	H.S	56
Nausea & Vomiting { <i>Hrullas</i> &	11	1.09	0	0.30	0.09	12.11	P<0.001	H.S	100
Chardi}									
Weakness {Dourbalya}	30	1.46	0.56	0.30	0.05	18	P<0.001	H.S	61
Anaemia { <i>Pandu</i> }	17	1.29	1	1.49	0.11	3.18	P<0.01	H.S	22
Tenesmus {Prawahana}	30	1.53	0.43	0.30	0.05	22	P<0.001	H.S	71
Loss of weight	29	1.51	1.13	0.62	0.11	3.36	P<0.01	H.S	25
Colonoscopy findings of the	30	1.56	0.83	0.43	0.07	10.58	P<0.001	H.S	46
colon.									

Table 2 : Effect of Therapy on Cardinal Symptoms of Ulcerative colitis in Group B

Cardinal Symptoms	N	Mean B.T.	Mean A.T.	S.D.	S.E.	't' cal.	p value	Result	% Of Relief
Loose Stools (frequency) { <i>Atisar</i> }	30	2.3	0.46	0.85	0.15	12.2	P<0.001	H.S	79
Mucin discharge { <i>Picchilastrav</i> }	30	1.53	0.30	0.63	0.11	10.90	P<0.001	H.S	80
Bleeding P/R {Gudagata Raktastrav}	29	1.55	0.17	0.56	0.10	13.70	P<0.001	H.S	88
Abdominal pain {Udarshula}	30	1.83	0.03	0.92	0.16	11.25	P<0.001	H.S	98
Nausea & Vomiting { <i>Hrullas & Chardi</i> }	12	1.08	0	0.28	0.08	13.50	P<0.001	H.S.	100
Weakness {Dourbalya}	30	1.96	0.66	0.59	0.10	13	P<0.001	H.S	66
Anaemia {Pandu}	17	1.64	1.23	0.50	0.12	3.41	P<0.01	H.S	25
Tenesmus {Prawahana}	30	1.96	0.3	0.69	0.12	13.33	P<0.001	H.S	84
Loss of weight	28	1.71	1.17	0.50	0.09	5.88	P<0.001	H.S	31
Colonoscopy findings of the colon.	30	1.66	1.03	0.55	0.10	6.3	P<0.001	H.S	38

Effect	No of Pt.	Percentage (%)	
Cured	03	10	
Markedly Improved	18	60	
Improved	09	30	
Incurable	0	0	

OVERALL EFFECT OF THERAPY

Table 4: Overall effect of Therapy in Group B

Effect	No of Pt.	Percentage (%)
Cured	04	13.33
Markedly Improved	26	86.66
Improved	0	0
Incurable	0	0

DISCUSSION

Mode of Action of Rasa Parpati

Rasa Parpati is useful in patients of *Raktatisara* (ulcerative colitis) by, enhancing the normal functioning of *Pakwashaya* due to its *Rasayana* property and *Gamitwa* towards *Pittadhara Kala. Parpati* has an important place in Rasa Kalpas, it is obtained in the form of flakes, gets disintegrated in the body at the level of *Grahanidhara* Kala. Hence it is specifically being used in *Grahani* related disorders like *Raktatisara* and *Pittatisara* and also effective in correcting appetite. Its mode of action is such that the Agni gets locked in the *Parpati* Kalpa making it to act best in disorders related to *Agnimandya*. The dose form is such that it doesn't act in the stomach, instead starts its action in the duodenum and onwards.

As described by *Bhaishajya Ratnavali* in the chapter of Sangrahani Rogaadhikar, Parpati acts on digestive system as Doshaghna, Jantughna and Balya. It settles the irritation and inflammation of colon mucosa by reducing laxity. The Rasa Parpati containing Shuddha Parada and Shuddha Gandhaka acts like Sanjeevani for all abdominal disorders like ulcerative colitis & other G.I. disorders. It helps to improve Grahana Karya of intestines thus, reducing complaints of Atisara (frequency). During the preparation of Rasa Parpati cow dung cakes are used which consists of Gopitta. The Rasa Parpati gets Samskara of Gopitta and attains Dipana-Pachana property and therefore causes Agnidipana and Amapachana which is desired in Raktatisara and Pittatisara.

The *Rasa Parpati* also helps in proper secretion of digestive juices causing correction of digestion; enhances absorption of nutrients & minerals and therefore, provides *Bala* and reduces malnutrition.

Mode of Action of Jatyadi Ghrita

The *Jatyadi Ghrita* has *Shodhana* and *Ropana* properties. It reduces inflammation by its *Shodhana* property and also by its anti-microbial

property, and therefore, reduces pain by minimizing the inflammation of the colon mucosa and simultaneously reduces *Srava* (mucin discharge). The *Jatyadi Ghrita* has *Nimba* as content, *Nimba* is *Krimighna* by its *Prabhava* and hence possess anti microbial activity in ulcerative colitis.

Given in the form of *Basti*, the *Jatyadi Ghrita* acts locally over the colon mucosa, causes *Shodhana* of *Pittadhara Kala*, enhances *Shoshana* of *Ahararasa* and therefore, reduces malnutrition and simultaneously minimizes weakness. The oily and sticky property of the *Jatyadi Ghrita* keeps the wound surface wet and thereby, facilitates healing of ulcers by its best *Vranaropaka* property. Also its *Raktastambhana* property provides haemostasis and thereby, reduces bleeding and occult blood loss in stool.

CONCLUSION

- *Rasa Parpati & Jatyadi Ghrita* show significant effect on Diarrhoea, Mucin discharge, Bleeding P/R, Abdominal pain, Nausea & Vomiting, Weakness, Anaemia, Tenesmus, Loss of weight and Colonoscopy findings.
- *Basti* Medicament containing *Jatyadi Ghrita* for its local effect has shown, improvement or cure of the ulcerations of the bowel by enhanced healing and subsiding inflammation & irritability of the colon.
- It also improves functions of *Apana Vayu*, situated in *Pakwashaya* and results into improvement of ulcerations and regulation of evacuation of the colon.
- Since, ulcerative colitis is an incurable disease and need to be maintained lifelong with palliative measures like steroids and anti inflammatory drugs. For a disease of short duration, use of the drugs having side effects can be neglected considering its much greater contribution in curing the disease, but, a disease like ulcerative colitis in particular; treatment has to be given for the whole life where the massive side effects of steroid therapy cannot be overlooked.

- For such a diseases, the role of Ayurvedic therapy is very vital, as *Rasa Parpati & Jatyadi Ghrita* show very minimal or no side effects and has been proved effective in limiting the symptoms of ulcerative colitis, in the present study.
- Considering Surgical management, the only option a patient of colitis is left with; is to undergo a pancolectomy with abdomino-perineal resection of the whole large bowel including the rectum and finally a colostomy which is very uncomfortable in the personal as well as social life of the patient and as evident by the history of such patients, carrying a colostomy bag and maintenance of its hygiene is a continuous mental trauma to the patient.
- An attempt has been made to minimize these colostomy associated complications, with an alternative of ileo-rectal anastomosis with ileal pouching (making an ileal reservoir to delay evacuation period) but this particular surgery is also under controversy.
- Keeping in mind these complications of surgical management, this Ayurvedic therapy is definitely a better option.
- The *Rasa Parpati* was administered in the form of capsules, which has increased the palatability of the drug and also prevents nausea and vomiting in a few patients because of its unpleasant and unacceptable taste. This preparation of *Rasa Parpati* in the form of capsules is modernization of Ayurvedic treatment and route of administration.

- The treatment with *Rasa Parpati & Jatyadi Ghrita* for the duration of 45 days shows marked relief in some patients and mild or moderate relief in some patients, depending upon the presentation and chronicity of the disease.
- In a few number of patients continuation of the therapy for a longer duration may show even better results on colitis.

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1. DRUG PHOTOGRAPHS



Figure 1: Preparation of Rasa Parpati



Figure 2: Prepared Rasa Parpati



Figure 3: Rasa Parpati in Capsules



Figure 4: Prepared Jatyadi Ghrita

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2. CLINICAL PROCEDURES



Figure 5: Video Colonoscope



Figure 6: Colonoscopy Procedure



Figure 7: Requirements of Matra Basti



Figure 8: Matra Basti Procedure

3. PHOTOGRAPHS OF COLONOSCOPY FINDIGS

Colonoscopy Findings in Group A (Treated with Rasa Parpati & Jatyadi Ghrita)



Figure 5: (a). Before Treatment



Figure 6: (b). After Treatment



Figure 7: Before Treatment



Figure 8: After Treatment



Colonoscopy Findings in Group B (treated with Salazopyrine)

Figure 9: Before Treatment

Figure 10: After Treatment



Figure 11: Before Treatment

Figure 12: After Treatment