

ROLE OF *PICCHA BASTI* (UNCTUOUS ENEMA) AND *SANSHAMANA CHIKITSA* IN THE MANAGEMENT OF *JEERNA RAKTAATISAARA* (ULCERATIVE COLITIS): CASE REPORT

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ABSTRACT

Ulcerative colitis is an inflammatory disorder which affects the mucosa and submucosa of the colon of the gastrointestinal tract. The dominant symptom is diarrhea, often associated with blood and mucus & Constipation due to rectal spasm in elderly. In addition, nocturnal defecation, abdominal pain (usually lower quadrant or rectal), fever, malaise and weight loss may also be reported. Localized rectal involvement may be characterized only by bloody diarrhea, with or without urgency, tendency, pain or incontinence with abnormal structural pathology in the descending colon, particularly sigmoid colon. **Case Presentation:** Patient having following chief complaints since one and half year; 1.Pain in abdomen which increased during empty stomach and after having meals, 2.Sticky stool defecation, 3.Mild abdominal pain during bowel defecation, 4.Burning sensation in abdomen after having spicy meal, 5.Blood mixed sticky stool defecation with reddish black in colour, 6.Frequent bowel defecation-4 to 6 times/day, 7.Weight loss within 4 to 6 months, 8.Decreased appetite, 9.Suffered from anxiety, 10.Decreased sleeping, 11.Feel generalized weakness & laziness, 12.Nausea after having heavy meal. **GIT Examination:** Palpation-Soft abdomen, Tenderness present in umbilicus region & hypogastric region, No Hepatosplenomegaly, No any lump, Normal in guarding, Rigidity. **Diagnosis:** *Jeerna Raktatisaara* (Ulcerative colitis). **Management:** Through *Piccha Basti* (Unctuous Enema Therapy) and *Sanshamana Chikitsa* (Oral Drug Therapy), a complete ayurvedic management. **Outcome:** Improvement in Bowel frequency, Blood in stool, Abdominal pain, Weakness, Red blood cells in stool and Pus cells in stool are observed which has been briefly describe. **Discussion:** *Piccha Basti* acts as *Raktastambhaka*, *Vranaropaka*, *Shothahara*, *Agnideepaka* and *Sangrahi*.

KEYWORDS: Ayurveda, *Raktaatisaara*, Ulcerative colitis, *Pichha Basti*, Colon, Rectum.

INTRODUCTION

Ulcerative colitis is a form of chronic inflammatory bowel disease that causes non-granulomatous inflammation and ulcers in the rectum and colon.^[1] its incidence is raising especially in Northern India, due to erroneous dietary habits and faulty lifestyle. This is substantiated by the fact that urban areas have a higher incidence of Ulcerative colitis than rural areas, and high socio-economic classes have a higher prevalence than lower socio-economic classes.^[2] The peak age of onset of UC is between 20 to 40 years of age, 10 per 100,000 persons are at risk.^[3] A second peak occurs between the ages of 60 and 80 yrs. The male to female ratio for UC is 1:1.^[4] In conventional Western medicine, some drugs like Sulfasalazine may give mild relief in signs and

Even after taking steroid and Sulfasalazine drugs, patients suffer from the disease. So, the patients are always seeking some alternative therapy promising more effective and safer outcomes.

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. In modern medical science, there is no permanent curative and safe treatment for this disease.

A westernized environment and lifestyle are linked to the appearance of ulcerative colitis which is associated with smoking, unhealthy diet, medication use, stress etc. In Allopathic system of medicine drugs like 5-Amino salicylates, Glucocorticoids, Anti-TNF therapy etc. are

used for its treatment but they have many side effects like Headache, Nausea, Vomiting, Hypersensitivity reactions due to Sulfasalazine, Osteoporosis due to use of Glucocorticoids etc. The various conditions described in Ayurveda like *Raktatisaara*, *Kshataja Grahani* and *Sangrahani* resemble to ulcerative colitis due to similarity in symptoms. *Acharya Sushruta* has described *Raktaatisaara* as advanced stage of *Paittika Atisaara*. Its symptoms like *Shoolama*, *Vidaahama*, *Gudpaaka* & *Raktapravritti* can be compared with rectal Pain, Inflammation, Rectal ulceration and Bleeding of ulcerative colitis. Vitiation of *Agni* (*Agnimandya*) is the main cause of all these conditions. Use of *Deepana*, *Pachana* drugs and *Pichha Basti* are quite effective in *Raktatisaara*. Along with this, *Pichha Basti* is considered best among all of the *Basti* by *Acharya Charaka* for the treatment of *Sangrahani*, *Raktaatisara* etc. *Acharya Charaka* has described *Piccha Basti* for the treatment of *Pravahika* (Dysentery), *Gudabhransha* (Rectal prolapse), *Raktasraava* (Bleeding per rectum), *Jwara* (Fever), *Pitta-Atisaara*, *Shotha* (Inflammation), *Gulma*, *Jeernatisaara* (Chronic diarrhoea) and *Grahani Dosha*. *Acharya Sushruta* has also given the similar indications of *Pichha Basti*.

The etiological factors of UC are Genetic Susceptibility, Defective Immune regulation, exogenous factors and Environmental factors. The symptoms are of UC mainly of gastro-intestinal origin and extra intestinal origin. Gastro-intestinal symptoms include^[5]: Diarrhea mixed with blood and mucus, Bleed on rectal examination, Anemia, Abdominal pain, Increased abdominal sounds, Fever, Rectal pain, Malnutrition, Weight loss and Extra intestinal symptoms include^[6]: Aphthousulcer, Ophthalmic, Iritis, Episcleritis, Musculoskeletal, Ankylosingspondylitis, Sacroiliitis, Cutaneous (related to the skin): Erythemanodosum, Pyodermagangrenosum.

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. The other symptoms of UC are Diarrhea, Tenesmus, Passage of mucus, Crampy abdominal pain often related to defecation, Anorexia and Weight loss. Thus, the disease is quite cumbersome for the patient. It disturbs the daily routine of the patient, reduces personal productivity. Moreover, it poses a challenge for Medical health professionals due to its high morbidity and mortality. The highest mortality is during the first years of disease and in long duration disease due to risk of colon cancer.^[7] Ayurvedic system of medicine is very beneficial in the treatment of Ulcerative colitis. *Piccha Basti* is named so because of its *Picchila* property which means it is sticky or lubricant. Because of this property, it has ulcer healing effect. Moreover, It is *Agnideepaka* and *Sangrahi* due to its contents. Thus, *Deepana-Pachana Chikitsa* forms the mainstay of the treatment.

Understanding ulcerative colitis from ayurvedic point of view

From Ayurvedic point of view, Ulcerative colitis can be considered as a *Pitta Pradhana Tridoshaja* disease of *Purishavaha Srotasa*. *Nidana Sevana* leads to vitiation of *Pitta* along with *Vridhhi* of *Kapha* and *Vata*. *Vridhha Kapha* and *Vata* cause the vitiation of *Agni* leading to *Agnimandya*. Excessive consumption of *Pittaja-Ahara* (*Pitta* aggravating foods) and *Pitta* aggravating regimen leads to vitiation of *Pitta Dosha* which further cause the vitiation of *Rakta Dhatu*. *Dosha Sanchaya* takes place in *Grahani* and *Pakwashaya* (Rectum and Colon) which results in *Shoola* (abdominal pain), *Shotha* (inflammation of intestine), *Atisaara* (Diarrhoea), *Vrana* (Ulcers) and *Raktasraava* (bleeding per rectum) etc.

Vitiated *Kapha* blocks the channels causing further inflammation, mucous accumulation and oedema.

AIMS AND OBJECTIVES

1. To understand the role and efficacy of *Piccha Basti* in the management of *Raktaatisaara* (Ulcerative colitis).
2. To prove the role and efficacy of *Sanshamana chikitsa* followed by *Piccha Basti* in the management of *Raktaatisaara* (Ulcerative colitis).
3. To provide ayurvedic as well as modern pharmacological action of each drug in the management of *Raktaatisaara* (Ulcerative colitis).
4. To provide a large population suffering from *Raktaatisaara* (ulcerative colitis), a future possibility of safer treatment; this can be helpful in reducing the need of steroids and surgical processes.

MATERIALS AND METHODS

1. *Piccha Basti* was administrated for 14 days before meal in appropriate amount 100ml, 100ml, 110ml, 110ml, 110ml, 140ml, 110ml, 110ml, 120ml, 120ml, 120ml, 130ml, 150ml & 180ml as per classical method of ayurveda.

2. *Sanshamana Chikitsa* was carried out through administration of *Daadimaashtaka churna*, *Akik pisti*, *Bilwa churna*, *Kutajaparpati*, *Kutajabilwa* syrup, *Ajamodaadi churna*, *Gandhaka vati*, *Bhrishta haritaki churna*, *Panchamrita parpati*, Tablet *Bowelcare*, *Shatapushpa churna*, *Ajamodadi churna*, *Jaatiphalaadi churna*, *Aamadoshantaka vati*, Syrup *Anarmix*, *Kutajaghanavati* and Tablet *Shatavari* during 6 follow-up till 5 months of treatment.

- Study is carried out as per International conference of Harmonization-Good Clinical Practices Guidelines (ICH-GCP).

CASE REPORT

A. Presenting complaints with duration: A patient of name XYZ, age 35 years old & sex male having following chief complaints since One and half year, 1. Pain in abdomen which increased during empty

stomach and after taking meals, 2. Sticky stool defecation, 3. Mild pain in abdomen during Bowel defecation, 4. Burning sensation in abdomen After taking spicy food, 5. Blood mixed sticky stool defecation with reddish black in colour, 6. Frequent bowel defecation-4 to 6 times/ day, 7. Weight loss within 4 to 6 months, 8. Decreased appetite, 9. Suffered from anxiety, 10. Decreased sleeping, 11. Feel generalized weakness & laziness, 12. Nausea after having heavy meal.

B. History of Present Illness: Patient was asymptomatic before one and half year ago. First of all, he developed pain in abdomen in umbilical region, nausea after having meals, blood mixed mucous stool defecation, burning sensation in umbilical region, weight loss and anxiety with abnormal appearance. He had history of allopathic as well as ayurvedic medication but there had no benefit. Patient came to N.I.A.-OPD for his proper treatment.

C. History of Past Illness

1. Patient had no H/O Diabetes mellitus, Hypertension, Dengue, Tuberculosis, Hypothyroidism, Typhoid, Malaria, Hernia, Liver disease etc.

2. Patients had no H/O any type of Surgery, Sexual Disease, Communicable disease and Chronic Disease.

D. Dietary History

1. Type of diet-Vegetarian,
2. Regular food habit,
3. Dominant *Rasa* in diet-All with Salty, Acid, Bitter in dominancy,
4. Alcohol Addiction-No,
5. Smoking Addiction-Yes, 3-4 cigarette/day.

E. Family History: 1. Type of family-Single family with 3 members including female baby,
2. No any relevant treatment history of family member.

F. Socio-economic status: Middle higher.

Examination of patient

A. Ashtavidha Pariksha (Eight-fold Examination)

1. **Pulse**-Rate-76/ min, Rhythm-Regular, Volume-Normal, Tension-Normal, Force-Normal
2. **Stool**-Amount- less than normal, Colour-Reddish black, Smell-Foul, Nature-Sticky, Appearance-Blood mixed stool defecation.
3. **Urine**-Amount-4 to 5times/day, Colour-Pale yellow, Smell-Pungent odour.
4. **Tongue**-Coated with small ulcers, Colour-Reddish, Nature-Moist, Taste Sensitivity-Normal for all, Normal in shape & sized, No any tumour or nodular structure.
5. **Touch**-Normal in sensitivity, feel both cold & hot touch, Moist in nature, Afebrile, Normal in colour.

6. Eye-Normal in vision, No redness, No H/o Cataract, Glaucoma, Retinal detachment.

7. Appearance-Lean & thin body build-up, Normal in appearance.

8. Voice-Low pitches normal voice with clarity.

B. Dashavidha Pariksha (Ten-fold Examination)

1. **Prakriti**-Vata-Pittaja
2. **Vikriti**-Dosha-Dushya Samoorcchana,
3. **Pitta Pradhan Kaphajavikriti**
4. **Sara**-Madhayama
5. **Samhanana**-Madhayama
6. **Pramana**-Madhayama
7. **Satva**- Madhayama
8. **Saatmya**-Madhayama
9. **Ahara-Shakti**-Madhayama
10. **Vyayaama Shakti**-Madhayama
11. **Vaya**-Madhayama

C. Srotasa Examination

1. **Pranavaha Srotas**-NAD
2. **Udakavaha Srotas**-NAD
3. **Annavaha Srotas**- Anannabhilasha (Lack of desire for food), Avipaka (Indigestion)
4. **Rasavaha Srotas**-NAD
5. **Raktavaha Srotas**-NAD
6. **Mansvaha Srotas**-NAD
7. **Medovaha Srotas**-Alasya (Lethargy)
8. **Ashtivaha Srotas**-NA
9. **Majjavaha Srotas**-NAD
10. **Shukravaha Srotas**-NAD
11. **Manovaha Srotas**-NAD
12. **Artavaha Srotas**-NAD
13. **Mootravaha Srotas**-NAD
14. **Purishavaha Srotas**- Raktayukta Purish tyaga (Blood mixed stool defecation), Picchila Mala tyaga (Sticky stool defecation with mucous)
15. **Swedavaha Srotas**-NAD

D. General Physical Examination: Appearance-Normal, Symmetrical, **Temp.**-Afebrile, **P/R**-76/min, **R/R**-20/min, **B.P.**-110/90 mmHg, **Weight**-49kg, **Height**-5 fetes & 5 inches. **Pallor**-Absent, **Jaundice**-Absent, **Cyanosis**-Absent, **Oedema**-Absent, **Lymph node**-Cervical/ Axillary/Inguinal-No any sign of lymphadenopathy. **Skull**, **Oral cavity/Throat**, **Neck**, **Nose**, **Ear**, **Eyes**, **Hair**, **Bones**, **Joints**, **Nails & Skin**-Normal in appearance without any deformity.

E. Systemic Examination

1. Respiratory Examination: **Inspection**-B/L symmetrical chest wall, No any scar marks, No any skinny lesions at chest region from front to back side both, No any deformity of chest wall like Kyphosis, Lordosis, Scoliosis etc. **Palpation**-No Tenderness in chest region, **Percussion**-Resonant sound present, **Auscultation**-B/L equal air entry, No added sound present.

2. Cardiovascular examination: Inspection- Normal precordium, **Palpation-** No Tenderness in cardiac region, **Percussion-** Cardiac dullness present, **Auscultation-** S1 & S2 normal, P/R-76/min.

3. GIT Examination-Inspection: Smooth skinny, No dilated superficial vein, No any rashes/ lesions/ pigmentation like Erythema No spider angiomas, Scaphoid abdomen, No any surgical & scar mark, Normal umbilicus without any bulging or inversion, Pulsations are not visible over abdomen, No hernial like structure like Incisional hernia, Umbilical hernia & Inguinal hernia. **Palpation-** Soft abdomen, Tenderness present in umbilicus region & hypogastric region, No Hepatosplenomegaly, No any lump, Normal in guarding, Rigidity & Skin elasticity or turgor. **Percussion-** Fluid thrill test, Shifting dullness test, Horse-shoe shaped dullness & Puddle sign-Absent. **Auscultation-** Abnormal bowel sounds, Vascular bruits, Venous hum, Friction rub & Succession Splash-Absent.

4. CNS Examination-Higher system examination

Have good consciousness, Intelligence, Behaviour, memory & speech, Rt. Handed, have normal gait, all cranial nerves are well intact, **Motor System-** Have normal Nutrition, Tone, Power & Co-ordination without involuntary movements. **Sensory system-** Have normal touch, pain & pressure in sensation. **Reflexes-** Superficial reflexes, Deep Tendon reflexes & Organic reflexes are within normal limits. **Cerebellar sign-** Sign of meningeal irritation, Neck rigidity/Kerning sign/Brudzinski sign-Absent.

A. Laboratory Investigation

A.22/09/2017- Hb-14.7, Total W.B.C-4500, Platelet count-195000, Total R.B.C-5.03, M%-50, L%-45, E%-02, M%-03, B%-0, P.C.V.-43.7%, M.C.V.-86.9fL, M.C.H.-29.2pg, M.C.H.C.-33.6gm/dl, R.D.W.-13.9%, R.B.C.-Normocytic & Normochromic, Platelets-Adequate, Malarial Parasite: Not seen, E.S.R.-24mm/hr., F.B.S.- 105 mg/dl. **Lipid Profile-** S.cholesterol-148mg/dl, S.Triglyceride-140mg/dl, S.HDL-35mg/dl, S.LDL- 85mg/dl, S.VLDL-28mg/dl, Chol./HDL-4.2, LDL/HDL-2.4. **R.F.T.-S.** Creatinine-1.1mg/dl, S.Uric acid-4.8 mg/dl, S.Urea-19 mg/dl, S.Calcium-8.6 mg/dl, **L.F.T.-S.G.P.T.-** 37 U/l, S.TSH-2.30 Uiu/ml, Vit.B12-147pg/ml. **Urine Analysis (R & M)-Physical Exam.-** Volume-20ml, Colour-Pale Yellow, Transparency-Clear, Deposits-Absent. **Chemical Exam.-** Albumin-Trace, Sugar-Absent, Bile Pigment-Absent, Bile Salt-Absent, Ketone-Absent, pH-6, Spec.grav.-1.020. **Micro.Exam.-** Pus cells-2-3/hpf, R.B.C-4-5/hpf, Epi.Cells-1-2/hpf, T.Vaginalis- Absent, Yeast Cells-Absent, Cast-Absent, Crystals-Absent, Amorphous-Absent.

B. 31/10/2018- Hb-14.4gm/dl, Total W.B.C-10360/cmm, Platelet count-325000/cmm, Total R.B.C.-5.09, M%-58, L%-40, E%-01, M%-01, B%-0, P.C.V.-42.8%, M.C.V.-84.1 fL, M.C.H.-28.3pg, M.C.H.C.-33.6

gm/dl, R.D.W.-13.0%, R.B.S-98mg/dl. **L.F.T.-S.G.P.T.-** 22U/L, **R.F.T.-S.** Creatinine-1.02mg/dl, S.Uric acid-4.8 mg/dl, S.Urea-19 mg/dl. **Urine Analysis (R & M)-Physical Exam.-** Volume-20ml, Colour-Pale Yellow, Transparency-Clear, Deposits-Absent. **Chemical Exam.-** Albumin-Trace, Sugar-Absent, Bile Pigment-Absent, Bile Salt-Absent, Ketone-Absent, pH-6, Spec.grav.-1.007. **Micro. Exam.-** Pus cells-2-3/hpf, R.B.C-4-5/hpf, Epi. Cells-1-2/hpf, T.Vaginalis-Absent, Yeast Cells-Absent, Cast-Absent, Crystals-Absent, Amorphous-Absent. HBsAg-ELISA-Non-Reactive, HIV-ELISA-Non-Reactive, HCV-ELISA-Non-Reactive.

C.11/11/2018- Hb-13.9gm/dl, R.B.C count-4.67mil/cmm, Total W.B.C-12780/cmm, Platelet count-263000/cmm, M%-72, L%-25, E%-01, M%-02, B%-0, P.C.V.-40.2%, M.C.V.-86.1fL, M.C.H.-29.8pg, M.C.H.C.-34.6gm/dl, R.D.W.-13.1%.

D.10/11/2018- T3-0.90ng/ml, T4-7.83ug/dl, TSH-0.7300Piu/ml.

E.21/02/2019- Hb-14.9, Haematocrit-43.9-High, Total erythrocytes count-4.8, Total Leucocyte count-2500, Platelet count-2.2, M.C.V.-91.0, M.C.H.-30.8, M.C.H.C.-33.9, N%-46, L%-48, E%-2, M%-4, B%-0., F.B.S.- 85.2mg/dL, **L.F.T.-Total Bilirubin-Seum-** 0.4mg/dL, Direct Bilirubin-Serum-0.2 mg/dL, Indirect Bilirubin-Serum-0.2 mg/dL, Total Protein-Serum-7.6gm/dL, Albumin-Serum-4.5gm/dL, Globulin-Serum-3.1gm/dL, A/G Ratio-1.5%, SGOT/AST-26.4IU/L, SGPT/ALT-31.0IU/L, SGOT/SGPT Ratio-0.9%, Alkaline phosphate-Serum-273U/L. **Lipid Profile-** Cholesterol-Serum-212.3mg/dL, Triglyceride-Serum-112.8mg/dL, HDL cholesterol-Seum-60mg/dL, VLDL cholesterol-Serum-22.6mg/dL, LDLcholesterol-Serum-129.7mg/dL, Total cholesterol/HDL cholesterol Ratio-3.5%, LDL/HDL cholesterol. **R.F.T.-S.** Creatinine-1.0mg/dl, S.Uric acid-5.2 mg/dl, S.Urea-30 mg/dl. **Urine Analysis (R & M)- Physical Exam.-** Quantity-15ml, Colour-Pale Yellow, Deposit-Absent, Appearance-Clear. **Chemical Exam.-** pH-5.5, Spec. grav.-1.020, Protein-Absent, Sugar-Absent, Ketone-Absent, Blood-Absent, Bile Salts-Absent, Bile Pigm.-Absent. **Micro. Exam.** RBC-NIL, Pus cells-NIL, Epithelial cells-NIL, Crystals-Absent, Casts-Absent, Other-Absent.

B. Sigmoidoscopy(26/11/2017)

Rectum: Loss of Vascular Pattern, Mucosal Ulceration Present, Biopsy taken.

Recto Sigmoid: Same as Above.

Sigmoid Colon: Same as Above.

Impression: Biopsy taken to confirm Ulcerative colitis (IBD).

C. Histopathology report(23/11/2017)

Impression

1. Features are of Ulcerative colitis with activity and chronicity.

2. Negative for dysplasia or malignancy.

D.Colonoscopy report(21/05/2018)**Impression**

Ulcerative colitis.

E. Biopsy(01/11/2018)

Site-Sigmoid colon, Procedure Performed-Resection, Gross-Received multiple, Grey-white, Soft tissue bits, measuring 0.5 cm in all. Summary-1.Biopsy site-Colon, 2.Glandular Atrophy-Absent, 3.Metaplastic Changes-None, 4.Parasite-None, 5.Special features (Granuloma, foveolar hyperplasia, viral inclusions, and drug toxicity): Absent.

Diagnosis: Histology consistent with ulcerative colitis.

Differential Diagnosis: *Jeerna Raktaatisaara* (Ulcerative colitis), *Grahani* (IBS), *Pravahika* (Tenesmus), *Amlapitta* (Hyperacidity), *Vidagdhaajeerna* (Indigestion).

Provisional Diagnosis: *Jeerna Raktaatisaara* (Ulcerative colitis)

Final Diagnosis- *Jeerna Raktaatisaara* (Ulcerative colitis)

Management: Plan during Admission in IPD

Table no: 1. (Given during admission in IPD of P.G. Department of Kayachikitsa, NIA, Jaipur.)

A. Shodhana Chikitsa: Piccha Basti (Unctuous enema) During I.P.D. Admission: For 14 days (From 21/02/2019-08/03/2019) Contents of Piccha Basti⁸ 1. <i>Shalmali Vrinta Kashaya</i> (Decoction Preparation) 2. <i>Mahatiktaka Ghrita</i> (Medicated) 3. <i>Madhu</i> (Honey) 4. <i>Godugdha</i> (Cow's milk) 5. <i>Kalka dravya</i> (Paste Preparation)- <i>Manjishtha choorna, Mocharasa choorna, Lodhra choorna, Nagakeshara choorna, Yashtimadhu choorna, Rasaanjana choorna.</i> 6. Syringe-60ml, Catheter-8 No & Globes.	B. Shamana Chikitsa: Oral Drug Administration During I.P.D. Admission: For 14 days (From 21/02/2019-08/03/2019) Before Meals <i>Dadimaashtaka choorna</i> - 3gm <i>Akika Pishti</i> - 1 gm <i>Bilwa choorna</i> - 2gm Mixture of these drugs had taken as B.D. before meals with fresh butter. After Meals <i>Kutaja-Parpati Vati</i> - 2 Tab. B.D. <i>Syrup Kutaja Bilwa</i> -15ml TID. <i>Amadoshantaka Vati</i> - 2 Tab. B.D. <i>Gadhaka Vati</i> - 2 Tab. B.D.
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Method of preparation of piccha basti

1. First of all, unequal amount of *Mahatiktaka Ghrita* and *Madhu* were mixed properly.
2. *Kalka dravyas* (Paste) mixed with above preparation.
3. *Shalmalivrinta Kashaya* mixed with above preparation.
4. Lukewarm cow's milk mixed with above preparation.
5. Ratio of mixing of each drug (preparation) of *Piccha Basti* had described in below chart.

Procedure of administration of piccha basti

1. The procedure involves the *Poorva Karma, Pradhana Karma* and *Paschat Karma*.
2. *Pichha Basti* was given for 14 days.
3. Duration of *Pichha Basti* cycle 14 days depend on the severity of disease and *Bala* of the Patient.
4. Patient is explained about the *Pathya-Apathya Ahara-*

Vihara (Do's & Don'ts) before the *Basti* treatment.

I. Poorva karma (Early procedure)

It involves *Snehana* of abdomen, back, thigh and legs followed by *Nadi Sveda*.

II. Pradhana karma (Main procedure)

1. Patient is asked to lie down in the left lateral position.
2. *Sukhoshna Sneha* is applied in the anal region and on the *Basti Netra*.
3. *Basti Netra* is introduced gradually & patient is asked to breath in.
4. *Basti Dravya* is pushed into the rectum till a little quantity is remained in the *Putaka* (to prevent *Vayu* to enter into the *Pakvashaya*)
5. Withdraw the *Netra* gradually.

Schedule of piccha basti in accordance with ratio of each content.

Table no: 2

Method of Preparation & Procedure Plan for Piccha Basti:								
Day wise	Ghrita (Medicated)	Madhu (Honey)	Shalmalivrinta Kashaya (Decoction)	Kalka Dravyas (Paste)	Godugdha (Cow's Milk)	Matra (Total Amount)	Pratyagamana Kala (Holding Time)	Upadrava (Complication)
1 st	15 ml	10 ml	25 ml	25 ml	25 ml	100 ml	20 min.	No
2 nd	15 ml	10 ml	25 ml	25 ml	25 ml	100 ml	25 min.	No
3 rd	15 ml	10 ml	30 ml	25 ml	30 ml	110 ml	30 min.	No
4 th	15 ml	10 ml	30 ml	25 ml	30 ml	110 ml	27 min.	No
5 th	15 ml	10 ml	30 ml	25 ml	30 ml	110 ml	39 min.	No

6 th	20 ml	10 ml	45 ml	30 ml	35 ml	140 ml	32 min.	No
7 th	15 ml	10 ml	30 ml	25 ml	30 ml	110 ml	30 min.	No
8 th	15 ml	10 ml	30 ml	25 ml	30 ml	110 ml	41 min.	No
9 th	20 ml	10 ml	35 ml	25 ml	30 ml	120 ml	21 min.	No
10 th	20 ml	10 ml	35 ml	25 ml	30 ml	120 ml	41 min.	No
11 st	20 ml	10 ml	35 ml	25 ml	30 ml	120 ml	48 min.	No
12 nd	20 ml	10 ml	40 ml	25 ml	35 ml	130 ml	60 min.	No
13 rd	25 ml	15 ml	45 ml	30 ml	35 ml	150 ml	52. min.	No
14 th	30 ml	15 ml	55 ml	35 ml	45 ml	180 ml	55 min.	No

III. PASCHATA KARMA (POST PROCEDURE)

1. Patient is asked to keep lying for 3-4 mints for better absorption of drug from anal region.
2. Patient is advised to take light diet.

3. Patient is advised to avoid fast foods & spicy foods.

4. After completion of complete cycle patient is advised to follow the *Sansarjana Karma*.

A. Shamana chikitsa (Oral drug administration therapy)

Follow up period: 5 Months: Mentioned in Table no: 3.

1st Follow up Period: 11 days. (From 8/3/2019 to 18/3/2019) 1. <i>Dadimaashtaka churna</i> -3gm+ <i>Akika Pishti</i> -1gm+ <i>Bilwa churna</i> -2gm B.D. with fresh butter before meals. 2. Tablet <i>Kutaja Parpati</i> -2 B.D. after meal. 3. Syrup <i>Kutaja Bilwa</i> -15ml TID after meals. 4. <i>Bhrishtha Haritaki Churna</i> -3gm+ <i>Kala Tila</i> (Black sesame seeds)-3gm+ <i>Guda</i> (Jiggery)-5gm+ <i>Bilwa phalamajjaa churna</i> (<i>Aegel marmelos</i> powder)-2gm B.D. by chewing after meals.	4th Follow up Period: 42days. (From 2/5/2019 to 13/6/2019) 1. <i>Dadimaashtaka churna</i> -3gm+ <i>Panchamrita Parpati</i> -250mg+ <i>Akika Pishti</i> -1gm+ <i>Bilwa churna</i> -2gm TID with fresh butter before meals. 2. Syrup <i>Kutaja Bilwa</i> -15ml.TID after meals. 3. Tablet <i>Amadoshantaka</i> -2 B.D. after meals. 4. <i>Shatapushpa Churna</i> -2gm+ <i>Ajamodadi Churna</i> -2 gm B.D. after meals. 5. <i>Jatiphalaadi churna</i> -2gm B.D. after meals. 6. Tablet <i>Bowel care</i> -1B.D. after meals.
2nd Follow up Period: 20days. (From 19/3/2019 To 07/4/2019) 1. <i>Dadimaashtaka churna</i> -3gm+ <i>Panchamrita Parpati</i> -250mg+ <i>Akika Pishti</i> -1gm+ <i>Bilwa Churna</i> -2gm B.D. before meals with fresh butter. 2. Syrup <i>Kutaja Bilwa</i> -15ml TID after meals. 3. Tablet <i>Amadoshantaka</i> -2 B.D. after meals.	5th Follow up Period: 16days. (From 14/6/2019 to 30/6/2019) 1. <i>Dadimaashtaka churna</i> -3gm+ <i>Panchamrita Parpati</i> -250mg+ <i>Akika Pishti</i> -1gm+ <i>Bilwa Churna</i> -2gm B.D. with fresh butter before meals. 2. Tablet <i>Bowel care</i> -1B.D. after meals. 3. Syrup <i>Anarmix</i> -15ml B.D. after meals.
3rd Follow up Period: 24days. (From 08/4/2019 To 1/5/2019) 1. <i>Dadimaashtaka churna</i> -3gm+ <i>Panchamrita Parpati</i> -250mg+ <i>Akika Pishti</i> -1gm+ <i>Bilwa churna</i> -2gm,B.D. with fresh butter before meals. 2. Syrup <i>Kutaja Bilwa</i> -15ml TID after meals. 3. Tablet <i>Amadoshantaka</i> -2 B.D. after meals. 4. <i>Shatapushpa Churna</i> -2gm+ <i>Ajamodadi Churna</i> -2gm. B.D. after meals. 5. <i>Jatiphalaadi churna</i> -2gm B.D. after meals.	6th Follow up Period: 23 days. (From 1/7/2019 to 23/07/2019) 1. Tab. <i>Kutaja Ghana Vati</i> - 2 B.D. after meals. 2. <i>Dadimaashtaka churna</i> -2gm+ <i>Akika Pishti</i> -500mg+ <i>Bilwa churna</i> -2gm B.D. with fresh butter before meals. 3. Tablet <i>Bowel care</i> -2 B.D. after meal. 4. Syrup <i>Anarmix</i> -15ml OD after meal. 5. Tablet <i>Shatavari</i> - 2 B.D. after meal.

Diet: Patient was kept on *Pitta-Shamaka*, *Laghu*, *Grahi* and *Pathya* food.

Criteria: Table no: 4.

Inclusion Criteria	Exclusion Criteria
1. Signs and symptoms of <i>Raktatisara</i> (Ulcerative colitis). 2. Colonoscopy diagnosis of ulcerative Colitis.	1. Patient who had undergone surgeries. 2. Patient who had complications like Anal fistula, Anal fissure, Piles etc. 3. Patient with any other associated disease like Ascites, Hepatitis etc.

Single case with a classical picture of *Raktaatisaara* (Ulcerative colitis) was randomly selected irrespective of age, sex, and chronicity from the OPD and IPD of the National Institute of Ayurveda, Jaipur.

symptoms were given grade scores and assessed before as well as after treatment. Changes in haemoglobin, ESR, and body weight were also recorded before and after treatment. Reductions in the doses of steroid and sulfasalazine drugs were also recorded.

Duration of Clinical Trial including follow-up period:
5 Months.

Criteria for assessment

The improvement in the patients was assessed on the basis of relief in the signs and symptoms of the disease together with laboratory investigations. All the signs and

A) Grading on severity of disease: Table no: 5.

Symptoms and signs			
(1) Bowel frequency	Score	(2) Blood in stool	Score
1 or 2 times in a day	0	No bleeding	0
3 or 4 times in a day	1	Occasional bleeding in stool (not daily)	1
5 to 7 times in a day	2	Bleeding daily but less than 4 times in a day	2
8 to 12 times in a day	3	Bleeding daily and 4 to 8 times in a day	3
More than 12 times in a day	4	Bleeding daily and more than 8 times in a day.	4
(3) Abdominal pain	Score	(4) Weakness	Score
No pain	0	No weakness	0
Tolerable pain	1	Tolerable weakness	1
Mild pain	2	Mild weakness	2
Moderate pain	3	Moderate weakness	3
Severe pain	4	Severe weakness	4
(5) Red blood cells in stool	Score	(6) Pus cells in stool	Score
No RBC in stool	0	No pus cells in stool	0
Less than 15/hpf	1	Pus cells less than 15/hpf	1
16-30/hpf	2	Pus cells 16-30/hpf	2
31-50/hpf	3	Pus cells 31-50/hpf	3
Plenty or more than 50/hpf	4	Plenty or more than 50/hpf pus cells	4

Value of each score in proportion to percentage (%): Table no: 6.

A. Score (B.T.)	Severity Grading (%) (Signs & Symptoms)	B. Score (A.T.)	Improvement Grading (%) (Signs & Symptoms)
0	Absent (0%)	0	No Improvement (0%)
1	Mild (25%)	1	Mild Improvement (25%)
2	Moderate (50%)	2	Moderate Improvement (50%)
3	Severe (75%)	3	Better Improvement (75%)
4	Highly Severe (100%)	4	Completely Improvement (100%)

B.T. =Before Treatment, A.T. =After Treatment.

B.) RESULT

Improvement in disease: After *shodana* & *shamana chikitsa*: Table no: 7.

Signs and Symptoms	A. Score (B.T.)	B. Score (A.T.)	Difference (A.T.-B.T.)	Improvement (%)
(1) Bowel frequency	2	0	2	Moderate Improvement (50%)
(2) Blood in stool	3	0	3	Better Improvement (75%)
(3) Abdominal pain	3	0	3	Better Improvement (75%)
(4) Weakness	3	0	3	Better Improvement (75%)
(5) Red blood cells in stool	4	0	4	Completely Improvement (100%)
(6) Pus cells in stool	4	0	4	Completely Improvement (100%)

B.T. =Before Treatment, A.T. =After Treatment.

Plan of study and treatments

1. Performa compiled with detailed clinical history and physical examination of the patients.

2. Investigations like Hbg%, E.S.R.

3. Stool routine-Microscopy and colonoscopy.

After confirming the diagnosis, patient was given the

following treatment–

A) *Shodhana chikitsa*- *Pichchha Basti* for 14 days.

B) *Shamana chikitsa*- Mentioned below.

DISCUSSION

About *piccha basti*

A. *Charaka Samhita, Chikitsasthana-19, Atisarachikitsa*^[12]

1. *Ghrita* with one-fourth quantity of *Tila Taila* (Sasemum oil) cooked with *Shatapushpa*, *Shatavari*, *Madhuka*, *Bilwa* and milk should be used as unctuous enema. If after administering unctuous enema and undergoing dietetic regimens thereafter, diarrhoea is still there, then *Piccha Basti* (Slimy enema) should be applied.

2. The fresh leaves stalks of *Shalmali* should be wrapped around with fresh *Kusha* grass and plastered with black earth. This should be heated on cow-dung fire. When the outside earthen plaster is dried well, it should be brought down and the stalks of *Shalmali* are taken out. Then they are pounded in a mortar and a bolus of 40gm. Therefrom is pressed in boiled milk and filtered. Then it is mixed with 640gm. of *Tila* oil and *Ghrita* 640 gm. added with the paste of *Madhuka* in adequate quantity. This enema should be administered to the patient massaged beforehand. When the enema comes out, the patient, after bath, should take food with milk or meat-soup of wild animals (or birds). This enema, acting as evacuative as well as sustaining, overcomes quickly too advanced disorders of *Pittaja* diarrhoea, fever, oedema, *Gulma*, chronic diarrhoea and *Grahani* disorder.

3. In case a patient passes blood little but frequently and with pain and *Vayu* having obstruction does not move or move with difficulty, the aforesaid *Piccha Basti* (slimy enema) should be administered to him. Or unctuous enema of *Ghrita* prepared with *Prapaundarika* should be given.

B. *Susuruta Samhita, Uttarantra-40, Atisara pratishehdhadhyaaya*^[13]

1. Cold infusion prepared of petioles of *Shalmali* kept overnight should be taken after mixing with honey and *Yastimadhu*. The method of cold infusion is as follows: the powder of drugs is kept in equal quantity of water for a day and night, then after pressing the juice is strained through a piece of cloth 40 ml juice mixed with honey and *Madhuyashti* each 10 gm. Should be taken.

2. When the patient passes blood mixed in small amount with pain frequently and flatus is also obstructed, slimy enema is useful. *Piccha Basti*-Slimy enema, prepared of slimy plants-*Badari*, *Airavati*, *Shelu*, *Shalmali* etc. mentioned in the context of non-unctuous enema (Chi.Ch.38). *Acharya Jejjata*, however, says that slimy enema be prepared of *Kapittha*, *Shalmali* etc. plants to be mentioned hereafter after extracting their juice by the method of *Putapaka* and mixing it with milk. Or the

paste of *Kapittha* etc. may be mixed with plentiful milk and used as slimy enema.

3. *Piccha Basti* is named so because of its *Picchil* property which means it is sticky or lubricant. Because of this property it has ulcer healing effect.

Moreover, it is *Agnideepaka* and *Sangrahi* due to its contents.

Pichha basti- indications

Acharya Charaka has described *Piccha Basti* for the treatment of *Pravahika* (Dysentery), *Gudabhransha* (Rectal prolapse), *Raktasraava* (Bleeding per rectum) *Jwara* (Fever)^[14] *Pitta-Atisaara*, *Shotha* (Inflammation), *Gulma*, *Ajeerna* (Indigestion), *Atisaara* (Chronic diarrhoea) and *Grahani Dosha*.^[15] *Acharya Sushruta* has also given the similar indications of *Pichha Basti*.

This enema, acting as evacuative as well as sustaining, overcomes quickly too advanced disorders of *Pittaja Atisaara* (diarrhoea), *Jwara* (fever), *Shotha* (Oedema), *Gulma*, *Pravahika* (chronic diarrhoea) and *Grahani* (IBD) disorder.

When the patient passes blood mixed in small amount with pain frequently and flatus is also obstructed, slimy enema is useful. *Piccha Basti*-Slimy enema, prepared of slimy plants-*Badari*, *Airavati*, *Shelu*, *Shalmali* etc. mentioned in the context of non-unctuous enema (Chi.Ch.-38). *Acharya Jejjata*, however, says that slimy enema be prepared of *Kapittha*, *Shalmali* etc. plants to be mentioned hereafter after extracting their juice by the method of *Putapaka* and mixing it with milk. Or the paste of *Kapittha* etc. may be mixed with plentiful milk and used as slimy enema.

Probable mode of action of *poorva karma*

1. *Snehana* and *Svedana* prior to *Basti* do *Anulomana* of *Apaana Vayu* and thus, *Basti* becomes more efficacious.
2. *Abhyanga* also causes vasodilatation in skin and muscle by stimulating receptors of sympathetic nervous system. Vasodilatation increases blood flow and helps to remove toxins.

Probable mode of action of *pichha basti* (Unctuous enema)

Possible actions of *Piccha Basti*

1. *Shothahara* & *Vrana-Ropaka* (Anti- inflammatory & Ulcer-healing).
2. *Raktastambhaka* (Haemostatic agent).
3. *Sangrahi* / *Stambhan* (Anti-diarrhoeal & Anti-dysenteries).
4. *Pitta Shamaka*.
5. *Agnideepaka*.

(A) About *piccha basti* (Unctuous enema) and its each drug content: Ulcerative colitis is a disease of *Purishavaha Srotas* which is caused by *Pitta Pradhana Vata doshas*. Green *Shalamali* leaves stalks *Kwatha* has

properties of *Pitta-Vata shamana* and also *Vrana-Shodana* and *Ropana* which help in healing ulcers in the colon by *Basti Karma*.

IBD can be considered as *Grahani Dosha* in Ayurveda. According to Ayurveda, Ulcerative colitis is a disease of *Purishavaha Srotas*. It is primarily a disease of *Pitta dosha* with varying degrees of *Vata* involvement. The latter determines how extensively the inflammatory process will spread proximally and the development of extra intestinal manifestations. The excessive consumption of *Pittaja Ahara* and *Vihara* initially damages both *Rakta Dhatu* (blood tissue) and *Mamsa Dhatu* (muscle tissue), leading to formation of *Ama* that gets deposited between the villi in the intestines, forming a smooth coating that impairs the normal function and immunity of the intestines. *Vata Dosha* in the lower colon is also aggravated and in the early stages blocks the *Pitta* and *Kapha* channels, causing inflammation, mucous accumulation and oedema. The site of Ulcerative colitis is colon. The *Sthana* of *Vata Dosha* is *Pakwashaya* (colon). *Dosha* involved in ulcerative colitis is *Pitta dosha*, so we can infer that *Pitta* resides in *Vata sthana Pakwashaya*. Hence, tackle the *Sthanika dosha* first and followed by treating *Pitta dosha* and there is no treatment that is equal to *Basti* in treating *Vata dosha*. Through *Basti* one can treat *Eka Dosha*, *Samsarga* and *Sannipata* condition. In Ayurveda, *Raktatisara* is mentioned as an advanced stage of *Pittatisara*. *Piccha Basti* is mentioned as a management of *Raktatisara* in *Charaka Samhita*. *Piccha Basti* reduces inflammation due to its *Grahi*, *Deepana Dravyas* and *Picchila Guna*. Also, it improves the function of *Apana Vata*. *Samshamana Yogas*, along with the dietary modifications, gives the maximum benefit.

It also has *Stambhana* properties that help in reducing the bowel frequency and check bleeding.

1. Mahatiktaka ghrita (Medicated)^[16]: It has capacity to manage the diseases caused due to excessive *Pitta dosha*. It contains drugs of *Tikta Rasa* because that is responsible for pacifying *Pitta Dosh*, *Pittaja Vyadhi* and *Raktaja Vyadhi*. It is very useful for skin diseases such as Syphilis, Eczema, Leprosy, Erysipelas, Bleeding disorders, Bleeding piles and chronic ulcer etc. It provides relief from Rashes, Inflammation, Pain, Boils and any kind of pus discharge along with other symptoms. It is also effective in managing Bleeding disorders. It controls bleeding in piles, Colon ulcers, Peptic ulcer, Gastric and Duodenal ulcers.

2. Madhu (Honey): Experiments and studies on honey have shown that honey is Antiseptic, Antimicrobial, Antipyretic, Anti-inflammatory, Antiallergent, Antitoxic, Sedative, Laxative, Antianemic, Antioxidant, Healing & Cleansing (external and internal wounds & ulcers), Moisturizing and Blood-purifying. It promotes rehydration, easily digestible, stimulates immunity, and is beneficial for all types of skins diseases.^[17] Research

has also indicated that honey may possess anti-inflammatory activity and stimulate immune responses within a wound.^[18] *In vitro* studies of *H. pylori* isolates which cause gastritis have been shown to be inhibited by a 20% solution of honey. Even isolates that exhibited a resistance to other antimicrobial agents were susceptible. Unlike most conventional antibiotics, it has been reported that honey dose not lead to development of antibiotic-resistant bacteria, and it may be used continuously.^[19]

According to research-based reviews on honey, it has been shown to decrease the severity and duration of diarrhoea. Honey also promotes increased Potassium and water intake, which is particularly helpful when experiencing diarrhoea. Research that took place in Lagos, Nigeria suggests that honey has also shown the ability to block the actions of pathogens that commonly cause diarrhea.^[20]

3. Shalmali-vrinta kashaya (Decoction preparation of fresh & green stalks of leaves of *Salmalia malabarica*)^[21]: In Ayurveda, this plant is used for its various medicinal properties like– Aphrodisiac, Astringent, Stimulant, Tonic, Anti-diarrheal, Anti-dysentery, Anti-microbial and Anti-pyretic.

4. Mocharasa (Resin of *Salmalia malabarica*)^[22]: *Mocharasa*-reddish brown colored secondary metabolite in the form of exudate from Silk-Cotton Tree (*Salmalia malabarica*).^[23] *Mochrasa* is one among such drugs used as Haemostyptic agent in different formulations indicated in bleeding condition and its therapeutic uses are described in various Ayurvedic treatise. It can be used in bleeding disorders like Menorrhagia-bleeding uterine disorder, Hemoptysis, Influenza, Acute dysentery, Malena, Ulcers, Wound, Inflammation etc. due to its Astringent, Hemostatic, Demulscent, Cooling and binding properties.^[24] The drug which prevents the repeated excretion of stools is known as *Purishsangrahnaya*. It is mainly indicated in *Sannipatatisara* and *Grahani*. The Anti-diarrheal concept according to Ayurveda is based comprised of two terms of *Grahi* and *Sthambhana*. The drug which acts as appetizer and digestive while absorbing the fluids is known as *Grahi*. The *Grahi* and *Sangrahi dravya* are predominant in *Prithvi* and *Vayu mahabhutas*. Acharya *shushruta* pointed out *Vayu mahabhuta* is responsible factor for *Drava shoshana* while Acharya *Sharangdhara* consider *Ushna veerya* responsible for it.^[25] The drug which rectifies the vitiated blood and provides normalcy known as *Shonitasthapana* drugs that acts as Anti-hemorrhagic. Another term *Rudhira Samsthapana* that represents those drugs which act as nourishing and haemetenic.^[26]

5. Yashtimadhu (*Glycyrrhiza glabra*)^[27]: It has Anti-inflammatory, Analgesic, Anti-oxidant and ulcer healing properties. Licorice root contains triterpenoid saponins (4–20%), mostly glycyrrhizin, a mixture of potassium

and calcium salts of glycyrrhizic acid. Anti-ulcer properties of saponins have been reported.^[28] Principally glycyrrhizin reduces ROS generation which is the potent mediator of tissue inflammation. β -Glycyrrhizic acid is the major metabolite of glycyrrhizin has shown anti-inflammatory properties in different animal models.^[29]

6. Lodhra (*Symplocos racemosa*)^[30]: In Sanskrit, *Lodhra* is also known as *Rodhra* (*Rodhaka*) which literally means one which stops or arrests. This name is given due to its therapeutic efficacy to stop abnormal bleeding. Due to this property, it is used to normalize menstrual bleeding. It is effective medicine for *Raktapitta* or varieties of bleeding disorders and includes bleeding from Anus (*Guda*), Vagina (*Yoni*), *Nasika* (nose) etc.^[31] *Lodhra* is considered to have *grahi* property. *Grahi* means "enhancing absorption". The herbs which are *grahi*, help absorption in the colon as well as other parts of the body. Excess fluids are absorbed, making the body firm and strong. It improves the digestion and its *Grahi* property is helpful in problems like Diarrhoea, Abdominal inflammation, Intestinal paralysis and bowel complaints. It is considered the best herb for *Raktapitta*. *Raktapitta* including all kinds of bleeding disorders like Epistaxis (nasal haemorrhaging), Vaginal, Anal bleeding and piles. The reason for *Raktapitta* is high or aggravated *Pitta* in the blood which happens to people with dominant *Pitta dosha* or people who eat too much acidic food resulting in acidic pH of the body. The cool and light nature of *Lodhra* pacifies *Raktapitta* and alleviates haemorrhaging and all kinds of bleeding disorders. It constricts the smaller blood vessels, controlling bleeding. It is also a great medicine for anaemia.^[32] *Lodhra* is anti ulcerogenic and haemostatic. *bilva* is known to have antiinflammatory, antioxidant, and mast cell stabilizing effects along with protective effect in inflammatory bowel disease.^[33]

7. NAGAKESHARA (*Mesua ferrea*)^[34]: All the bleeding disorders occur due to the *Pitta* imbalance, It is mostly indicated in the bleeding disorders like piles, Menorrhagia, Metrorrhagia & Epistaxis because it pacifies the *Pitta* that maintains the heat imbalance. It cures excessive bleeding. It acts as Aphrodisiac and Haemostatic. Its main action is on the blood capillaries, due to its *Kashaya rasa* (astringent) and *Sheeta virya* (cool nature).^[35] The Anti-inflammatory and Anti-microbial properties of *Nagakesara* make it the perfect remedy for wounds and sores. It is also used in the treatment of rheumatism and scabies. Great haemostatic, various parts of this tree are used to stop bleeding and eventually heal the wounds. *Nagakesara* oil is especially used to reduce swelling and bring back the original texture of the skin. Xanthenes also possesses Antiulcer activity in albino rats by pyloric ligation method. Treated animals showed high ulceration, Hemorrhage and perforation while pretreated animals showed scattered hyperemia and occasional hemorrhage.

8. Rasanjana(Rasaut): Semi-solid preparation of *Berberis aristata*)^[36]: For preparing *Rasaut*, roots and lower stem of *Daruhaldi* (*Berberis aristata*) is cooked in water. The amount of water taken is sixteen times of *Daruhaldi* roots. It is cooked till water is reduced to one fourth. Then it is filtered and solution thus obtained is again cooked till it becomes semi-solid. This thickened preparation is dried, given a shape and stored for future use. It is used to cure Stomach infection, Piles, Ulcers, Fever, Constipation, Jaundice and Eyes related problems. The findings show that *Berberis aristata* possess an Anti-granuloma and Anti-inflammatory properties which helps to prevent pro-inflammatory receptor as well as mediators in an activated macrophage. Activated macrophages and chronic inflammation play a vital role in RA pathogenesis and inflammation ailments. The findings show that *Berberis aristata* helps to treat the inflammatory diseases.

9. Shatapushpa (*Anethum sowa*)^[37]: It helps to stimulate digestive fire (*Agni Deepaka*) and pacify *Pitta dosha* in body. It is used for treating Fever (*Jwara*), pacify both *Vata* and *Kapha dosha*, Wounds (*Varn*), Pain (*Shoola*) and all eye related disorders. *Deepana*-It is very beneficial for herb stimulating low digestive fire and it gives strength to digestive system. *Pachana*-It is very beneficial herb that helps to stimulate enzymes that helps to promote proper digestion. It is also very effective for treating digestive system related disorders. *Vatanulomaka*- It helps to pacify vitiated *Vata dosha* in body and it helps to maintain proper balance of *Vata dosha* in body and protect body from the risk of *Vata* related disorders. It is also good for treating both diarrhea and dysentery and it is also good for reducing pain related with diarrheal episodes. It helps to secrete bile and other digestive enzymes that are responsible for healthy digestion.

B) About *samshamana chikitsa* (Oral drug administration)

10. Kutaja parpati (*Holarrhena antidysenterica* + *Parpati*)^[38]: It contains *Kutaja twaka Choorna*, *Parpati*, *Shankha Bhasma* & *Musta choorna*. It acts as *Atisara* & *Pravahika nashaka* (Anti-diarrhoeal & Anti-dysenteric action) due to *Stambhana guna* thus, helps in reducing the bowel frequency as well as bleeding tendency.

11. Kutaja-bilwa Syrup ((*Holarrhena antidysenterica*+ *Aegel marmelos*)^[39]: Its *Grahi* action relieves the *Ama* in the body and also reduces the bowel frequency.

12. Dadimashtaka choorna^[40]: It relieves excessive *Pitta dosha* and *Ushna guna* in body. It also acts as *Atisara* & *Pravahika nashaka* (Anti-diarrhoeal & Anti-dysenteric action) due to *Stambhana guna* thus, helps in reducing the bowel frequency as well as bleeding tendency.

13. Akika pisti^[41]: It pacifies vitiated *Pitta dosha* & mental stress which is a contributing factor to the

disease. *Chakshushya* (improves eyesight), *Hridaya* (Cardiac Tonic), *Jivaniya* (Rejuvenative), *Kaphahara* (Anti-coughing), *Raktapittahara* (Cures bleeding diseases), *Raktavardhaka* (Nourishes blood), *Shvasahara* (Cure difficulty in breathing or Asthma), *Tridoshaghna* (Reduces *Vata-Pitta-Kapha*). Mainly *Pitta* and *Vata* are reduced but due to cool potency, *Kapha* increases a little bit), Antacid, Anti-inflammatory, Antioxidant, Antiulcer, Cardiotonic, Hemostatic, Ophthalmic.

14. *Amadoshantaka vati*^[42]: It is effective in Anorexia, Sprue, Dysentery, Diarrhoea, Blood induced diarrhea, Acidity.

15. *Gandhaka vati*^[43]: Mainly used in the diseases of digestive system like Loss of appetite, Indigestion or digestive impairment and dyspepsia. It is also useful in Abdominal gas, Bloating and Flatulence. *Rogadhikara* (drug of choice) is *Agnimandya*.

16. *Panchamrit parpati*^[44]: It is drug of choice and classical medicine in ayurveda for Diarrhoea, Dysentery, Mucous stool defecation, IBS, IBD, Gastric irritation, Indigestion. In ayurveda, it acts as *Kaphatahara* which pacify vitiated *Kapha* as well as *Vata dosha* due to *Deepana* and *Pachana* properties.

17. *Bhrishta haritaki (Terminalia chebulla)*^[45]: It is Astringent, Purgative, Rejuvenative, Tonic, Laxative, Expectorant, Anthelmintic. It is also useful in healing of wounds and scalds. It is used as gargle against inflammation of mucous membrane of mouth. It helps in smooth evacuation. It is an effective purgative and helps in removing toxins and fats from the body, resulting in their reduced absorption.

18. *Bilwa churna (Aegel marmelos)*^[46]: It balances *Vata* and *Kapha dosha* in the body. This herb helps to support a healthy digestive and respiratory system. It also maintains healthy cholesterol and blood glucose levels in the body. It is very effective in Ulcerative colitis, IBS, IBD, Diarrhea, Indigestion, Dysentery and Bowel infections.

20. *Ajamodadi churna*^[47]: It is used for the treatment of Rheumatoid arthritis, Sciatica, Backache and *Kapha* disorders. It has a potent Anti-inflammatory action. It reduces inflammation of joints and alleviates pain associated with joint disorders. It also induces digestion and expulsion of *Ama*. Therefore, it is also known as one of the best *Amapachaka*. It increases Appetite, improves digestion and reduces gas formation in the abdomen.

21. *Jatiphaladi churna (Myristica fragrans etc.)*^[48]: It is a powerful Anti-spasmodic, Astringent, Internal cleaner, Anti-Diarrheal, Anti-bleeding. It is used in Distaste, Indigestion, Loss of appetite, Malabsorption syndrome. In ayurveda, it acts as *Kaphavatahara*, *Deepana*, *Pachana*, *Vataanulomana*, *Srotoshodana*, *Kledahara*, *Shoolahara* and *Krimighna*.

According to Ayurveda, Ulcerative colitis is a disease of *Purishavaha srotas*. It is primarily a disease of *Pitta dosha* with varying degrees of *Vata* involvement. The latter determines how extensively the inflammatory process will spread proximally and the development of extra intestinal manifestations. The excessive consumption of *Pittaja Ahara* and *Vihara* initially damages both *Rakta Dhatu* (blood tissue) and *Mamsa Dhatu* (muscle tissue), leading to formation of *Ama* that gets deposited between the villi in the intestines, forming a smooth coating that impairs the normal function and immunity of the intestines. *Vata Dosha* in the lower colon is also aggravated and in the early stages blocks the *Pitta* and *Kapha* channels, causing inflammation, mucous accumulation and edema. The site of Ulcerative colitis is colon. The *Sthana* of *Vata Dosha* is *Pakwashaya* (colon). *Dosha* involved in ulcerative colitis is *Pitta dosha*, so we can infer that *pitta* resides in *Vata Sthana Pakwashaya*. Hence, tackle the *Sthanika Dosha* first and followed by treating *Pitta dosha*. There is no treatment that is equal to *Basti* in treating *Vata dosha*. Through *Basti* one can treat *Eka dosha*, *Samsarga* and *Sannipata* condition. In Ayurveda, *Raktatisara* is mentioned as an advanced stage of *Pittatisara*. *Piccha Basti* is mentioned as a management of *Raktatisara* in *Charaka Samhita*. *Piccha Basti* reduces inflammation due to its *Grahi*, *Deepana dravyas* and *Picchila guna*. Also, it improves the function of *Apana vata*. *Samshamana yogas*, along with the dietary modifications, gives the maximum benefit.

Ulcerative colitis is a chronic disease with recurrent symptoms and significant morbidity. The precise etiology of ulcerative colitis is not well understood but as told above the current hypothesis suggests its causes as Genetic Susceptibility, Defective Immune regulation, Exogenous factors (Infections by *Salmonella*, *Shigella*, *Campylobacter* etc.) and Environmental factors (Smoking, indiscreet use of antibiotics etc.). These factors cause T-cell activation in mucosa of rectum and colon followed by release of inflammatory cytokines such as IL-1, IL-6 & TNF. With mild inflammation, mucosa is erythematous and has a fine granular surface that resembles sandpaper. In more severe disease, the mucosa is hemorrhagic, edematous and ulcerated. According to Ayurveda vitiated *Pitta* and *Rakta* are responsible for inflammation and ulceration.

Based on the probable mode of action of *Piccha Basti* described above the role of *Piccha Basti* can be summarized as below:

I. *Raktastambhaka* theory

- Ingredients of *Piccha Basti* owing to their *Kashaya Rasa* and *Sheeta Veerya* act as *Raktastambhaka* (Haemostatic agent).
- *Pitta* is the dominating *Dosha* responsible for bleeding per anum. Because of *Madhura*, *Tikta* and *Kashaya Rasa* of the ingredients of *Piccha Basti* it act as *Pittashamaka*. So, it pacifies vitiated *Pitta Dosha* as well as *Rakta*.

II. Vranaropaka/shothahara action

- In ulcerative colitis, intestine gets inflamed and sensitized, when food passes through intestine and makes contact with its mucosa.
- *Basti* drugs reach up to the Rectum and Colon and form protective film over it, avoid friction over mucosa, inflammation subsides and mucosa becomes normal.
- Due to its different contents it has *Shothahara* and *Vranaropaka* property.

III. Agnideepaka action: From Ayurvedic point of view *Agnimandya* is the root cause of Ulcerative Colitis so *Agni Deepaka* property of *Pichha Basti* helps in breaking the pathogenesis of the disease.

IV. Sangrahi action: Simultaneously *Pichha Basti* also has *Sangrahi* property which reduces the bowel frequency and there will also be no loss of electrolytes and protein losing enteropathy.

CONCLUSION

Ulcerative colitis is a challenging medical problem. Its incidence is increasing due to unhealthy dietary habits. In modern medical science, though many remedies are available, like the use of Sulfasalazine and the other 5-ASA agents, Glucocorticoids, Anti-TNF Therapy, but they have many side-effects. Due to the nature of disease it results in degradation of health and disturbs the daily routine life of the patient thus, making him emotionally stressed. Based on the discussion, it can be said *Pichha Basti* is quite effective in treating Ulcerative colitis.

Based on the clinical signs and symptoms, the disease *Pravahika* can be correlated to IBD with ulcerative colitis. *Pravahika* is a disease with the involvement of *Kapha*, *Pitta* and *Vata* associated with *Agnimandya*. Hence, the line of treatment mainly includes *Pachana* and *Sangrahi dravya*. *Pichha Basti* reduces inflammation due to its *Grahi*, *Deepana dravyas* and *Picchila guna*. Also, it improves the function of *Apana Vata*. *Samshamana Yogas* and along with the dietary modifications, gives maximum relief.

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