



Case Report

www.ijrap.net

(ISSN Online:2229-3566, ISSN Print:2277-4343)



AYURVEDIC MANAGEMENT OF ULCERATIVE COLITIS (PITTAJA GRAHANI): A CASE REPORT

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Received on: 20/1/24 Accepted on: 01/3/24

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DOI: 10.7897/2277-4343.15230

ABSTRACT

Ulcerative colitis (UC) is a form of chronic inflammatory bowel disease characterised by inflammation of the mucosa and submucosa in the colon, relapsing and remitting. It has a reported incidence of 9-20 cases per 100,000 people annually and can significantly impact both mental and physical health, causing distress to patients. Here is a case report of a 45-year-old female who presented with symptoms including increased frequency of defecation (7 times/day) with mucus discharge, bloody stool, abdominal pain, reduced appetite, general debility, weight loss (>5 kg) and mental distress persisting for one year. She was found to be anaemic (Hb 6.8 gm%), and her pulse rate was 105 bpm. The colonoscopy report showed multiple superficial ulcers with erythematous mucosa, and a biopsy confirmed chronic active colitis. This case was diagnosed as Pittaja Grahani with Pandu (anaemia). The study aimed to evaluate the efficacy of Ayurvedic management in treating ulcerative colitis (Pittaja Grahani). Therapeutic measures included Ayurvedic oral medications and procedures such as abhyanga (oil massage), parisheka (sudation), takradhara, takra basti (buttermilk enema), pathyahara and yoga. Clinical parameters were assessed on the 1st, 12th and 45th day using the Truelove and Witts severity index scale for Ulcerative Colitis and the Patient Health Questionnaire-9 (PHQ-9) depression severity score. Improvements were observed in the frequency of defecation, bloody stool, pulse rate, general debility, and appetite throughout treatment. The results indicate marked alleviation of Ulcerative colitis symptoms with Ayurvedic management, suggesting its potential as a practical therapeutic approach in managing this condition.

Keywords: Ayurveda, Pittaja Grahani, Ulcerative Colitis, Takra Basti, Pathyahara, Yoga.

INTRODUCTION

Inflammatory bowel disease (IBD) is an immune-mediated, chronic intestinal condition. Ulcerative colitis (UC) and Crohn's disease (CD) are the two major types of IBD. Ulcerative colitis is an idiopathic, chronic inflammatory disorder of the colonic mucosa that commonly involves the rectum and may extend proximally and continuously to involve other parts of the colon. It is an intermittent disease, with periods of exacerbated symptoms and periods that are relatively symptom-free. It is a relapsing and remitting disease characterised by diarrhoea, rectal bleeding, tenesmus, passage of mucus and crampy abdominal pain. Other symptoms of moderate-severe disease include anorexia, nausea, vomiting, fever and weight loss.¹ Ulcerative colitis has an incidence of 9 to 20 cases per 100,000 people annually. Its prevalence is 156 to 291 cases per 100,000 people per year.² India has the highest incidence rate among Asian countries, according to the Indian Society of Gastroenterology. The growing incidence is related to the rapid westernisation of lifestyles as well as environmental changes brought about by industrialisation and urbanisation.³ The relevant risk factors, including smoking, hygiene hypotheses, microorganisms, appendectomy, medication, nutrition and stress, have all been reported to be associated with the Ulcerative colitis modality. Patients with Ulcerative colitis usually experience mental symptoms such as depression and anxiety, which might be due to the chronicity of Ulcerative colitis and impairment of daily life. The prevalence of depression and anxiety was 23% and 32.6% in patients with Ulcerative colitis, respectively.⁴ Treatment choices for ulcerative colitis patients are based on the extent of the disease

and its severity. The conservative management includes sulfasalazine, glucocorticoids, given orally or rectally, and immunosuppressants.² According to Ayurveda, ulcerative colitis can be understood as Pittaja Grahani. Grahani roga (chronic diarrhoea with malabsorption of nutrients) is one of the mahagadas (major disorders).⁵ Grahani is the seat of Jatharagni (digestive fire) and is supported and nourished by the strength of Agni. "Rogaa: sarve api mande agnou" - Grahani roga is caused by Mandagni (reduced digestive fire or digestive capacity).⁶ Grahani, Arsha (haemorrhoids) and Atisara (diarrhoea) manifest mainly due to the improper Agni (digestive fire).⁷ Nidana sevana (etiological factors) causes drava guna vrudhhi (increased liquidity quality) of Pitta, leading to Agnimandhya (reduced appetite). This leads to Grahani dushti, which gradually causes Grahani roga. Grahani roga is a stage where the normal functioning of Grahani is hampered, which is clinically expressed as the elimination of ama mala (poorly formed stools). In Pittaja Grahani, this is associated with symptoms like shula (pain), shotha (inflammation), atisara (diarrhoea), vrana (wound) and raktasrava (bloody discharge), etc. The primary line of treatment is to correct the Agni dushti (vitiating of digestive fire) by following langhana (lightness-promoting therapy) and using medications that are pachana (digestive), deepana (appetiser) and grahi (absorbent) in action.⁸

Patient Information

A 45-year-old female patient approached Kayachikitsa outpatient department of SDM Ayurveda Hospital, Hassan, Karnataka, India, with complaints of increased frequency of defecation (7

times/day) with mucus discharge, bloody stool, pain abdomen, reduced appetite, general debility, weight loss of more than 5 kg and mental distress for one year associated with eructation having foul smell and sour taste, burning sensation in the cardiac region and throat and anorexia. She habitually followed improper dietary patterns such as katu-amla ahara (pungent-sour food), ajeerna ashana (indigestible food), and mamsa ati sevana (excessive intake of meat). For this, she consulted a gastroenterologist and advised conservative management for ten days, from which she got symptomatic relief. However, the symptoms re-occurred, and

she approached SDM Ayurveda Hospital for further management.

Clinical Findings

On examination, pallor, pedal oedema present, afebrile, weight 57 kg, blood pressure 110/70 mm Hg, pulse rate 105 bpm and respiratory rate 18 cpm. A systemic examination revealed that the abdomen was soft, the left ileac was tender, there was no guarding, and there was no organomegaly. There were no signs of local inflammation on the anorectal examination.

Timeline

Table 1: Timeline of the case

Date	Relevant medical history
Aug 2022	Gradual onset of frequent defecation with mucus discharge and bloody stools, pain in the abdomen with gurgling sounds, reduced appetite and general debility. She took treatment from a nearby hospital and got symptomatic relief for a few days.
Oct 2022	Again, the condition got aggravated, so she consulted a gastroenterologist. A blood routine, urine routine, stool examination and ultrasonography of the abdomen and pelvis were done. Diagnosis of post-infectious IBS (?) was made, and medications were advised for ten days. The patient got symptomatic relief with the prescribed medications.
Sept 2023	Symptoms relapsed on intake of spicy and sour food, and she noticed weight loss (>5 kg).
Oct 2023	She consulted SDM Ayurveda Hospital for further management. A colonoscopy was done, which revealed ulcerative colitis.

Diagnostic Assessment

Clinical features

Atisrushta mala pravrutti (increased frequency of defecation), which is drava (watery), vidagdha (undigested), peeta varna (yellowish), and shleshma samsrushta (mucus discharge); hrut kantha daha (burning sensation in the cardiac region and throat); pooti amla udgara (eructation having a foul smell and sour taste); raktayukta mala paravrutti (bloody stools); udara shoola (pain abdomen); agnimandhya (reduced appetite); bala kshaya (general debility); karshya (weight loss>5 kg); manasah sadanam (mental depression); aruchi (anorexia); shuna pada (pedal oedema).^{1,8}

Colonoscopy: (26/10/2023)

Multiple superficial ulcers with erythematous mucosa are seen in the rectum, sigmoid colon, descending colon, splenic flexure, transverse colon, hepatic flexure and ascending colon. Impression: (?) Non-specific colitis.

Histopathology: (31/10/2023)

Report of colonoscopy biopsy, Chronic active colitis.

Diagnosis

Pittaja Grahani- Kapha, Rakta anubandha (Grahani roga due to vitiated Pitta associated with Kapha and Rakta), Ulcerative colitis.

Laboratory parameters: (24/10/2023)

Hb: 6.8 gm%, ESR: 08 mm/hr, platelet count: 5.99 lakhs/cmm, PCV: 22.3%, MCV: 50.8 fL, MCH: 14.7 Pg, MCHC: 28.9%

Therapeutic Intervention

Table 2: Timeline of intervention

Date	Intervention	Dose	Observations
23/10/23 (1 st day) to 25/10/23	1. Shadanga Paneeya 2. Sootashekhara Rasa 3. Dhatri Loha 4. Pathyahara- 8AM- Laja Manda 11AM- Laja Manda 2PM- Dadima Phala Rasa 5PM- Laja Manda 8PM- Peya 5. Sarvanga Parisheka with Dhanyamla + Dashamoola kwatha	50 ml TID (B/F) 1-1-1 (B/F) 1-1-1 (A/F) 150 ml 150 ml 150 ml 150 ml 150 ml -	On 27/10/2023 1. Appetite and anorexia improved by 70%. 2. Pain in the abdomen and pedal oedema were reduced by 80%. 3. The frequency of defecation was reduced to two times per day. 4. Mucus discharge: absent 5. The amount of blood in stools was reduced by 60%. 6. Eructation with foul smell, sour taste and burning sensation in the cardiac region and throat was reduced by 70%.
26/10/23	Above 1 to 4 continued. 5. Blood transfusion- Packed cell volume		
27/10/23 to 29/10/23	Above 1 to 3 continued. 4. Sarvanga Abhyanga - Bala Ashwagandha Lakshadi Taila f/b Parisheka - Dhanyamla + Dashamoola kwatha 5. Takra Shirodhara with Musta + Amalaki 6. Pathyahara: 8AM- Laja Manda 11AM- Jeeraka Siddha Takra 2PM- Mudga Amalaka Yusha 5 PM- Boiled Vegetables 8 PM- Odana + Takra 7. Yoga & pranayama:	- 150 ml 200 ml 150 ml 100 gm Q.S	On 30/10/2023 1. General debility improved by 40%. 2. Mental health improved by 30%. 3. Appetite and anorexia improved by 80%. 4. Pain in the abdomen and pedal oedema reduced by 90%. 5. The frequency of defecation was reduced to one time per day. 6. The amount of blood in stools was reduced by 80%. 7. Eructation with foul smell, sour taste and burning sensation in the cardiac region & throat was reduced by 80%

	A, U, M, OM- chants each five times, Pranayama- 10 rounds, Bhramari Pranayama- 5 times, Shanti Mantra- 5 min, Trataka session- 15 minutes												
30/10/23 to 03/11/23	Above 2 to 7 continued. 8. Takra Yoga Basti: N = Niruha Basti- Honey Saindhava Lavana Kalka- Dadimashtaka Churna + Yashtimadhu Churna Takra A = Anuvāsana Basti- Dadimadi Ghrita <table border="1" style="margin-left: 20px;"> <tr> <td>N</td> <td>N</td> <td>N</td> <td></td> <td></td> </tr> <tr> <td>A</td> <td>A</td> <td>A</td> <td>A</td> <td>A</td> </tr> </table>	N	N	N			A	A	A	A	A	60 ml 10 gm 10 gm 10 gm 250 ml 40 ml	On 03/11/2023 1. General debility improved by 60%. 2. Mental health improved by 60%. 3. Appetite and anorexia improved by 90% 4. Pain in the abdomen and pedal oedema - absent 5. The frequency of defecation was reduced to once per day. 6. Amount of blood in stools - absent 7. Eructation with foul smell, sour taste and burning sensation in the cardiac region and throat reduced by 90%.
N	N	N											
A	A	A	A	A									
03/11/23 (12 th day)	Discharge medicines 1. Sootashekhara Rasa 2. Dhatri Loha 3. Aravindasava 4. Jeerakadyarishta 5. Pathyahara	1-1-1 (B/F) 1-0-1 (A/F) 15 ml TID (A/F) 15 ml TID (A/F)	On 06/12/2023 1. General debility improved by 90%. 2. Mental health improved by 90%. 3. Reduced appetite and anorexia- absent. 4. Pain in abdomen and pedal oedema- absent 5. The frequency of defecation was reduced to once per day. 6. Amount of blood in stools- absent 7. Eructation with foul smell, sour taste and burning sensation in the cardiac region and throat were absent.										
06/12/23 (45 th day)	First follow-up												

B/F- before food, A/F- after food, TID- three times a day, Q.S- quantum sufficient

Outcomes

Parameters were assessed on 1st, 12th and 45th day through

- Truelove and Witts severity index scale for ulcerative colitis⁹
- Patient Health Questionnaire-9 (PHQ-9) depression severity score¹⁰

Improvements were observed in the signs and symptoms of ulcerative colitis (Pittaja Grahani).

Table 3: Outcomes

Parameter	BT	AT	Follow-up
Bowel movements	7 times/day	1 time/day	1 time/day
Blood in stools	Severe	No	No
Pyrexia	No	No	No
Pulse rate > 90 bpm	Yes	No	No
Anaemia	Yes (6.8 g/dl)	Yes (8.6 g/dl)	Yes (8.6 g/dl)
ESR	Mild	Mild	Mild
Pain abdomen	Present	Absent	Absent
Reduced appetite	Present	Absent	Absent
General debility	Present	Improved	Improved
Pedal Oedema	Present	Absent	Absent
Weight	57 kg	58 kg	62 kg
Mental depression	Moderately severe (17)	Mild (7)	Minimal (2)

BT- before treatment, AT- after treatment

- Truelove and Witts severity index scale: before treatment: severe; after treatment: moderate.
- Patient Health Questionnaire-9 (PHQ-9) depression severity score for mental health: Before treatment: moderately severe; after treatment: minimal.

DISCUSSION

Grahani roga (chronic diarrhoea with malabsorption of nutrients), a chronic disease of the annavaha srotas (channels carrying food) and purishavaha srotas (channels carrying stools), develops due to the alteration of agni (digestive fire) and manas (mind). The primary treatment involves correcting agni, shareerika doshas (bodily humours) and manasika doshas (morbid humours of the mind). The treatment modalities adopted in this case include deepana (appetiser), pachana (digestive), grahi chikitsa (absorptive action) to correct agni dushti (vitiating digestive fire) and to reduce srava (anti-diarrheal), shothahara chikitsa (anti-inflammatory), pandughna (haematinic), brimhana chikitsa

(nourishing therapy), pathyahara (wholesome food), yoga and pranayama.

Probable mode of action of oral medications

Shadanga Paneeya has the properties of tikta pachana and Pitta-Kaphahara (suppressors and eliminators of deranged Pitta and Kapha doshas).¹¹ Musta (*Cyperus rotundus*) is Pittahara (eliminative of deranged Pitta) and grahi (absorptive action) and has antibacterial, anti-ulcer, analgesic, anti-inflammatory, and anti-diarrheal properties due to the presence of chemical components such as flavonoids, tannins, tri-terpenoids, cyperolone, etc.¹² Sootashekhara rasa is amlapittaghna (reduces hyperacidity) and agnivardhaka (improves digestive fire), as indicated in sama Pitta (Pitta associated with metabolic toxins) and Grahani roga.¹³ Jeerakadyarishta contains Jeeraka (*Cuminum cyminum*), Shunti (*Zingiber officinale*), Musta (*Cyperus rotundus*), Dhataki (*Woodfordia floribunda*), etc., which do Kapha-Vatahara, sangrahi (absorbent), pachana (digestive), and agni deepana (appetiser). It is indicated in Grahani

(gastrointestinal disorder), Atisara (diarrhoea) and Agni vaikruta (impaired digestive fire) conditions.¹⁴ Aravindasava provides bala (immunity/strength), pushti (nourishment), agni vardhana (improves digestive fire) and Pittanubandha Kaphahara activity.¹⁵ Dhatri Loha contains Amalaki (*Emblica officinalis*), Loha bhasma (iron), Yashtimadhu (*Glycyrrhiza glabra*) and Guduchi (*Tinospora cordifolia*), which have Pitta pradhana tridosha shamaka (balancing three regulatory functional factors), rasa poshaka (nutritional), pandughna (haematinic), rakta prasadana (blood purifying) and rasayana (rejuvenating) qualities.¹⁶

Probable mode of action of external therapy

Abhyanga (oil massage) is done with Bala Ashwagandha Lakshadi Taila, which is Vata-Pita shamaka (pacifies Vata-Pitta dosha), rakta prasadana (haematinic) and pushtikara (nourishment).¹⁷ The substances applied to the skin through abhyanga and parisheka are being absorbed and assimilated by the Bhrajaka Pitta (Pitta for complexion) through its functions of deepana (appetiser) and pachana (digestive). Abhyanga makes a person kleshasaha (helps overcome anxiety and stress), balavan (improves physical strength), and dhatu poshaka (promotes the quality of body tissues). Abhyanga improves the lymphatic circulatory system. Lymph contains tryptophan and albumin. Tryptophan increases in blood plasma after lymphatic massage, which increases neurotransmitters and serotonin, which helps fight against anxiety and depression.¹⁸ Parisheka swedana (sudation therapy) does srotoshuddhi (purification of channels) and provides laghuta (lightness) in the body.

Takra Shirodhara (pouring buttermilk in a stream over the forehead) helps to restore the equilibrium of shareerika doshas (bodily humours) and manasika doshas (morbid humours of the mind). Through Shirodhara, sthapani marma (a vital point located in the forehead, in between the eyebrows) is stimulated, and the pituitary gland is indirectly stimulated, leading to psycho-somatic changes. During Shirodhara treatment, constant pressure is applied over the forehead due to the continuous movement of fluid. This pressure brings some chemical changes, such as acetylcholine, which calms the mind and helps in relieving the symptoms of depression.¹⁹

Probable mode of action of Basti (medicated enema)

Anuvasana Basti (oil enema) is given with Dadimadi Ghrita, which contains Dadima (*Punica granatum*), Dhanyaka (*Coriandrum sativum*), Chitraka (*Plumbago zeylanica*), Shunthi (*Zingiber officinale*), Pippali (*Piper longum*) having tridoshahara, deepana (appetiser), pachana (digestive), raktavardhaka (haematinic) and muda vatanulomana (carminative) properties.²⁰ Dadimadi Ghrita is agni deepaka (improves digestive fire), anabhishyandhi (which does not block channels) and Pitta shamaka. Dadima (*Punica granatum*) has the properties of deepana (appetiser), rochana (improves taste), grahi (absorbent), hridya (cardiotonic), tarpana (nutrition), shramahara (anti-fatigue) and balaprada (giving strength). Reported research activities on *Punica granatum* have antidiarrheal, anti-inflammatory, analgesic, wound healing, anti-ulcerative and immunomodulatory activity. The consumption of pomegranate products leads to a significant accumulation of ellagitannins in the large intestines, where they interact with complex gut microflora. Studies conducted on the effects of pomegranate (*Punica granatum* L.) byproducts and ellagitannins on the human gut microbiota have shown that probiotic lactobacilli and bifidobacteria were generally not affected by ellagitannins but inhibited the growth of pathogenic clostridia and *Staphylococcus aureus*.²¹

Niruha Basti (decoction enema) is administered with takra (buttermilk) (Takra Yoga Basti—enema of medicated buttermilk). Takra is considered best in Grahani roga due to its laghu guna (lightness quality), deepana (appetiser), pachana (digestive), grahi (absorbent) and tridosha shamaka properties. Probiotics found in buttermilk have been shown to restore the bacterial flora of the intestinal mucosa.²² Alterations in gut microbiota composition are associated with gastrointestinal infections, inflammatory bowel disease (IBD) and irritable bowel syndrome (IBS). Treatment involves regulating and restoring the balance of the abundance and diversity of the intestinal microbiota. Probiotics can introduce beneficial functions into the gastrointestinal tract, enhance the function of existing microbial communities, and correspondingly impact immunity and neurobiology through the gut-brain axis.²³ Yashtimadhu (*Glycyrrhiza glabra*) is Pitta shamaka (pacifies Pitta dosha), vrana shothahara (anti-inflammatory), vrana ropaka (wound healing), vedanahara (analgesic) and bala krit (provides strength). The phytopharmacological perspective of Yashtimadhu (*Glycyrrhiza glabra*) has anti-inflammatory, analgesic, anti-oxidant and ulcer-healing properties.²⁴ Dadimashtaka churna has Vata Kaphahara (pacifies Vata Kapha dosha), grahi (absorbent), deepana (appetiser) and muda vatanulomana (carminative) properties and helps in digestion, improves metabolic activity, promotes appetite and reduces loose stools.²⁵

Probable mode of action of Pathyahara (wholesome food)

Initially, Laja manda (a thin gruel prepared out of parched rice), dadima phala rasa (juice of pomegranate), jeeraka siddha takra (buttermilk prepared with cumin seed) and peya (thin gruel of rice along with its solid portion) were given. Since the functioning of agni (digestive fire) is impaired in Grahani roga, it must first be corrected through the ahara dravya (food items) along with medicines having pachana (digestive) and deepana (appetiser) action to bring about ama pachana (digestion of metabolic toxins) and to correct mandagni (reduced digestive fire). Laja (parched rice) is used as manda (thin gruel), indicated in Amaja Grahani. It has the properties of Kapha Pittahara, laghu (lightness), grahi (absorbent) and anaha-shulahara (relieves constipation and analgesia) and stimulates digestive fire, light to digestion, increases appetite, gives strength and nourishes the dhatus (essential body tissue).²⁶ It is also achieved by the jeeraka siddha takra by its amla (sour), katu (pungent), kashaya rasa (astringent), laghu (lightness), ruksha guna (dryness quality), ushna virya (hot potency), deepana (appetiser), pachana (digestive) and sangrahi karma (absorbent).²⁷ After observing improvement in appetite, Mudga Amalaka yusha (soup prepared from green gram and Amalaki), boiled vegetables and odana (boiled rice) with takra (buttermilk) were added to the diet to supplement nutrition. Mudga yusha (green gram soup) possesses snigdha (unctuousness), laghu (lightness), Kapha Pitta shamaka, deepaniya (appetiser), sheetala (coldness), vranahara (wound healing), dahashamaka (pacifying burning sensation), tushti (satisfaction), pushti (nourishment) and hridya (cardiotonic) properties.²⁸ As a result, dietary interventions can help alleviate the symptoms and improve the overall quality of life.

Probable modes of action of Yoga and Pranayama (meditation)

Gastrointestinal diseases (e.g., inflammatory bowel disease) are frequently accompanied by psychological comorbidities such as anxiety and depression, which are related to changes in the gut microbiota. The gut microbiota has direct and indirect effects on the emotional and cognitive centres of the brain.²⁹ Alterations in the gut microbiota are associated with alterations in the gut-brain communication system.³⁰ The yoga module includes postures,

breathing exercises and meditation. The relaxing and calming effects of yoga and pranayama (breath control) create positive physiological changes in the entire body by modulating the nervous system.³¹ Rhythmic breathing techniques have been shown to alleviate symptoms of anxiety, depression and stress-related ailments and have a positive impact on heart rate, resulting in improved mental health.³²

CONCLUSION

Ulcerative colitis is a chronic condition that progresses in a relapsing-remitting pattern. Because of the bi-directional relationship between Ulcerative colitis and mental health, people with ulcerative colitis are more likely to develop depression, anxiety, or both, and these issues can exacerbate the symptoms of Ulcerative colitis. In Ayurveda, Ulcerative colitis can be correlated with Pittaja Grahani. In this case study, treatment modalities adopted were amapachana (digestive), deepana (appetiser), grahi (absorbent), shothahara (anti-inflammatory), rakta vardhaka (haematinic), brimhana (nourishment), yoga and pranayama (meditation). The current study reported that Ayurvedic management showed marked improvement in the signs and symptoms of Ulcerative colitis and mental health.

Patient Perspective

The patient was satisfied with the treatment in terms of reduced frequency of defecation with mucus discharge, bloody stool, pain in the abdomen, improved general debility, appetite and mental health.

Patient Consent

Informed consent for publication of this case study has been obtained from the patient.

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Cite this article as:

Anand Revanasiddappa Jalawadi, Vasantha B, Muttappa Totad, Harish M Hadapad and Merlyn T Jones. Ayurvedic management of Ulcerative Colitis (Pittaja Grahani): A Case Report. Int. J. Res. Ayurveda Pharm. 2024;15(2):16-21
DOI: <http://dx.doi.org/10.7897/2277-4343.15230>

Source of support: Nil, Conflict of interest: None Declared

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