

AN AYURVEDIC REVIEW ON ULCERATIVE COLITIS

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ABSTRACT

Ulcerative Colitis is a disease of the rectum and colon which involve ulcers in the lining of rectum and colon. Ulcerative Colitis (UC) is an idiopathic form of acute and chronic ulcero-inflammatory colitis affecting chiefly the mucosa and submucosa of the rectum and descending colon, sometimes it may involve the entire length of the large bowel. The major symptoms of UC are diarrhoea, rectal bleeding, tenesmus, passage of mucus and crampy abdominal pain. The patients may possess symptoms like diarrhoea along with blood and mucus, weight loss, discharge on rectal region. The disease is also associated with different degrees of pain along with severe cramps. In Ayurveda Ulcerative Colitis has a high resemble with *Raktaja Atisara*, *Pittaja Atisara*, *Raktaja Pravahika*. Many studies have been conducted for the role of Ahara, Vihara and Manasa and their association with pathogenesis of ulcerative colitis, which is a subtype of Inflammatory

Bowel Disease (IBD) which pursue a protracted relapsing and remitting course, usually extending over years. Consumption of hot, spicy and fried food along with stress, anxiety etc leads to *Raktatisara*. Management is focused in healing the ulcers and restoring the normal function of colon.

KEYWORD: Ulcerative Colitis, Inflammatory Bowel Disease, *Raktaja Atisara*, *Pittaja Atisara*, *Raktaja Pravahika*.

INTRODUCTION

Ulcerative colitis is a recurrent inflammatory disease of the colon and rectum characterized by mucosal inflammation and ulceration. Inflammation in ulcerative colitis starts in the rectum and may spread to the colon. It causes irritation and ulcers in the large intestine. It

belongs to a group of conditions called Inflammatory Bowel Disease (IBD). When the inflammation occurs in the rectum and lower part of the colon it is called ulcerative proctitis. If the entire large intestine is affected it is called pancolitis. If only the left side of the colon is affected it is called limited or distal colitis. Ulcerative colitis (UC) may occur in people of any age, but most often it starts between age 15 and 30, or less frequently between ages 50 and 70 years of age. About 40-50% of patients have a disease limited to the rectum and rectosigmoid, 30-40% have disease extending beyond the sigmoid but not involving the whole colon and 20% have a total colitis. With mild inflammation, the mucosa is erythematous and has a fine granular surface that looks like sandpaper. In more severe disease, the mucosa is hemorrhagic, edematous and ulcerated. In long standing, inflammatory polyps (pseudopolyps) may be present as a result of epithelial regeneration. Prevalence of IBD known to be high in western countries but now there is rising incidence and prevalence of disease in India.

The major symptoms of Ulcerative colitis are diarrhoea, rectal bleeding, tenesmus, passage of mucus and crampy abdominal pain. In Ayurveda some sub types of Atisara and Grahani can be correlated with ulcerative colitis. Among these types, Pittatisara and Raktatisara shows bleeding with stool and can be correlated with a symptom of ulcerative colitis which occurs due to ulcerations of colonic and rectal mucosa. Symptoms like increased frequency of stool of ulcerative colitis can be correlated with Vatika grahani and Paittika grahani. According to Acharya Charaka Raktatisara occurs due to intake of Pitta vitiating food and drinks by a patient suffering from Pittatisara. People with pittatisara have tendency to develop Raktatisara (chronic stage of pittatisara) when they do not follow correct diet & daily regulation (Pathya ahara & vihara). Due to increased quantity of blood in stool in Raktatisara, it can be considered as active stage of ulcerative colitis. Bloody diarrhoea along with thirst, pain and burning sensation in abdomen, fever and inflammation of rectum are the clinical features of Raktatisara which can be correlated with complications of ulcerative colitis.

ETIOLOGY

The exact etiology of ulcerative colitis is unknown, but certain factors have been found to be associated with the disease. Etiological factors potentially contributing to ulcerative colitis include genetic factors, immune system reactions, environmental factors, nonsteroidal anti-inflammatory drug (NSAID) use, low levels of antioxidants, psychological stress factors, a

smoking history, and consumption of milk products. Certain type of food composition and the use of oral contraceptive may be associated with condition.

Ayurvedic Perspective of Ulcerative colitis

Acharya Charaka used the word Mahasrotas for whole digestive system. Factors affect Jatharagni cause the diseases of digestive tract and various kind of diseases of gastro intestinal system have been described in ayurvedic texts. Under the diseases of digestive tract, subtypes of atisara (diarrhoea), subtypes of pravahika (dysentery), subtypes of grahani show some of the similar signs and symptoms with ulcerative colitis.

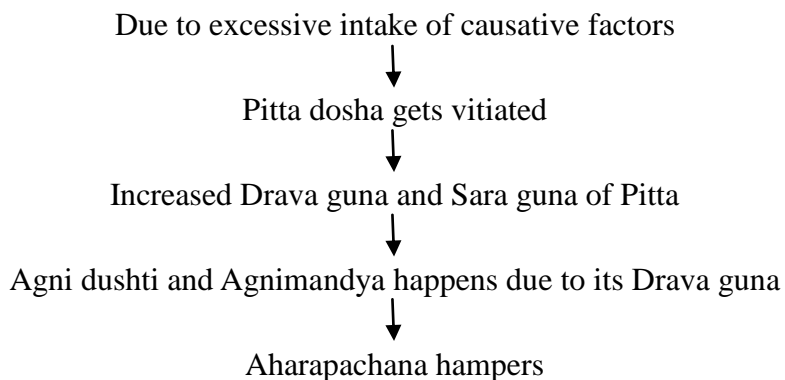
Diseases similar to ulcerative colitis

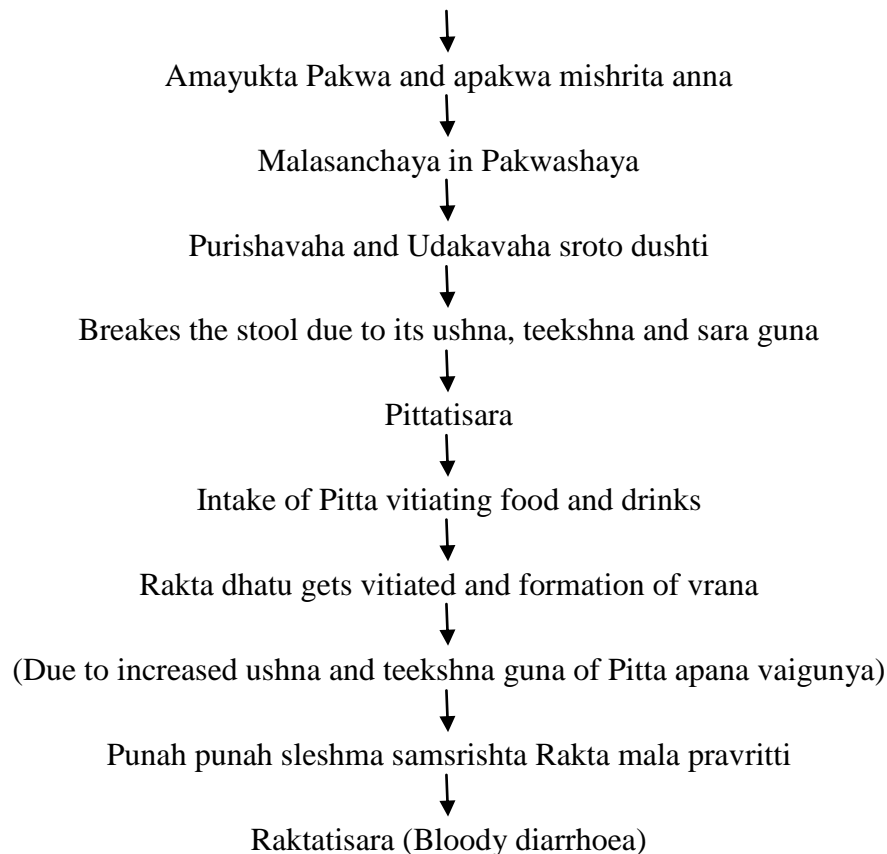
- Atisara : Pittaja, Raktaja
- Pravahika : Raktaja
- Grahani : Vatika, Paittika

According to Acharya Charaka intake excessive sour, salty, pungent, alkaline, hot and irritant things excessively, constant exposure to scorching sun, fire and hot wind and psychologically stressed with anger causes Pittatisara. So continuous intake of pitta vitiating food by a Pittatisara patient leads to Raktatisara.

According to Acharya Sushruta intake of heavy, excessively fatty, rough, hot, liquid and solid, excessively cold, incompatible food, having food before digestion of previous improperly cooked food, drinking of contaminated water and wine excess, suppression of natural urges, excessive sporting in water, worms infestations, ingestion of toxic substances etc causes Pittatisara. As like Acharya Charaka Acharya Sushruta also mentioned that continuous intake of pitta vitiating food by a Pittatisara patient leads to Raktatisara.

SAMPRAPTI





Samprapti ghataka

Dosha : Pitta dominant Tridosha

- Prana dushti (Impaired secretion)
- Samana dushti (Disturbed motility)
- Apana dushti (Incomplete evacuation)
- Pachaka Pitta dushti (Heartburn, ulceration)
- Kledaka Kapha dushti (Stool with mucus, pus with mucus)

Dushya : Rasa, Rakta, Mamsa, Majja

Agni : Mainly Jatharagni, Dhatwagni

Srotas : Purishavaha, Annavaha, Rasavaha, Raktavaha

Srotodushti : Initially Sanga then Atipravritti

Adhisthana : Mahasrotas

Udbhavasthanam : Pakwashaya

Rogamarga : Abhyantara

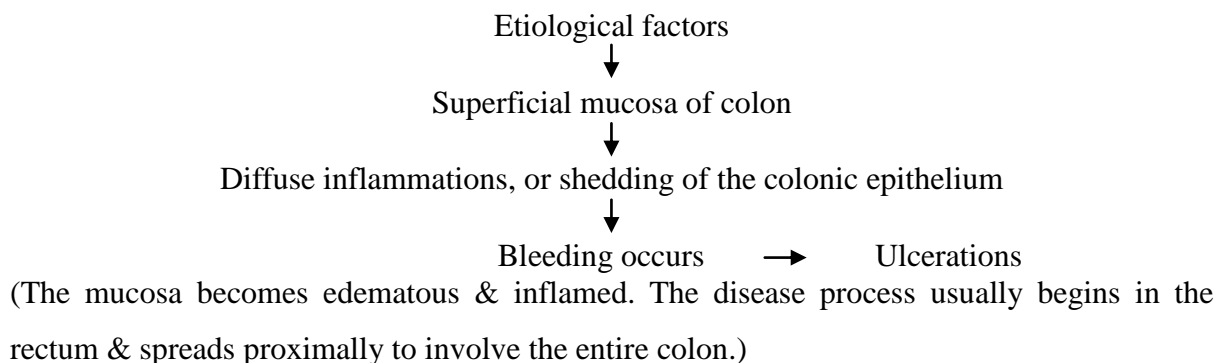
Vyaktasthana : Pakwashaya

Swabhava : Chirakari

Sadhyasadhyata : Yappa

Pathophysiology of Ulcerative colitis

The pathogenesis of Ulcerative colitis is not clearly understood. Multiple genes, environmental factors and intestinal microbiota dysbiosis leads to dysregulated immune response is the probable pathophysiology of this disease.



Signs & Symptoms

Symptoms

- Bloody diarrhoea
- Increased bowel frequency
- Passage of mucus with stool
- Abdominal cramps
- Abdominal distention
- Rectal bleeding
- Tenesmus
- Anorexia

Signs

- Pallor may be evident.
- Mild abdominal tenderness most localized in the hypogastrium or left lower quadrant.
- PR examination may disclose visible red blood.
- Signs of malnutrition.
- Severe tenderness, fever or tachycardia suggests fulminant disease
- Tachycardia, fever, abdominal tenderness or distention
- Malaise, weight loss

Ulcerative Colitis: Disease Presentation

Features	Mild	Moderate	Severe
Bowel movements	< 4 per day	4-6 per day	>6 per day
Blood in stool	Small	Moderate	Severe
Fever	None	< 37.5 ⁰ C	>37.5 ⁰ C
Tachycardia	None	< 90 mean pulse	>90 mean pulse
Anemia	Mild	>75%	<75%
Sedimentation rate	< 30mm/hr	Intermediate	>30mm/hr
Endoscopic appearance	Erythema, decreased vascular pattern, fine granularity	Marked erythema, coarse granularity, absent vascular markings, contact bleeding, no ulcerations	Spontaneous bleeding, ulcerations

Correlation of Signs and symptoms of Ulcerative colitis in Ayurveda

Atisara is defined by Vijayarakshita as excessive passing of liquid stool which can be compared with one of the prominent feature seen in Ulcerative colitis patients. Purishashaya (colon) is described as the place where Atisara occurs and same in Ulcerative colitis. The major symptoms of ulcerative colitis is bloody diarrhoea, with passage of mucus. In severe cases anorexia, tenesmus, malaise, weight loss and abdominal pain. Involvement of rectum, bleeding and abdominal pain can also correlate with other signs and symptoms of Ulcerative colitis. Hence some sub types of Atisara can be correlated with Ulcerative colitis. Among these types Pittatisara, Raktatisara and Shokotpanna Atisara shows bleeding with stool and can be correlated with a symptom of Ulcerative colitis which occurs due to ulcerations of colonic and rectal mucosa.

Blood with stool – Sarakta malam

- Paittika atisara (Su.utt 40/11)
- Raktatisara (Cha.chi 19/69-70)
- Raktaja Pravahika (Ma.Ni 3/22)

Ulceration of the colon – Guda paka

- Paittika grahani (As.Hr)
- Raktavaha sroto dushti (Ch.Su)

Looser stools – Drava/Sithila varcha

Vatika and Paittika grahani

Abdominal cramps – Udara Shula

Vatika grahani (Su.Utt 40)

Anorexia – Annadwasha

Kaphaja Atisara (Ch.chi 19)

Abdominal distention – Adhmana

Vatika grahani

Fever - Hyperacidity & Upper GI Symptom – Jwara, Daha, Trishna, Sweda, Shula

[Pittaja atisara, Rakta atisara, Paittika grahani] (Ch.Chi.19/6)

Increased frequency stool – Punah Punah Varcha (Vatika grahani, Paittika grahani)**Passage of mucus with stool – Sleshasamsrishta pureesham** [Kaphaja Atisara, Kaphaja grahani] (Ch.Chi 19/7)

According to Acharya Charaka in Pittatisara, the patient passes stool as yellow, green, blue, black, associated with Raktapitta and exceedingly foetid. At the same time patient also have general symptoms like thirst, burning sensation, sweating, fainting, pain in abdomen, inflammation and suppuration in anus. While in Raktatisara bloody diarrhoea along with thirst, pain and burning sensation in abdomen and inflammation in anorectum is present.

According to Acharya Sushruta Pittatisara patient passes hot faeces with bad smell and resemblance flesh wash water. Patient feels thirsty, fainting and feverish with profuse sweating of the body. Ulceration in the rectum and anus. While in Raktatisara bloody diarrhoea along with fever, pain, burning sensation in abdomen and inflammation in anorectum occurred.

According to Acharya Vagbhata the Pittatisara patient passes yellow, black, turmeric like or green faeces mixed with blood with foul smell, associated with thirst, fainting, perspiration, burning sensation, pain in abdomen and ulcerations of the rectum. If the Pittatisara patient take Pitta aggravating food continuously then he will developed Raktatisara with symptoms of fever and rectal abscess.

Comparison of Signs & Symptoms of Ulcerative colitis and Pittatisara, Raktatisara, Shokatpanna atisara and Raktaja Pravahika.

Signs and symptoms of Ulcerative colitis	Pittatisara	Raktatisara	Shokatpanna Atisara	Raktaja Pravahika
Increased frequency of stool	++	++	++	+
Blood with faeces	+	++	+	+
Mucous discharge	-	+	-	++
Urgency and tenesmus	+	+	-	++
Chronic nature	-	+	-	-
Loose consistency of stool	++	++	+	+
Abdominal pain	+	+	+	+
Involvement of rectal mucosa	+	+	-	+

MANAGEMENT

Management of Ulcerative colitis according to Ayurveda Principles

“Nidana Parivarjanam, Aushadha Sevanam”

Treatment Principle

- Vata – Pitta Shamana Chikitsa
- Vranaropana
- Use of Kashaya, Madhura, Sheeta virya drugs
- Shamana, Stambhana is done
- Shodhana is done based on doshas

Agnimandya is the main cause of this disease. In all kinds of Atisara sign of Ama and Pakwa should be determined first. The basic principle to consider during treatment mentioned as Ama or Pakwa features of the patient. Features of Ama Atisara are faeces sinks down in water, having excessively foul smell. Patient passes stool frequently in small quantity. Patient with opposite features should be known as Pakwa Atisara. Further, signs and symptoms of Ulcerative colitis can be compared with Vata sthana gata Pitta. So both Vata and Pitta should be considered during the treatment.

Agnideepana, Ama Pachana, Grahi, Stambhaka, Dhātu Poshaka, Sattvavajaya Chikitsa treatments should be given according to the stage of disease. Keeping in mind the strength of the patient, In case of *Amavastha Langhana* should be done first, then drinking of *Yavagu* made with *Deepana, Pachana* drugs like shunthi, chitraka etc is beneficial. Grahi drugs should be avoided in Amavastha condition as it may cause Pliha Vridhi, Pandu, Anaha,

Prameha, Kustha, Jwara, Sopha, Gulma, Grahani, Arsha, Shula, Alasaka, Hridgraha etc. In Pakwa condition Grahi medicine should be given.

During active stage of Ulcerative colitis

Grahi aushadhi should not be given in Ama condition and in Pakwa condition Grahi aushadhi should be given. Acharya Sushruta has advised various kind of formulas contain *Indrayava*, *Ativisha*, *Patha*, *Musta*, *Bilwa*, *Rakta Chandana* etc. According to Sharma PV in his critical notes written for Sushruta Samhita described the action on *Tikta Rasa* of those ingredients on Ama. He describes the basic elements of Vayu and Akasha of *Tikta Rasa* absorb watery substances of Kapha Dosha. Hence, Agni gets free from the covering of Kapha then Ama gets digested. Deepana drugs can be used in patients having Agnimandya. *Lodhradi*, *Ambashthadi*, *Priyangvadi*, *Nyagrodhadi*, *Pippalyadi* groups can be used in this stage of Ulcerative colitis. According to Acharya Sushruta, *Ambashthadi* and *Pippalyadi* groups are helpful when profuse discharge of blood and mucous occurs that can be compared with active stage of Ulcerative colitis.

Many *Stambhaka* formulas given in texts which can be used in this stage of Ulcerative colitis. *Anuvasana Vasti* and *Piccha Vasti* is useful in mild to moderate stage of the disease to check bleeding, diarrhoea and abdominal pain.

Chronic stage of Ulcerative colitis

During chronic stage of the disease when Vata gets dominant in Pakwashaya, *Anuvasana Vasti* is useful. Preparations of *Ghrita* can be used for these patients due to its *Vatanulomana* and *Agni Deepana* properties. Ashtanga Hridaya prescribed *Putapaka* for the patients having chronic bloody diarrhoea without Ama or pain. Goat milk has been prescribed by all texts and administration of animal blood also prescribed during severe anemic conditions. Intra venous blood transfusion is been practiced in modern medicine during severe anemia due to Ulcerative colitis.

Pathya & Apathya

Pathya

Kashayarasa pradhana ahara, Deepana, Laghu guna yukta aahara, Purana Shali. Vilepi, Lajamanda, Small fishes, Jambu phala, Bilwa, Salooka, Kapitha, Bakuchi, Dadima, Madhu, Mudga yusha, Changeri, Rambha pushpa, Kamalakanda, Takra, Langhana, Vamana, Nidra, Purna vishrama, Activities making mind happy.

Apathya

Guru, Rooksha ahara, Virudhasana, Godhuma, Masha, Yava, Vastuka, Madhu sigru, Kushmanda, Tumbi, Badara, Saka varga, Punarnava atishita Jala, Dushta Jala, Viruddha bhojana, Snana, Abhyanga, Avagaha, Vyayama, Snigdha bhojana, Agni santapa should be avoided by Atisara rogi as per the text of Chakradatta.

Ayurvedic Formulations used in Ulcerative colitis (UC)

- Nyagrodhadi Kashaya
- Tiktaka Kashaya
- Usheeradi Kashaya
- Guduchyadi Kashaya
- Yashtimadhu Churna + Gairika Churna
- Laksha Churna
- Lodhra Churna
- Kutajaghana Vati
- Karpura Rasa
- Nagakeshara Churna
- Nilotpaladi Yoga
- Madhukadi Churna
- Panchamrita Parpati
- Vijaya Parpati
- Aristas and Asavas are not used.
- Virechana is fully contraindicated, but Picchavasti can be done
- Ghritam can be given after getting good Agni bala

Piccha Vasti

Piccha Vasti is named so because of its Picchila properties which means it is sticky or lubricant. Piccha Vasti means medicated having Picchila property. Picchila guna itself act as Lepana and have Jeevana, Balya and Sandhana property. Acharya Charaka has described Piccha Vasti for the treatment of Pravahika (Dysentery), Gudabhramsa (Rectal prolapse), Raktasrava (Bleeding per rectum), Jwara (Fever), Pitta Atisara, Shotha (Inflammation), Gulma, Jeerna Atisara and Grahani Dosha.

Probable mode of action of Piccha Vasti can be explained through.

- Shothahara & Vrana – Ropana
- Raktastambhaka
- Sangrahi/Stambhaka
- Pitta shamaka
- Agnideepaka

Ingredients of Piccha Vasti.

Kwatha :- Shalmali vritta kwatha 100-150ml

Kalka (Paste) :- Yashtimadhu Churna – 3gm

Lodhra Churna – 3gm

Rasanjana – 3gm

Mocharasa – 3gm

Nagakeshara Churna – 3gm

Shatapushpa Churna – 3gm

make a paste by adding 1 glass of water.

Sneha :- Panchatikta ghrita or Changeri ghrita or Jatyadi ghrita – 20ml

Milk :- Goat milk – 100-200ml

Honey :- 1-2 tsf

Mocharasa is the resin of *Shalmali* (Resin of *Salmalia malbarica*). Due to its Kashaya rasa and Sheeta virya, it has *Vrana ropaka* (ulcer – healing) properly. Acharya Charaka has kept it in *Shonitasthapana gana* thus it checks bleeding (hemostatic agent). The polyphenols and tannins present in *Salmalia malbarica* provide strength to intestinal mucosa, decrease intestinal secretions, intestinal transit and promotes balance in water transport across the mucosal cells. It is picchila in nature, thus forms protective film over intestine and avoid friction over mucosa.

Ghrita helps in stimulating Agni and it also has a Balya and *Vrana ropana*. In Ayurveda classics it is mentioned that *Ghrita* is best *Pitta shamaka Dravya*. Pitta is responsible for inflammation and ulceration process.

Some specific foods are generally recommended for patients of Ulcerative colitis

❖ Takra – Deepaniya, Grahi, Laghava

Madhura vipaka - Pitta shamana

Kashaya, Ushna, Vikasi, Ruksha - Kapha hara

Madhura, Amla, Sandra – Vata hara

Takra is helpful to maintain microflora in gut in ulcerative colitis

- ❖ Goat's milk – Goat's milk is very useful. Goat's milk administered to a patient having strong power of digestion cures Pittaja atisara and promotes strength as well as complexion. It should be used, when cooled, with honey and sugar for drink, along with food and for washing the anal region. Goat's milk along with the boiled rice of red variety of Shali should be given.
- ❖ Cow ghee or medicated ghee – Such as Shatavari ghrita can be used for these patients due to its *Vatanulomana* and *Agni Deepana* properties. If bleeding takes place before evacuating the stool (i.e; a case of raktatisara), then Shatavari-ghrita in the form of linctus should be given.

DISCUSSION

Ulcerative colitis (UC) is a chronic inflammatory bowel disease with a relapsing and remitting course. The cause is unknown, but several theories have been put forward of which the main are infective, nutritional, psychosomatic and immunological. The major symptoms of ulcerative colitis are bloody diarrhoea, emotional stress, rectal bleeding, tenesmus, passage of mucus and crampy abdominal pain. Based on similarities in signs and symptoms, ulcerative colitis can be compared with some sub types of Atisara (Pittatisara, Raktatisara and Shokapurna atisara) and Raktaja Pravahika.

Raktatisara is primarily a disease of Pitta Dosha with varying degrees of Vata involvement. Consumption of hot, spicy and fried food along with stress, anxiety etc vitiate the Pitta Dosha and ultimately leads to Pitta Atisara. If patient suffering from Pittatisara do not follow Pathya Ahara and Vihara and intake excessive pitta vitiating food then develop Raktatisara. Vitiating Pitta and Rakta are responsible for inflammation and ulceration. Raktatisara considered as chronic stage of Pittatisara. In Raktatisara bloody diarrhoea along with thirst, pain and burning sensation in abdomen and inflammation in anorectum is present. Symptoms of ulcerative colitis can be correlated with Raktatisara.

Raktaja Pravahika as the frequent stool and blood are the main characteristic features which deteriorating the patient's general health. Patients having Raktaja Pravahika also show symptom of increased frequency of stool with mixed blood, but in small quantity. Pittatisara is comparatively actual stage rather a chronic disease. Hence Raktatisara is more accurate

correlation of ulcerative colitis. Therefore here the first line of treatment is *Nidanaparivarjana* followed by use of *Sansamana chikitsa* which includes *Amapachana*, *Agnideepana*, *Grahi*, *Raktastambhaka* and *Vrana Ropana* medicine. Along with Shamana chikitsa *Piccha Vasti* is beneficial in mild to moderate stage of Raktatisara to check bleeding, inflammation in anorectum, diarrhoea and abdominal pain. To measure to digest the Ama (biotoxin) to bring Agni in its normal state and control the diarrhoea and get the restoring health digestion and creating a bacteria friendly environment in the body and relief in all other complaints.

According to Acharya Sushruta, all types of Atisara should be managed by light diet initially which can eliminate Ama from body. This should be carried out according to the strength of the patient. Psychological factors such as stress, anxiety play an important role in this disease process so patient should be assured with proper counselling.

CONCLUSION

Ulcerative colitis (UC) is a chronic inflammatory bowel disease, whose aetiology is unknown. The dietary habits of the patient i.e; frequent consumption of spicy, oily, junk food may be a predisposing factor of ulcerative colitis. Ulcerative colitis is a disease which can not be cured completely in all the patients but can be managed by adopting various modalities of Ayurvedic treatment which provide better quality of life for the patient. Treatment is focused in healing the ulcers and restoring the normal function of colon and maintaining the overall health of the digestive system. *Shamana chikitsa* includes *Agni Deepana*, *Amapachana*, *Grahi*, *Stambhana* and *Vranaropana* etc. Various oral medicine *Piccha Vasti* have been proved useful in alleviating symptoms and to reduce severe condition. In more severe case Panchakarma therapy plays a vital role as it quickly detoxifies and rejuvenates the digestive system, controls the inflammation, rectal bleeding and heals the ulcerations. Usually results are very good with Ayurvedic line of treatment.

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