

**PROFILE OF ULCERATIVE COLITIS IN SOUTH INDIAN REGION: KARAIKAL****D.BADMAPRIYA\*, V.SATHISH KUMAR<sup>1</sup>**

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<sup>1</sup>MEDISAS PHARMACEUTICALS PVT. LTD., PONDICHERRY-605 011.\*Corresponding Author E.mail: [badma.priya@yahoo.com](mailto:badma.priya@yahoo.com)**Research Article****RECEIVED ON 12-05-2011****ACCEPTED ON 31-05-2011****ABSTRACT**

The increasing incidence of ulcerative colitis has been reported from western countries and other parts of the world. Even in India this disease is diagnosed to be more common. Though, there is need to study the disease course and its complications from our country. This study was performed to determine the prevalence of ulcerative colitis and to establish the spectrum of disease in India. A total of fifty patients with ulcerative colitis on follow-up in surgery out-patient department were enrolled in this study. The course and severity of the disease and response to the treatment was monitored in all patients prospectively. The response to the treatment was assessed as complete remission, partial remission, and relapse. Out of 74 registered patients, 50 patients (34 male and 16 female) were on regular follow up. During the follow up, 3 patients (2 male and 1 female) had more than 2 relapses per year. 35 patients remained in remission for more than 2 years. Five patients with ulcerative colitis had ileocolonic granulomas and two of these had gastric granulomas. UC is challenging clinical entity requires early diagnosis and therapy to avoid severity of the disease.

**KEYWORDS:** Ulcerative colitis, follow-up, complete remission, partial remission, relapse

**Introduction**

Many conditions such as infections, inflammatory diseases and tumors, affect both the small and large intestine. Disorders of intestines account for a large portion of human disease. These defects are usually uncommon but sometimes result in serious clinical disease such as: Atresia, duplication, meckel diverticulum, omphalocele, gastrochisis, malrotation and Hirschsprung disease.

There are various disease occurs in small and large intestine, such as ischemic bowel disease, angiodysplasia, hemorrhoids, colonic diverticulosis, bowel obstruction, enterocolitis, inflammatory bowel disease, tumors of small and large intestine.

Inflammatory bowel disease refers to two chronic, relapsing and debilitating idiopathic inflammatory gastrointestinal disorders including Crohn's disease and Ulcerative colitis<sup>1,2</sup>. Ulcerative colitis is a recurrent ulcerative and inflammatory disease affecting the mucosa and sub-mucosa of colon and rectum. It is a non granulomatous inflammation limited to the colon. It affects the superficial mucosa of the colon and characterized by multiple ulcerations, diffuse inflammation and desquamation or shedding of the colonic epithelium. According to the currently accepted hypothesis, ulcerative colitis and Crohn disease result from a dysregulated

response of the mucosal immune system toward intraluminal antigens of bacterial origin in genetically predisposed persons<sup>3</sup>.

Ulcerative colitis (UC) is a common disease in the Western population, but it is frequent in Asia, Africa and South America. It is well predicted that the incidence of inflammatory bowel disease is among the highest individuals of Malaysians<sup>4</sup>, Anglo-Saxon descent, Scandinavian<sup>5,6,7</sup> and North Indians<sup>8</sup>. Many studies have been published describing various aspects of the disease from Europe and the United States over the past 60 years. The studies from Hong kong and Singapore<sup>9-13</sup> suggest that this disease is uncommon in Asian countries.

The disease may arise at any age, with a peak incidence between 30 and 50 years<sup>14, 15</sup>. However, more data are requires from India to study the disease course. The earlier studies reported from India suggested low incidence of the disease and a milder disease pattern. But, in late nineties have reported a more aggressive course of the disease. Also, an increased incidence has been reported probably reflecting increased awareness, availability of better facilities for diagnosis or truly increased incidence.

The present report assesses the magnitude of the disease in Government General Hospital, Karaikal and studies its natural history, course and clinical profile.

## Materials and Methods

A hospital based registration of previously established as well as newly diagnosed cases of ulcerative colitis was carried out from 1<sup>st</sup> January 2009 to 31<sup>st</sup> December 2010. Ulcerative colitis was diagnosed on the basis of clinical picture, failure to isolate known bacterial and protozoal pathogens on stool

examination, endoscopy and histological findings supporting the diagnosis.

The treatment principles were generally homogenous therapy with combination of an antibiotic (Norfloxacin), H2 receptor antagonist (Ranitidine/Famotidine) and glucocorticoids (Prednisolone) for out-patients. Patients who had severe disease and required hospitalization were treated with parenteral steroids initially along with antimicrobials – ciprofloxacin and metronidazole. In case of failure of medical therapy, the patients were evaluated for surgery. Patients were followed-up for their disease course as relapse, partial remission or complete remission.

Relapse was defined as worsening of symptoms recognized by the patients (rectal bleeding, loose stools and bowel frequency) with endoscopic appearance of active colitis (granularity, friability and/or spontaneous bleeding). Complete remission was defined as clinical improvement with absence of symptoms of active disease [(rectal bleeding, stool frequency) with endoscopic appearance of grade 0 or 1 (Baron et al: 0-normal mucosa, 1-granular oedematous mucosa with loss of vascular pattern, 2-bleeding to light touch, 3-spontaneous bleeding). Partial remission was defined as clinical improvement with stool frequency still more but less than 50% of previous, and endoscopy showing downgrading of severity (grade 1-2).

## Results and Discussions

During this study period a total of 74 patients were registered with ulcerative colitis (45 male and 29 female). The proportion of ulcerative colitis was 0.07% per year (74 per 100,000) of all patients attending the hospital. Out of which only 50 patients (34 male and 16 female) were on regular follow up.

**Table 1** describes and compares the clinical and demographic profile of these patients. The maximum number of patients was in the age group of 31-40 years. Five patients with ulcerative colitis had ileocolonic granulomas and two of these had gastric

granulomas. Extraintestinal manifestations included joint pain (n=6), pyrexia (n=2), oral ulcers (n=2), and arthralgia (n=1). The patients of pyrexia of unknown origin not have any indication of perianal abscesses suggesting that disease activity was the cause of fever.

**Table 1: Clinical and Laboratory profile of the patients with ulcerative colitis**

Features	Male	Female
Number of patients	34 (68%)	16 (32%)
Age (mean±SD)	31.04±3.5 years	32.2±2.9 Years
Abdominal Pain	10 (29.4%)	3 (18.75%)
Diarrhea	4 (11.76%)	NIL
Blood in stool	23 (67.64%)	9 (56.25%)
Anorexia	2 (5.8%)	4 (25%)
Nutritional Impairment	8 (23.52%)	12 (75%)
Extraintestinal manifestations	5(14.7%)	1(6.25%)
Hemoglobin (g %)	10.2±1.6	9.5±1.2
Albumin (g %)	3.2±0.7	3.6±1.0
ESR(mm/h)	59±34	46±33
Follow up (median, range)	2 years	2 years
Relapse	2 (5.8%)	1(6.25%)
Remission	24 (70.58%)	11(68.75%)

During the follow up, 3 patients (2 male and 1 female) had more than 2 relapses per year. 35 patients remained in remission for more than 2 years. Various factors implicated

as the cause for relapse by the patients were emotional disturbances, dietary factors, seasonal variations, infections academic examination, alcoholism and use of drugs.

## CONCLUSION:

This study gives an overview of the present disease status of ulcerative colitis in our country. The patients reach the hospital after prolonged symptomatology and had severe disease. Ulcerative colitis remains uncommon despite greater awareness of the disease and better diagnostic facilities that distinguish UC from other colitis. UC is challenging clinical entity requires early diagnosis and therapy to avoid severity of the disease.

## References

1. Podolsky DK., Inflammatory bowel disease. N Eng J Med 347: 417-429, (2002).
2. Sartor RB., Mechanisms of disease: Pathogenesis of Crohn's disease and ulcerative colitis. Nat Clin Pract Gastroenterol Hepatol 3: 390-407, (2006).
3. Bouma G, Strober W. The immunological and genetic basis of inflammatory bowel disease. Nat Rev Immunol. 3:521-33, (2003).
4. Tan, Y-M, Goh, K-L., Ulcerative colitis in multiracial Asian country: Racial differences and clinical presentation among Malaysian patients. World J Gastroenterol 11(37): 5859-5862, (2005).
5. Morris T, Rhodes J., Incidence of ulcerative colitis in the Cardiff region 1968-1977. Gut 25: 846-848, (1984).
6. Haug K, Schrumpf E, Bastard S, Fluge G, Halvorsen JF., Epidemiology of ulcerative colitis in western Norway. Scand J Gastroenterol 23: 517-522, (1988).
7. Binder V, Both H, Hansen PK, Hendriksen C, Kreiner S, Torp-Pederson K., Incidence and prevalence of ulcerative colitis and Crohn's disease in the Country of Copenhagen, 1962 to 1978. Gastroenterology 83: 563-568, (1982).
8. Lai CL, Wu PC, Wong KL, Lok ASF., Clinical features of ulcerative proctocolitis in Hong Kong Chinese; a review of three decades. Am J Proctol Gastroenterol Colon Rectal Surg 1: 14-19, (1985).
9. Fung WP, Monterio EH, Murugasu JJ, Ng KC, Kho KM, Lee SK., Non-specific ulcerative colitis in Chinese and Indians in Singapore. Med J Aust 2: 361-365, (1971).
10. Teh LB, Koh D, Ng HS., Ulcerative colitis in Singapore: a clinical study of sixty-one patients. Ann Acad Med Singapore 16: 474-479, (1987).
11. Ng HS., Chronic inflammatory bowel diseases in Singapore. Sing Med J 7: 360-362, (1989).
12. Tan CC, Kang JY, Guan R, Yap I, Tay HH., Inflammatory bowel disease: an uncommon problem in Singapore. J Gastroenterol Hepatol 7: 360-362, (1992).
13. Lee YM, Fock KM, See SJ, Ng TM, Khor C, Teo EK., Racial differences in the prevalence of ulcerative colitis and Crohn's disease in Singapore. J Gastroenterol Hepatol 15: 622-625, (2000).
14. Eaden J., Colorectal carcinoma and inflammatory bowel disease. Aliment Pharmacol Ther 20: 24-30, (2004).

15. Fiocchi C., Inflammatory bowel disease:  
etiology and pathogenesis.

Gastroenterology. 115:182-205, (1998).



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