"CONCEPTUAL STUDY ON PICCHA BASTI AND ITS POTENTIAL ROLE IN THE MANAGEMENT OF ULCERATIVE COLITIS: AN AYURVEDIC PERSPECTIVE OR OVERVIEW"

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ABSTRACT

"Ulcerative Colitis" (UC) is a chronic relapsing inflammatory bowel disease characterized by diffuse inflammation of the colonic mucosa, leading to bloody diarrhea, abdominal pain, urgency, and tenesmus. Although modern medicine provides effective therapies such as aminosalicylates, corticosteroids, immunomodulators, and biologics, long-term treatment is often associated with adverse effects, recurrence, and economic burden. Ayurveda does not describe Ulcerative Colitis as a single disease entity; however, its clinical manifestations resemble Rakta Atisara, Pravahika, Pittaja Grahani, and Pitta-Vata predominant disorders involving the Pakvashaya.Among Panchakarma procedures, Piccha Bastiis a unique therapeutic enema containing mucilaginous (Picchila) and hemostatic drugs. Classical texts advocate its use in disorders associated with bleeding, ulceration, and inflammation of the colon. The Picchila property protects the intestinal mucosa, while Kashaya and Madhura Rasa drugs promote wound healing and reduce inflammation. This conceptual review explores the Ayurvedic rationale, probable pharmacological mechanisms, and therapeutic potential of Piccha Basti in Ulcerative Colitis.

Keywords: Piccha Basti, Ulcerative Colitis, Rakta Atisara, Pravahika, Panchakarma, Ayurveda, Basti Karma.

INTRODUCTION

"Ulcerative Colitis" is a chronic inflammatory disease limited to the colonic mucosa. The incidence of inflammatory bowel disease has increased rapidly in Asian countries, including India. The disease significantly affects quality of life due to recurrent abdominal pain, rectal bleeding, diarrhea, fatigue, and nutritional deficiencies.Current treatment primarily aims to suppress inflammation and maintain remission. However, prolonged use of corticosteroids and biologics may predispose patients to infections, osteoporosis, metabolic disturbances, hepatotoxicity, and increased healthcare costs.Ayurveda approaches disease through restoration of Dosha equilibrium, Agni correction, Ama elimination, and tissue healing. The symptoms of Ulcerative Colitis correlate with Rakta Atisara, Pittaja Atisara, Pravahika, and Pittaja Grahani. In these conditions, aggravated Pitta and Vata predominantly affect the Pakvashaya, leading to mucosal erosion and bleeding.Among Panchakarma therapies, Basti is regarded as the supreme or the prime treatment modality for disorders of the lower gastrointestinal tract.Piccha Basti specifically provides mucosal protection, hemostatic action, anti-inflammatory activity, and tissue regeneration.

AIM:

To review the conceptual basis and probable mechanism of action of Piccha Basti in the management of Ulcerative Colitis.

OBJECTIVES:

- To correlate Ulcerative Colitis with Ayurvedic disease entities.
- To review the classical indications of Piccha Basti.
- To understand the probable mechanism of action of Piccha Basti.
- To identify future research opportunities.

AYURVEDIC CORRELATION

The symptom complex of Ulcerative Colitis resembles:

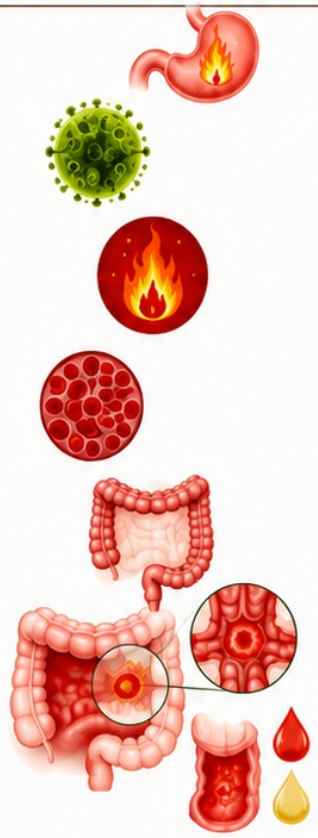
- Rakta Atisara
- Pravahika
- Pittaja Grahani
- Pitta-Vata predominant Atisara
- Pakvashayagata Vata associated with Rakta Dushti

The pathogenesis involves(Samprapti Formation):

AYURVEDIC PATHOGENESIS OF PRAVAHIKA / RAKTA ATISARA

NIDANA

- Viruddha Ahara
- Ati Amla Ahara
- Katu Ahara
- Alcohol
- Stress
- Irregular food habits



AGNIMANDYA → Due to causative factors, digestive fire becomes weak.

AMA FORMATION → Weak Agni leads to incomplete digestion and formation of Ama (toxic, undigested material).

PITTA PRAKOPA → Ama acts with Pitta and vitiates it.

RAKTA DUSHTI → Vitiated Pitta contaminates Rakta (blood).

PAKVASHAYA INVOLVEMENT → Dushta Pitta and Rakta involve Pakvashaya (large intestine / colon).

ULCERATION AND BLEEDING → Inflammation leads to ulceration of intestinal mucosa and bleeding.

PRAVAHIKA / RAKTA ATISARA → Manifestation as dysentery with blood and mucus, abdominal pain, tenesmus, frequent bowel movements.

IS IT SIMILAR TO ULCERATIVE COLITIS?

Yes, Ayurvedic entity of **Pravahika / Rakta Atisara** closely resembles Ulcerative Colitis in many aspects.

Both conditions involve inflammation and ulceration of the colon with bleeding and mucus in stool.

Ayurvedic Concept	Pathology	Ulcerative Colitis Parallel
Agnimandya & Ama	Impaired digestion, toxins	Dysbiosis, impaired barrier, toxins
Pitta Prakopa	Inflammation	Mucosal inflammation
Rakta Dushti	Bleeding tendency	Ulceration, bleeding
Pakvashaya Involvement	Colon affected	Colon (continuous involvement)
Ulceration & Bleeding	Mucosal damage	Ulceration, bloody diarrhea

Thus, the Ayurvedic understanding of **Pravahika / Rakta Atisara** is highly comparable to the modern concept of Ulcerative Colitis, especially in pathogenesis and clinical manifestation.

Piccha Basti in Classical Ayurveda:

Classical Ayurvedic texts recommend Piccha Basti for the management of conditions characterized by inflammation, ulceration, bleeding, and excessive bowel movements. It has traditionally been indicated in disorders such as Rakta Atisara (bloody diarrhoea), Pravahika (dysenteric syndrome), Pittaja disorders, bleeding conditions, ulcerative lesions, and diseases affecting the large intestine.

The formulation of Piccha Bastiprimarily consists of herbs and substances possessing Picchila Guna(mucilaginous property), Kashaya Rasa(astringent taste), Madhura Rasa(sweet taste), Sheeta Virya(cool potency), Grahi (absorbent action), Stambhana(haemostatic action), and Vranaropana (wound-healing) properties. These pharmacodynamic attributes work synergistically to soothe the inflamed intestinal mucosa, control excessive bowel movements and bleeding, strengthen the intestinal lining, and facilitate mucosal repair and healing.

The therapeutic rationale of Piccha Bastiis based on the collective pharmacodynamic properties of its constituent ingredients rather than on properties explicitly attributed to the formulation itself in the classical texts. Ingredients such as ??lmali(Bombax ceiba), Ya??imadhu (Glycyrrhiza glabra), Mocharasa, Padmakesara, Candana(Santalum album), andUtpala(Nymphaea stellata) are described in classical Dravyagunaliterature as possessing Picchila Guna, Kashaya and Madhura Rasa, Sheeta Virya, and therapeutic actions including Grahi, Stambhana, and Vranaropana. Collectively, these pharmacodynamic attributes provide the classical basis for the use of Piccha Basti in conditions associated with intestinal inflammation, ulceration, bleeding, and excessive bowel movements. From an Ayurvedic perspective, these properties are traditionally understood to promote haemostasis, reduce inflammation, protect the intestinal mucosa, enhance stool consistency, and facilitate mucosal healing and tissue repair.

Probable Mode of Action of Piccha Basti:

1. ***Formation of a Protective Mucosal Barrier:***

   The Picchila (mucilaginous) nature of the formulation may form a protective coating over the ulcerated colonic mucosa, thereby reducing mechanical irritation, minimizing faecal trauma, and facilitating epithelial regeneration.

2. ***Anti-inflammatory Activity:***

   The constituent herbs possess phytochemicals with demonstrated anti-inflammatory and antioxidant properties, which may help suppress inflammatory mediators, reduce oxidative stress, and attenuate mucosal inflammation.

3. ***Haemostatic Effect:***

   Drugs predominantly possessing Kashaya Rasaand Stambhana properties may aid in controlling rectal bleeding by promoting haemostasis and supporting the healing of damaged mucosal blood vessels.

4. ***Promotion of Mucosal Healing:***

   Several ingredients exhibit Vranaropana(wound-healing) activity and have been reported to enhance fibroblast proliferation, collagen synthesis, epithelial regeneration, and tissue repair.

5. ***Restoration of Intestinal Barrier Function:***

   By promoting mucosal healing and reducing inflammation, Piccha Bastimay help restore epithelial integrity, decrease intestinal permeability, and improve barrier function.

6. ***Targeted Local Drug Delivery:***

   Administration through the rectal route enables direct delivery of the therapeutic formulation to the diseased colon, ensuring prolonged mucosal contact, higher local drug concentration, and reduced systemic exposure.

7. ***Potential Modulation of Gut Microbiota:***

   Although direct clinical evidence is limited, improvement in mucosal integrity may favour restoration of a healthy gut microbial environment and contribute to intestinal homeostasis.

Modern Scientific Basis:

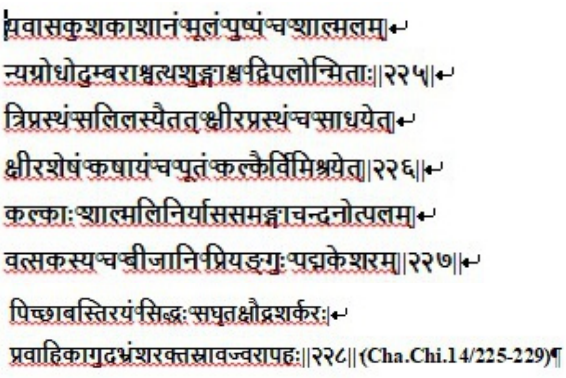
Experimental studies have shown that several medicinal plants commonly used in Piccha Bastiformulations possess anti-inflammatory, antioxidant, antimicrobial, mucoprotective, wound-healing, and immunomodulatory activities. These pharmacological properties may complement the classical Ayurvedic actions of the formulation and provide a plausible scientific basis for its role in promoting mucosal healing in Ulcerative Colitis.

Probable Mode of Action of Piccha Basti in Ulcerative Colitis:

"Ulcerative Colitis" is manifested by chronic inflammation, recurrent injury of the mucosa, and impaired intestinal barrier function. According to Ayurveda, the treatment of the disease is aimed at eliminating the causative Dosha, restoring the integrity of the mucous membrane and the integrity of the intestinal barrier. Piccha Bastiseems to be a promising tool for the treatment of ulcerative colitis because various components of this formulation have a pharmacological effect on the mechanisms involved in the development of the disease. In particular, the application of Picchila Gunaallows for protecting the damaged mucosa from additional irritation, thus facilitating the healing process. Kashaya Rasaand Stambhana properties help to reduce rectal bleeding and oedema of the colon mucosa, while Madhura Rasaimproves the nutrition of the affected tissues and promotes their regeneration. Moreover, the local administration of this medicament directly to the affected area of the intestine is appropriate because it allows for a more targeted impact on the

inflamed tissues and, consequently, a more effective therapeutic effect. In addition, this method of treatment is versatile since it can be used in both acute and chronic forms of ulcerative colitis. Therefore, on the basis of this evidence, it is possible to suggest that Piccha Basti can be beneficial for patients with ulcerative colitis in reducing inflammation, healing mucosal ulcers, and strengthening the intestinal barrier.

Method of Preparation and Ingredients used in the making of Piccha Basti:


प्रवासकुशकाशानांमूलंपुष्पंचशाल्मलम्।↵
न्यग्रोधोदुम्बराश्वत्थशुङ्गाश्चद्विपलोन्मिताः॥२२५॥↵
त्रिप्रस्थंसलिलस्यैतत्क्षीरप्रस्थंचसाधयेत्।↵
क्षीरशेषंकषायंचपूतंकल्कैर्विमिश्रयेत्॥२२६॥↵
कल्काःशाल्मलिनिर्याससमङ्गाचन्दनोत्पलम्।↵
वत्सकस्यचबीजानिप्रियङ्गुःपद्मकेशरम्॥२२७॥↵
पिच्छाबस्तिरयंसिद्धःसघृतक्षौद्रशर्करः।↵
प्रवाहिकागुदभ्रंशरक्तस्रावज्वरापहः॥२२८॥(Cha.Chi.14/225-229)¶

Ingredients:

Two Palas each of Yavāsa, Kuśa, Kāśa, flowers of semul and adventitious roots of Nyagrodha, Udumbara and Aśvatha should be added in six Prasthas of water, two Prasthas of milk and boiled till two Prasthas remain. This should be strained through a cloth, and to this, the paste of the resin from Śālmali (Mocarasa), Mañjistha, Candana, Utpala, seeds of Kutaja, Priyangu and Padmakesara should be added. This effective recipe is called Picchā Basti and it should be added with ghee, honey and sugar as Āvāpa Dravya.

Indications:

It cures dysentery, prolapsed rectum, bleeding per rectum and fever.

Therapeutic Rationale and Future Perspectives of Piccha Basti in Ulcerative Colitis:

'Ulcerative colitis' is characterized by chronic inflammation, recurrent mucosal injury, and disruption of the intestinal barrier. From an Ayurvedic perspective, the management of such conditions aims to restore **Doshae**quilibrium, preserve intestinal integrity, and promote mucosal healing. In this context, **Piccha Basti** represents a rational therapeutic approach, as the pharmacodynamic properties of its constituent drugs correspond closely to the underlying pathological changes observed in ulcerative colitis. **The Picchila Guna i**s believed to form a protective coating over the inflamed colonic mucosa, thereby reducing mechanical irritation and facilitating epithelial repair. **The Kashaya Rasa** of the formulation may help control rectal bleeding and excessive mucosal exudation through its **Stambhana action**, while **Madhura Rasa** supports tissue nourishment and regeneration. Furthermore, rectal administration enables direct delivery of the therapeutic formulation to the diseased colon, allowing prolonged local contact with the affected mucosa and potentially enhancing local therapeutic efficacy while minimizing systemic exposure.

Although the classical rationale and emerging experimental evidence provide a promising basis for the use of Piccha Basti in ulcerative colitis, high-quality clinical evidence remains limited. Well-designed randomized controlled trials with adequate sample sizes are required to establish its efficacy and safety. Future studies should incorporate validated disease activity indices, endoscopic and histopathological assessments, inflammatory biomarkers such as C-reactive protein (CRP), erythrocyte sedimentation rate (ESR), and faecal calprotectin, along with patient-reported quality-of-life measures, to comprehensively evaluate the therapeutic potential of Piccha Basti in ulcerative colitis.

FUTURE RESEARCH RECOMMENDATIONS

Despite the promising therapeutic rationale of Piccha Basti in ulcerative colitis, several areas warrant further investigation to strengthen the existing evidence base. Future research should focus on

- **Standardization of Piccha Basti formulations,** including the optimization of ingredients, dosage, preparation methods, and quality control parameters to ensure reproducibility across studies.
- **Mechanistic Studies** to elucidate the effects of Piccha Basti on mucosal barrier restoration, epithelial regeneration, inflammatory signaling pathways, and immune modulation.
- **Microbiome-based investigations** to explore its potential influence on gut microbial composition, microbial metabolites, and host-microbiota interactions.
- **Well-designed multicentre randomized controlled trials** with adequate sample sizes to establish the efficacy and safety of Piccha Basti in comparison with standard medical therapy.
- **Comparative effectiveness studies** evaluating Piccha Basti alongside conventional therapies, such as mesalamine, either as a standalone intervention or as an adjunctive treatment.
- **Comprehensive biomarker-based outcome assessments,** incorporating inflammatory markers (C-reactive protein, erythrocyte sedimentation rate, and faecal calprotectin), endoscopic and histopathological findings, and validated disease activity indices.
- **Long-term follow-up studies** to evaluate sustained clinical remission, relapse rates, safety, tolerability, and patient-reported quality-of-life outcomes.

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CONCLUSION

Piccha Basti represents a promising Ayurvedic therapeutic intervention for the supportive management of ulcerative colitis, owing to the collective pharmacodynamic properties of its constituent drugs, including mucosal protection, anti-inflammatory, haemostatic, wound-healing, and Vata-Pitta pacifying actions. The classical indications of Piccha Basti in conditions such as Rakta Atisara and Pravahikaprovide a strong Ayurvedic rationale for its application in ulcerative colitis. Emerging experimental evidence further suggests that its constituent herbs possess pharmacological activities that may contribute to mucosal healing and restoration of intestinal barrier function. However, the current clinical evidence remains limited. Well-designed, adequately powered randomized controlled trials incorporating standardized formulations, validated clinical outcomes, endoscopic and histopathological assessments, inflammatory biomarkers, and long-term follow-up are essential to establish the efficacy, safety, and therapeutic role of Piccha Basti. Such evidence may facilitate its integration as an evidence-informed supportive therapy within contemporary multidisciplinary management strategies for ulcerative colitis.

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