

## TRADITIONAL MANAGEMENT OF ULCERATIVE COLITIS WSR TO ATISAR CHIKITSA : A CRITICAL REVIEW

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### ABSTRACT

The two major types of Inflammatory Bowel Disease (IBD) are Ulcerative colitis and Crohn's disease. Ulcerative colitis is an idiopathic disease which probably involves an immune reaction of the body to its own gastro-intestinal tract. It is a disease of the colon that presents as characteristic ulcers while the main symptom of active disease usually being constant diarrhoea mixed with blood with a gradual onset. Contemporary treatment involves its consideration as an autoimmune disease and administration of anti-inflammatory drugs, immuno-suppression and biological therapy targeting specific components of the immune response.

*Ayurved* quotes several clinical conditions viz. *Paittik atisara*, *Raktaja atisara*, *Shokaja atisara*, *Raktaja pravahika* having symptoms that bear a resemblance to ulcerative colitis. This paper critically reviews the contemporary aspects of ulcerative colitis w.r.t. its aetiology, clinical features and management. It also endeavours to express a congruence of the disease with *Atisara* and recommends its *samanyachikitsa* taking into consideration *Sama* and *Nirama awastha*. Therapies such as *Picchha basti*, *Anuvasan basti* followed by *Shaman chikitsa* with *Sangrahi dravyas* having *Madhur*, *Sheeta* and *Kashaya* properties are advocated in accordance with the classical references as also external therapies of *Parishechanam*, *Guda prakshalan* and *Pichu*.

**Keywords-** *Atisara Chikitsa*, Irritable Bowel Disease, *RaktajaPravahika*, Ulcerative Colitis,

### INTRODUCTION:

Ulcerative colitis is an idiopathic disease, probably involving an immune reaction of the body to its own gastro-intestinal tract. The two major types of inflammatory bowel disease (IBD) are Ulcerative colitis and Crohn's disease.(1) It has an incidence of 1 to 20 cases per 1,00,000 individuals per year and a prevalence of 8 to 24 per 10,000

individuals.(2) The incidence of IBD is rising in Northern India where previously it was thought to have low incidence.(3) The highest mortality is during the first year of disease and in long duration disease due to risk of colon cancer.(3) Peak age of onset is between 15 to 30 years whereas the male to female ratio is 1:1(3). Ulcerative colitis is an inflammatory disease of the bowel affecting

the superficial lining mucosa in the rectum and large intestine. The disease typically starts from the rectum and continues through the large bowel sparing the deeper layer of the intestinal wall.(4) The disease may be triggered in a susceptible person by environmental factors. Although dietary modification may reduce the discomfort of a person with the disease, ulcerative colitis is not thought to be caused by dietary factors.

**Aetiological factors:** There are no direct known causes for Ulcerative colitis, but there are many possible factors such as genetics and stress. There is much evidence which indicates vitamin D deficiency, including lack of sunlight and dietary deficiencies as a major cause of Ulcerative colitis. A genetic component to the aetiology of Ulcerative colitis can be hypothesized based on the following (5) aggregation of Ulcerative colitis in families where Identical twin concordance rate of 10% and dizygotic twin concordance rate of 3%(6) is found.

1. **Genetic markers and linkages:** The disorder arises from the combination of multiple genes. For example, chromosome band 1p36 is one such region thought to be linked to inflammatory bowel disease.(8) There may even be human leucocyte antigen associations at work. In fact, this linkage on chromosome 6 may be the most convincing and consistent of the genetic candidates.(8)**Environmental factors:** Many hypotheses have been raised for environmental contributors to the pathogenesis of Ulcerative colitis. viz.  
**Diet:** As the colon is exposed to many dietary substances which may encourage inflammation, dietary factors have been hypothesized to play a role in the

pathogenesis of both Ulcerative colitis and Crohn's disease. A few studies have been conducted to investigate such an association, wherein one study revealed no association of refined sugar on the prevalence of Ulcerative colitis.(9) However high intake of unsaturated fat and vitamin B6 may enhance the risk of developing Ulcerative colitis.(10) Other identified dietary factors that may influence the development and/or relapse of the disease include meat protein and alcoholic beverages.(11) Specifically, sulphur has been investigated as being involved in the aetiology of Ulcerative colitis but this is controversial.(12) Sulphur restricted diets have also been investigated in patients with Ulcerative colitis and animal models of the disease. The theory of sulphur as an aetiological factor is related to the gut microbiota and mucosal sulphide detoxification in addition to the diet.(13)

2. **Genetic factors:** Poor nutrition is suspected as a leading cause, commonly caused by vitamin D deficiency. Similarly, there have been conflicting reports of the protection of breastfeeding in the development of inflammatory bowel disease. One Italian study showed a potential protective effect.(14) Several scientific studies have posted that Accutane is a possible trigger of Crohn's disease and Ulcerative colitis in some individuals. Three cases in the United States have gone to trial so far with additional 425 cases pending (15)
3. **Autoimmune disease:** Ulcerative colitis is an autoimmune disease characterized by T-cells infiltrating the colon.(16) In contrast to Crohn's disease which can affect areas of the gastro-intestinal tract

outside the colon, Ulcerative colitis usually involves the rectum and is confined to the colon with occasional involvement of the ileum. This so-called "backwash ileitis" can occur in 10–20% of patients with pancolitis and is believed to be of little clinical significance.(17) Ulcerative colitis can also be associated with co-morbidities that produce symptoms in many areas of the body outside the digestive system. Surgical removal of the large intestine often cures the disease.(18)

It is the result of an abnormal response by the body's immune system. Normally, the cells and proteins that make up the immune system protect from infection. In people with IBD, however, the immune system mistakes food, bacteria and other materials in the intestine for foreign or invading substances. When this happens, the body sends leucocytes into the lining of the intestines, where they produce chronic inflammation and ulcerations. The difference between Ulcerative colitis and Crohn's disease is that the latter can affect any part of the gastro-intestinal (GI) tract but Ulcerative colitis affects only the colon. Additionally, while Crohn's disease can affect all layers of the bowel wall, Ulcerative colitis only affects the lining of the colon. While both Ulcerative colitis and Crohn's disease are types of Inflammatory Bowel Diseases (IBD), they are different from Irritable Bowel Syndrome (IBS), a disorder that affects the muscle contractions of the colon as it is not characterized by intestinal inflammation.

Clinical features:

The hallmark symptoms of Ulcerative colitis are intermittent bloody diarrhoea, rectal urgency, tenesmus and the sensation of incomplete evacuation despite an empty rectal vault. Proctitis is also associated.(19)

The clinical presentation (20) of Ulcerative colitis depends on the extent of the disease process. Patients usually present with diarrhoea mixed with blood and mucus, with a gradual onset that persists for an extended period (weeks). They may also have weight loss and blood on rectal examination. The inflammation caused by the disease along with chronic loss of blood from the GI tract leads to increased rates of anaemia. The disease may be accompanied with different degrees of abdominal pain, from mild discomfort to painful bowel movements or painful abdominal cramping with bowel movements. Ulcerative colitis is associated with a general inflammatory process that affects many parts of the body. Sometimes these associated extra-intestinal symptoms are the initial signs of the disease, such as painful arthritic knees in a teenager and may be seen in adults also. The presence of the disease may not be confirmed immediately, however, until the onset of intestinal manifestations.

Classification of Ulcerative colitis

The disease is normally continuous from the rectum upwards to the colon and is classified by the extent of involvement, depending on how far it extends :

- a. Distal colitis: Involvement of the distal part of the colon and is potentially treatable with enemas (21)
- b. Proctitis: Involvement limited to the rectum .
- c. Proctosigmoiditis: Involvement of the rectosigmoid colon, the portion of the colon adjacent to the rectum.

d. Left-sided colitis: Involvement of the descending colon, which runs along the patient's left side, up to the splenic flexure and the beginning of the transverse colon.

e. Extensive colitis: Inflammation extends beyond the reach of enemas.

f. Pancolitis: Involvement of the entire colon extending from the rectum to the caecum.

In addition to the extent of involvement, patients may also be characterized by the severity of their disease.(21)

Mild disease correlates with fewer than four stools daily, with or without blood, no systemic signs of toxicity and a normal erythrocyte sedimentation rate (ESR) or C-reactive protein (CRP). There may be mild abdominal pain or cramping. Patients may believe they are constipated when in fact they are experiencing tenesmus, which is a constant feeling of the need to empty the bowel accompanied by involuntary straining efforts, pain, and cramping with little or no fecal output. Rectal pain is uncommon.

Moderate disease correlates with more than four stools daily, but with minimal signs of toxicity. Patients may display anaemia (not requiring transfusions), moderate abdominal pain and low grade fever, 38 to 39 °C (100 to 102 °F).

Severe disease correlates with more than six bloody stools a day or observable massive and significant bloody bowel movement and evidence of toxicity as demonstrated by fever, tachycardia, anaemia or an elevated ESR or CRP.

Fulminant disease correlates with more than ten bowel movements daily, continuous bleeding, toxicity, abdominal tenderness and

distension, blood transfusion requirement and colonic dilation (expansion). Patients in this category may have inflammation extending beyond just the mucosal layer, causing impaired colonic motility and leading to toxic megacolon. If the serous membrane is involved, colonic perforation may ensue. Unless treated, fulminant disease leads to death.

Pathological investigations

1. Laboratory Tests- Laboratory tests are of value in assisting with the management of IBD but are of minimal help in establishing the diagnosis. Stool studies, CBC with ESR, CRP can be useful to establish the markers of inflammation. Hypoalbuminaemia may reflect protein losing enteropathy.

2. Imaging-Barium enema, Colonoscopy and other studies such as CT scan, flexible sigmoidoscopy are most valuable tools for diagnosis and treatment.(22)

Contemporary Treatment of Ulcerative colitis

Contemporary treatment is meted out with anti-inflammatory drugs, immunosuppression and biological therapy targeting specific components of the immune response. Surgical intervention may also be required.eg.Colectomy (partial or total surgical removal of the large intestine) is occasionally necessary if the disease is severe, does not respond to treatment or if significant complications develop. A total proctocolectomy (surgical removal of the entire large intestine and rectum) can cure Ulcerative colitis though extra-intestinal symptoms may remain. Besides, it may be associated with complications. (23)

Traditional co-relation of Ulcerative Colitis

Symptoms	<i>Paittik atisara</i>	<i>Raktaj atisara</i>	<i>Adhogat raktapitta</i>	<i>Raktaj pravahika</i>	<i>Shokaj Atisara</i>

Diarrhoea	*	*		*	*
Rectal Bleeding	*	*	*	*	*
Tenesmus				*	
Passage of mucus				*	
Crampy abd. pain				*	
Proctitis				*	
Urgency				*	
Feeling of incomplete evacuation				*	

In Ayurvedic Classics the following clinical condition show some correlation with the disease i.e. IBD. *Raktapitta, Paittik atisara, Shokaj atisara, Raktajatisara, RaktajPravahika, Sannipatika atisara*. Table:1

The following contemporary terms show a simulation to certain *Ayurvedic* terminology viz.

Diarrhoea : *Atisara*

Rectal bleeding : *Gudenraktapravritti*

Tenesmus : *Pravahana*

Passage of mucous : *Guden kapha pravritti*

Proctitis : *Gudapaka*

Urgency with incomplete evacuation feeling: *Krite api akrit sangya*

Though the hallmark symptom of the disease-bloody diarrhoea is found in all above mentioned clinical conditions but the majority of other associated symptoms eg. tenesmus, passage of mucus, urgency and feeling of incomplete evacuation suggest that *Raktajpravahika* is more likely a clinical condition which can be compared with Ulcerative colitis from an Ayurvedic point of view. Though an acute Ulcerative colitis with only a symptom of bloody diarrhoea can be compared with *Raktaj Atisara* it is therefore difficult to compare Ulcerative colitis with a single disease in *Ayurved* because sometimes it does not present itself with all the classical symptoms.

Treatment: From *Ayurvedic* perspective, in the management of Ulcerative colitis, the

general principle of *AtisaraChikitsa* should be followed. Though many a times it seems to be compared to *Raktajpravahika* even though considering *pravahika* as an *awastha*(stage) of *atisara* it should be treated on the lines of *atisara*. One of the most important part of the management is to analyse the clinical condition as *sama* or *nirama* as it is clearly mentioned in the classics that *sama atisara* or *pravahika* should not be stopped.If *stambhan* is given in *sama awastha* then it causes other diseases like *dandalasak, adhman, grahani, sophia and pandu*. (24)

The three principles of management for *samaatisara* are *DOSHAVASECHANAM* for *rprabhoota*(excessive) *doshas*, *DEEPAN - PACHAN* for *madhyamdosha*, where *pramathya* is the *pathya* of choice and *LANGHAN* for *alpadosha*.(25) When the *nirama awastha* is achieved, *sangrahidravya* administration after analyzing the *doshik* involvement in the clinical condition is preferred.

*Shodhan chikitsa*

*Pichcha basti*: One of the most important therapies for the management of *RaktajAtisara* and *Pravahika* is *pichchabasti*. *Charak* has mentoned a

clinical condition where a patient of diarrhoea passes stool with tenesmus and profuse bleeding wherein *pichcha basti* is very useful.(26)

*Anuvasan Basti* with *Prapundrikadi tailam*(26) is equally useful.

*Shaman* :

*Sangrahi* medicines: *Dravyas* having *madhur, sheeta, kashaya* properties. Various *shaman yogas* like *Nilotpaladiyoga*,(27) *Shatavarikalka*(28), *Kutaj Vatak*(29) *Darvyadighritam*(30) are also useful.

DIET:

1. *Raktashali* (31)

2. Goat milk (32)

3. Meat: *Paravat*(pigeon) *shasha* (rabbit) which is fried in ghee.(32)

4. *Dadima*(pomegranate)(32)

5. *Navneet*:butter (from cow's or goat's milk)(32)□

*Bahya upakrama*

The following are the therapies which are mentioned in the context of *RaktajAtisara*and *Pravahika* in the various classics.

1. *Parishechanam* : *Chandanaditailam* or *Shatadhoutghritam* in proctitis (34) as

*Pralepa,Pratisarana*

3. *Pichu*: *Chandanadi tailam* and *Shatdhoutghritam* .(35)

## CONCLUSION

Ulcerative colitis is an idiopathic inflammatory disease, probably involving an immune reaction of the body to its own gastro-intestinal tract. In *Ayurved*, *RaktajPravahika* shows symptoms having a resemblance with Ulcerative colitis. In the management of Ulcerative Colitis, principle of *AtisaraChikitsa* can be followed. Therapies like *PichchaBasti*, *Anuvasan Basti*, internal medications along with

external therapies like *Parishecham*, *Guda prakshalan*, *Pichu* are indicated.

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