

CROHN'S DISEASE: A REVIEW BASED ON AYURVEDA AND MODERN PERSPECTIVE

Dr. Gauri P. Patange^{1*}, Dr. Seema R. Giri² and Jagannath S. Kharat³

^{1*}PG Scholar, Department of Shalyatantra, Government Ayurved College,
Osmanabad, Maharashtra, India.

²Professor, Department of Shalyatantra, Government Ayurved College,
Osmanabad, Maharashtra, India.

³PG Scholar, Department of Shalyatantra, Government Ayurved College,
Osmanabad, Maharashtra, India.

Article Received on
20 July 2019,

Revised on 10 August 2019,
Accepted on 30 August 2019,

DOI: 10.20959/wjpr201910-15616

*Corresponding Author

Dr. Gauri P. Patange

PG Scholar, Department of
Shalyatantra, Government
Ayurved College,
Osmanabad, Maharashtra,
India.

ABSTRACT

Crohn's disease is a chronic inflammatory disease of GI tract, most commonly involving the ileum or colon. However, the disease may affect any part of the GIT.^[1] It is currently estimated that, in united state about 1- 1.3 million people suffer from IBD. The cause of IBD is unknown, and until we understand more, prevention or a cure will not be possible. Now, CD is considered a result of multifactorial interplay between genetic, immune related, environmental, and infectious triggers that coalesce into evolution of clinical disease. According to *Ayurveda*, Crohn's can be compared to *Grahani* and *Atisara*. *Grahani* in *Ayurveda* is actually an anatomical term to describe small intestine (especially Ileum and Jejunum). Any vitiation or inflammation to this

particular part by imbalanced doshas (*vata*, *pitta*, *kapha*) can cause a wide variety of symptoms similar to that of C.D., anywhere across the digestive system. This article is an attempt to find out better treatment modalities from an *ayurvedic* perspective which are mentioned in classical texts which may help in increase the remission period of Crohn's patients.

KEYWORDS: Crohns disease, *Grahani*, *Atisara*, *vata*, *pitta*, *kapha*.

INTRODUCTION

The label 'Crohn's disease' became attached to a chronic inflammatory disease of the ileum following a key publication by Burrill Crohn and colleagues in 1932.^[2] CD is characterized by a chronic full thickness inflammatory process that can affect any part of the gastrointestinal tract from the lips to the anal margin. It is most common in North America and Northern Europe with an incidence of 5 per 100 000. Prevalence rates of around 50 per 100 000 have been reported in the UK.^[2] It is slightly more common in women than in men, and is most commonly diagnosed in young patients between the ages of 25 and 40 years. Crohns described this disease as 'terminal ileitis'.^[3] The etiology of Crohn's disease is incompletely understood but is thought to involve a complex interplay of genetic and environmental factors. Although CD shares some features of chronic infection, no causative organism has ever been demonstrated. An intriguing similarity to Johne's disease of cattle, a chronic inflammatory enteropathy resulting from infection with *Mycobacterium paratuberculosis*, suggests that CD in man may share a common aetiology. Autoimmune disease has been said to be one of the basis for this chronic inflammatory disease. Crohns disease is a premalignant lesion and predisposes to cancer but the chance is less than in ulcerative colitis. Smoking is related to crohn's disease as aetiology, as for relapse and for exacerbations.^[1]

A few different types of aetiologies have also been incriminated such as a) trauma, b) lymphatic obstruction c) absorption of toxic substances from food, d) inherited metabolic defects, e) predisposing genetic defect such as Turner's syndrome, imbalance between sympathetic and parasympathetic nerve activity etc. Many clinicians feel that emotional stress is important in the initiation and perpetuation of inflammatory bowel disease. Above all, Crohn's statement that 'the actual aetiology' is completely unknown' is still very much true even today.^[3]

Crohns disease tends to be more common in relatives of patients with crohns disease.^[4] Crohn's disease more commonly presents with features of chronicity. Chronic small bowel CD often manifests as mild diarrhoea extending over many months, occurring in bouts accompanied by intestinal colic. Patients may complain of pain, mostly in the right iliac fossa, and a tender mass may be palpable. Intermittent fevers, secondary anemia and weight loss are common. Plain X-ray abdomen, ultrasound abdomen, Barium meal, CT scan, Colonoscopy, Serum markers are some of the investigations done in this disease.

PATHOLOGIC FEATURES

GROSS APPEARANCE

Crohn's disease is a transmural, predominantly submucosal inflammation characterized by a thickened colonic wall. The affected mucosa observed by endoscopy is often described as having a cobblestone appearance. In severe disease, the bowel wall may be entirely encased by creeping fat of the mesentery, and strictures may develop in the small and large intestines. The mucosa may demonstrate long, deep linear ulcers that resemble railroad tracks or bear claws.^[5] Normal mucosa may intervene between areas of inflammation, causing skip areas which is characteristic of the disease.

HISTOLOGIC APPEARANCE

Crohn's disease is characterized microscopically by transmural inflammation, submucosal edema, lymphoid aggregation, and, ultimately, fibrosis. The pathognomonic histologic feature of Crohn's disease is the noncaseating granuloma, a localized, well-formed aggregate of epithelioid histocytes surrounded by lymphocytes and giant cells. Granulomas are found in 50% of specimens resected in Crohn's disease; however, the number identified by endoscopic biopsy is far smaller.

PRESENTATION

- A. Acute presentation (5%).^[6] It mimics acute appendicitis with severe diarrhea. Often there will be localized or diffuse peritonitis.
- B. Chronic Crohn's: First stage- Mild diarrhea, colicky pain, fever, anaemia, mass in right iliac fossa which is tender, firm, and non-mobile along with recurrent perianal abscess. Second stage- is either acute or chronic intestinal obstruction due to cicatrization with narrowing. Third stage- is fistula formation-enterocolic, enteroenteric/ enterovesical, enterocutaneous, etc. It is precancerous condition but not as much as ulcerative colitis.

ROLE OF PSYCHOLOGICAL FACTORS

As western science has shown, there is a correlation between the nervous system and gut⁴. In fact, the gut plays a role in the wellbeing of two nervous systems, the CNS and enteric nervous system. Modern research in western medicine show that the vagus nerve sends information from the gut to the brain. If there is an imbalance in gut flora, i.e too little, there is an effect on the brains chemical synthesis, creating decreased flux of neurons such as serotonin, which can lead to negative emotions. Even more so, as the brain has neuron receptors, so does the gut. Hence, gastro imbalances directly impact a persons mood. Stress

permit bacteria to continue to develop in the gut, causing ulceration and inflammation, however if the gut is unhealthy the person experiences stress. Therefore it is understandable that *Ayurvedic* medicine would attribute one of these causes of digestive upsets such as C.D. to fear and grief, as it is only by treating the mind, body and emotions, from an *Ayurvedic* perspective, can C.D. be put back into remission. In *Charaka samhita*, it is written that there are two types of diarrhoea that arise due to psychological factors.^[7] They are *sokaja atisara*- those caused by grief and *sannipataja atisara*- those caused by fear and anxiety. Here, it is evident that in ancient India there was an understanding of mental health's impact on digestive wellbeing, as two sources restate it. *Gangadhar Roy* discusses this as well in *Charaka Samhita* where he states that the psychosomatic nature of these two types of digestive disturbances later associated as *vata dosha*.^[8] It is challenging to talk about C. D. without noticing Ulcerative colitis as modern *ayurveda* conglomerates them under the same classification. *Grahani* (ulceration of the small intestines or duodenum), which effects include *atisara* (diarrhoea) and *udara roga* (abdomen pain and cramping). For a matter of fact, both the *Charaka Samhita* and the *Astanga Hrdayam* attest to the psycho-immunological nature of digestive dysfunction. The classical text *Vagbhata's Asthanga Hrdayam*, intestinal disease of this sort is said to be caused when *atisara* caused by grief (*sokaja and bhayaj atisara*) are left untreated to the point of progressing into *Grahani*.^[9]

AYURVEDIC VIEW

In *Ayurveda* literature specifically *Vatika grahani* is related to this condition. Where it is mentioned that the root cause of all the disease lies within the process of digestion, when the digestive system is working at its optimum supported by correct lifestyle and correct quantity of food. Depend on individual *prakruti* the food ingested is broken down into the constituents that nourish the tissues and supports our everyday function. The *sthana* of *Agni* is known as *grahani*. The relation between *Grahani* and *agni* is similar to that of relation between structure and function. When the digestive fire which burns within our stomach is affected by incorrect lifestyle and eating habits leads to production of food toxins (*Aama visha*). *Aama* gets stuck in the villi of the intestine to form a thick coating. This *aama* and increased heat in the abdomen causes vitiation of *kapha*, resulting in the loss of *snigdhatva* (oiliness and mucous secretion) of intestines. Mucous thus eliminated will be presented in stool. Gradually loss of properties of *kapha* leads to aggravation of *Pitta*. This initiates inflammatory changes and ulcerations. These changes result in bloody diarrhoea. Long term advancement of the situation causes structural changes of intestinal walls leading to failure of

absorption mechanism. Failure of absorption and impaired intestinal movement cause weakness, diarrhoea, tiredness, weight loss, anaemia etc.^[10]

In the case of C.D., *vata's subdoshas, prana vayu*, is the first to be vitiated in the onset of C.D. *Prana vayu* is aggravated by the over stimulation of external stimuli, this causes excessive movement of the mind, which relates back to *parinama*, as it is a transformation done over time and with excessive motion. *Prana*, enters the body and circulates through the body as *vyana vayu* where *vyana vayu* is the air that moves from the body's centre to its peripheries. It often, and does in this case, move information through the *majjavaha strota* and effects the state of the *majja dhatu*, which is the eastern equivalent of the nervous system and nervous tissue.^[4] When the information from the external world is too much, the nervous system becomes hyperactive or *vata* imbalanced. Understanding this condition between *dhatu* and *subdosha* can help to clarify the current evolution in western thinking. The nervous system controls stress response. When stress is high from an increase of stimulation from *prana*, the first signs of the development of C. D. are seen. Many studies of C. D. and related digestive disorders have shown that the subjects have had symptoms of weak digestion and digestion disturbances far beyond the onset of disease, this relates back to the studies of childhood stress and previous bacterial infection which play a key role in the causation of Crohn's.

In *Ayurveda*, it would be stated that in the *samprapti*, also known as the pathogenesis, that *vata, pitta and kapha* would relocate in the *manovaha strota*. *Vata* in the *Manovaha strota* causes anxiety, *pitta* causes fever, or anger and *kapha* causes lethargy and depression. Eye ulceration and reddening, as well as acne may be present in many cases as the body attempts to release toxin and acidity. Canker sores which are ulceration in the mouth are another symptoms that is seen in patients with severe gastrointestinal disease.^[11] According to *ayurveda*, it is further relocation and manifestation of *pitta dosha* in the forms of *alochaka pitta* the fire that digests light and visual impressions, in the *majja dhatu* (tissue of the nervous system), *bhrajaka pitta* in the *mamasa dhatu* as for canker sores, they can be understood as a conjoined *vata/pitta* imbalances in the *annavaha strota* upper digestive track or as part of ulceration in the *mahavaha strota*.

TREATMENT

MODERN APPROACH

Unfortunately Crohn's disease is hardly curative- either by medical or surgical treatment. In spite of various treatments, there is no cure for the disease. About 10-20% patients come with relapses and recurrent symptoms.^[12] Medical therapy is mainly symptomatic and is directed to relieve abdominal pain, infection, controlling diarrhea and correcting deficiencies in proteins, haemoglobin, electrolytes and vitamins. Allopathic medicine has minor source of medical treatment as temporary medication with intestinal antibiotics, anti diarrhoeal, salazopyrine, steroids, immune modulator drugs and lastly surgery. But these drugs only control the episodes of the disease but do not offer on lasting relief. Also these modern drugs have huge list of possible side effects like intolerance and toxicity to other organs like liver, kidney, pancreas, eyes etc.

Surgery is not to cure the disease, but to correct complications. Recurrence of complications and relapse of disease can occur even after surgery.

AYURVEDIC APPROACH

Ayurveda treatment is very vital and has been proven effective in limiting the symptoms of the disease. *Ayurveda* has a detailed process that driven approach to find the root cause of IBD, assessment of the severity of disease based upon *Ayurveda* and allopathic parameters, a systemic flow to derive the pathogenesis of the disease and plan a *chikista* based upon the same. Also a unique approach to have the sustained well-being after the main treatments to prevent the replase of IBD. This is done with planned reviews to keep a track off the health status. Diet and lifestyle recommendations are advises to follow. Some herbal remedies for CD helps to keep these conditions in control and improve the digestion and overall health of the patient. *Bilva* (*Aegle marmelos*), *Vacha* (*Acorus calamus*), *Giloy* (*Tinospora cordifolia*), *Vaividang* (*Embllica ribes*), *Mulethi* (Liquorice root), *Daruharidra* (*Berberis aristata*), *Kutaj* (*Holarrhena antidysenterica*), *Mustak* (*Cyperus rotundus*), which having anti- inflammatory, anti-microbial and anti-oxidant properties.^[13]

DISCUSSION

Crohn's disease is a granulomatous, noncaseating (transmural) inflammatory condition of the ileum commonly and of the colon often. *Ayurveda* offers natural remedies for CD, which help to cure the ailments by correcting the imbalance of the *pitta dosha*. According to the concept of *tridosha*, IBS occur as a result of an imbalance in the *pitta* humour. The CD alternative

treatment using herbs helps to restore the balance of the three doshas and control the symptoms of the disease. It also helps to prevent the complications of these disorders. The natural remedies for Crohn's flare up prevent inflammatory changes in the colon, rectum, ileum, and other parts of the digestive tract. Thus, once a disease falls into remission, lifestyle management by using mindfulness practices improves overall health.

CONCLUSION

As Crohn's disease roots back to sensitivity towards stress and anxiety, *ayurvedic* treatment targeting *Vata and Pitta* in the digestive track have been suggested throughout time for treatment. As it has been recognized that the psychological tendencies experienced by the patients that perpetuates the autoimmune condition. These psychological tendencies were expressed in *Ayurveda* during the time the *Ashtang Hridayam* and *Charaka Samhita* were written as *sokaja atisara* and *sannipataja atisara*, suggesting the relevancy of ancient *Ayurveda* in a modern day world. *Ayurvedic* management targets to heal the ulcers, digest *ama*, eliminate toxins and balance the *doshas* in the body and boost immune system to control such troubling conditions.

ACKNOWLEDGEMENT

Author is thankful to all the publishers, editors of all the books, articles and reports from where the literature of this article is reviewed and discussed.

REFERENCES

1. Makhan Lal Saha, *Bedside Clinics in Surgery*, Jaypee Brothers Medical Publishers, Third edition, 2018; 831.
2. Norman S. Williams, Christopher J. k. Bulstrode & P. Ronan O'connell, *Bailey & Love's Short Practice of Surgery*, 26th edition, P. 1168.
3. S. Das, *a Concise Textbook of Surgery*, 9th edition, P. 954-955.
4. www.ayurvedacollege.com
5. *Sabiston Textbook of Surgery*, edited by Courtney M. Townsend, B. Mark Evers, R. Daniel Beauchamp, Kenneth L. Mattox, First south asia edition, 2: 1350.
6. Shrim Bhat M, *SRB's Manual of Surgery*, 5th edition, 866.
7. R. K. Sharma and Bhagwan Dash, *Charaka Samhita*, Chaukhamba Sanskrit Series, 1992; 4: 19- 175.
8. R. K. Sharma and Bhagwan Dash, *Charaka Samhita*, Chaukhamba Sanskrit Series, 1992; 4: 19- 176.

9. Prof. K. R. Srikantha Murthy. Vagabhata's Astanga Hridayam, Chowkhamba Krishnadas Academy, 2013; 76.
10. <https://ayurved.com>
11. Mayo Clinic Staff. 'Disease and Conditions; Crohns Disease.' <http://www.mayoclinic.org/diseases-conditions/crohns-disease/basics/definition/con-20032061> (August 2014).
12. Manipal Manual of Surgery, edited by K. Rajgopal Shenoy, 4th edition, 686.
13. <https://www.pureherbalayurved.com.au>- Crohn's disease and Ulcerative Colitis Natural Ayurvedic Treatment.