



CLINICAL PROFILE OF PATIENTS WITH ULCERATIVE COLITIS AT A TERTIARY CARE HOSPITAL, MANGALURU, INDIA

General Medicine

Dr. Basavaraj S Meti* Resident, Department of General Medicine Father Muller Medical College, Mangaluru, India 575004 *Corresponding Author

Dr. Peter George Professor, Department of General Medicine; Father Muller Medical College, Mangaluru, India 575004

Dr. Anto Ignat Stany Resident, Department of General Medicine; Father Muller Medical College, Mangaluru, India 575004

ABSTRACT

Background: Ulcerative colitis is considered to be common in western developed countries compared to Asians. However, recent studies show increasing number of cases in Asia, with various intestinal and extraintestinal manifestations with typical histology. This study was designed to know the clinical profile of the disease which helps in better understanding of the disease, its extraintestinal manifestations and its histology.

Objectives: To study the clinical and lab profile of patients with ulcerative colitis which includes most common manifestations, extra-intestinal manifestations of ulcerative colitis in tertiary care hospital, Mangaluru.

Materials & Methods: Biopsy proven ulcerative colitis cases from 1st January 2016 to 31st December 2017 in Father Muller medical college, Mangalore, satisfying the selection criteria were included. Clinical features, Endoscopy findings, Lab findings and histology were obtained from MRD files. Statistical analysis was done using SPSS 23.

Results: Among the included patients, 63% were males. Bloody Diarrhea, mucus discharge and abdominal cramp were the most common symptoms. Joint involvement in the form of arthritis and liver involvement in the form of fatty liver were the most common extraintestinal manifestations. Patients were found to have high ESR(70%), hypoalbuminemia(85%) and anemia(50%). Typical histology findings were presence of crypt abscess, cryptitis, infiltration of lamina propria with neutrophils, lymphocytes and eosinophils and mucosal depletion.

Conclusion: Ulcerative Colitis is more prevalent in males than females, and common in elderly, with bloody diarrhea mucus discharge and tenesmus being most commonest intestinal manifestation. Extra-intestinal manifestations mainly related to joints, hepatic and skin involvement. Typical histological pattern includes Lamina propria infiltrated with Neutrophils, Lymphocytes; Crypt abscess, Cryptitis, Crypt branching. Ulcerative colitis an important premalignant condition, colonoscopy and evaluation at regular interval is needed to take precaution against colorectal cancer.

KEYWORDS

Ulcerative colitis; clinical symptoms; colonoscopy; Histology; extraintestinal manifestations.

INTRODUCTION:

Ulcerative colitis (UC) is a chronic inflammatory disease of the distal gastrointestinal tract with multiple extra-intestinal manifestations and shows inflammation, abscesses and ulceration of colon and rectal mucosa. Patients usually present with chronic diarrhea containing blood and mucus. Family history is a significant factor as it is found to be an immune response to environmental factors in genetically susceptible individuals^[1,2]. The histology shows inflammation of intestinal mucosa; causing edema, ulceration and bleeding; resulting in bloody mucus diarrhea.

Prevalence has seen a rise in previously low incidence areas, such as Asia, and North Indians^[3] Eastern Europe^[4]. Data regarding its varied manifestation including various extra-intestinal manifestations from South India is very less. Hence the present study is designed to evaluate the clinical profile of ulcerative colitis, its presentation, extra intestinal manifestation in a population attending a tertiary care hospital in Mangalore.

OBJECTIVES:

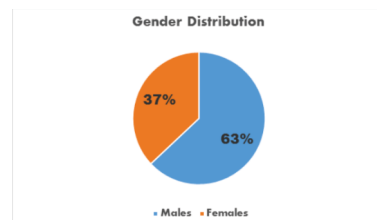
To study the clinical and lab profile of patients with ulcerative colitis which includes most common manifestations, extra-intestinal manifestations of ulcerative colitis in tertiary care hospital, Mangaluru.

MATERIALS AND METHODOLOGY:

This is observational descriptive record based time bound study. Biopsy proven ulcerative colitis cases admitted in Father Muller medical college and hospital Mangalore from 1st January 2016 to 31st December 2017. Clinical features, endoscopy findings, laboratory results and histopathology reports were obtained from the medical records. Statistical analysis was done using SPSS 23.

RESULTS:

A total of 61 cases of biopsy proven Ulcerative Colitis had diagnosed in Father Muller Medical College and Hospital Mangaluru. Among that 63% were males and 37% were females.



Bloody Diarrhea, mucus discharge and abdominal cramp were the most common symptoms. Other common symptoms were as shown in table 1.

Table 1.

Symptoms	Percentage
Bloody Diarrhea	83%
Mucus discharge	85%
Tenesmus	62%
Frequent small stools	55%
Pellety stools	11%
Abdominal cramp	82%
Anorexia	25%
Malaise	15%
Weight loss	37%
Fever	28%

Extra intestinal manifestations however are not uncommon. In our study 39% of patients had extra intestinal manifestations. Most common being joint involvement in the form of arthritis (16%) and liver involvement in the form of fatty liver (10%). None of the patient in our study found to have heart, eye involvement, and Amyloidosis. Other common extraintestinal manifestations are as follow in table 2.

Table 2.

Extraintestinal Manifestations	39%
Joint 1)Arthritis	16%

2)Ankylosing Spondylitis	2%
Liver 1)Fatty liver	10%
2 Primary Sclerosing Cholangitis	3%
Skin 1)Pyoderma gangrenosum	5%
Lung 1)Fibrosis	3%
2)Alveolitis	0%
Blood 1)Thromboemolic	3%
2) Autoimmune hemolytic Anemia	1%

Blood investigation showed that 70% of the people had high ESR, and 85% of people had hypoalbuminemia, and 50% patients had anemia. Colonoscopy finding suggested that 93% people had contact bleeding and 88% of patients had discontinuous spread of the disease, and 74% patients had pale mucosa, 50% patients had bizarre map like ulcer. Histologically ulcerative colitis patient showed few typical characteristics, 97% of patients had crypt abscess, and 95% of people had cryptitis. Since ulcerative colitis is premalignant condition, 9% of patients histology showed dysplasia/atypia, whereas 2% of patients histology showed underlying carcinoma. Following were few other significant histological characteristic found in our study.

Table:3

Cryptitis	95%
Crypt abscess	97%
Crypt branching	66%
Mucinous depletion	80%
Lamina propria infiltrated with neutrophils/lymphocytes/eosinophils	100%
Lamina propria infiltrated with neutrophils/lymphocytes/eosinophils and plasma cells	54%
Mucinous gland depletion	64%
Dysplasia /Atypia	9%
Carcinoma	2%

DISCUSSION:

Many studies showed that Asia and Middle were uncommon geographical areas for ulcerative colitis (UC) compared to Europe, however incidence and prevalence is in rising trend⁽⁵⁾. Our study showed that prevalence of UC more common in male, which is similar to study done in USA by Achenon⁽⁶⁾ but elderly patients were more affected than younger generation, 70% of people are of more than 40 years of age, peak incidence of disease was around 50-60 years of age. Most common symptom was Bloody diarrhea(80%), and 60% people were presented with tenesmus, The frequency of these symptoms were similar to a study done by Kornbluth et al⁽⁷⁾. Patients might have systemic symptoms including fever, fatigue, and weight loss. Patients might also have dyspnea and palpitations due to anemia secondary to iron deficiency from blood loss, anemia of chronic disease. In our study 37% of patients had significant weight loss and 28% patients presented with fever.

Although UC primarily involves the bowel, it is associated with multiple pathologies in other organ systems called extraintestinal manifestations. According to silverberg study 25% of people had extraintestinal manifestations during their lifetime⁽⁸⁾ where as In our study 38% of people had extraintestinal manifestations which suggest that UC with extraintestinal manifestations is common in our population compared to the western population. Among extraintestinal manifestations joint involvement in the form of Arthritis was commonest with 16% of patients, which is similar to study done by Monsén U.⁽⁹⁾ In our study found that 5% of people had Erythema nodosum, 10% of patient had fatty liver, 3% of patients had primary sclerosing cholangitis and 3% patient had liver fibrosis. Ocular extraintestinal manifestations includes -Uveitis iritis, episcleritis, scleromalacia, which was not found in our study.

Blood involvement includes Anemia due to iron, folate, or vitB12 deficiency or autoimmune hemolytic anemia, anemia of chronic disease. Our study showed 3% people had thromboembolic complication like DVT, and 1% had autoimmune hemolytic anemia. Airway and parenchymal lung disease includes Pulmonary fibrosis, bronchitis, necrobiotic nodules, acute laryngotracheitis, interstitial lung disease, sarcoidosis. Abnormal pulmonary function tests without clinical symptoms are common, up to 50% of cases will be having abnormal chest CTI⁽¹⁰⁾. Our study showed 3% of patient had pulmonary involvement mainly in the form of pulmonary fibrosis.

Study also showed that disease is associated with high ESR and

hypoalbuminemia, and half of the patients were anemic. Colonoscopy showed characteristically finding such as contact bleeding with discontinued spread of the disease.

histology showed very characteristic finding such as had crypt abscess and crypt branching with cryptitis. Since ulcerative colitis is premalignant condition, 9% of patients histology showed dysplasia or atypia, whereas 2% of patients histology was showing underlying carcinoma, which indicates that UC is premalignant condition and colonoscopy and evaluation at regular interval is needed to take precaution against colorectal cancer.

CONCLUSION-

Ulcerative Colitis is more prevalent in males than females, and common in elderly, with bloody diarrher mucus discharge and tenesmus being most commonest intestinal manifestation. Extra-intestinal manifestations mainly related to joints, hepatic and skin involvement. Typical histological pattern includes Lamina propria infiltrated with Neutrophils, Lymphocytes; Crypt abscess, Cryptitis, Crypt branching. Ulcerative colitis an important premalignant condition, colonoscopy and evaluation at regular interval is needed to take precaution against colorectal cancer.

Conflicts of interest

Author has not received any grants from funding agencies.

DISCLOSURE:

This study was conducted as a part of post graduate publication in a medical college affiliated to Rajiv Gandhi University of health sciences, Bengaluru, Karnataka, India.

REFERENCES

- 1) Danese S, Fiocchi C. Etiopathogenesis of inflammatory bowel diseases. *World J Gastroenterol.* 2006;12(30):4807-12.
- 2) Peeters M, Cortot A, Vermeire S, Colombel JF. Familial and sporadic inflammatory bowel disease: different entities? *Inflamm Bowel Dis.* 2000N;6(4):314-20.
- 3) HB Devlin, D Datta, AW Dellipiani. The incidence and prevalence of inflammatory bowel disease in North Tees Health District. *World J Surg* 1980; 4:183-93.
- 4) Lakatos PL, Fischer S, Lakatos L. Is the epidemiology of inflammatory bowel disease changing in Eastern Europe? *Scand J Gastroenterol.* 2006; 41(7):870-1.
- 5) Sood A, Midha V, Sood N, Bhatia AS, Avasthi G. Incidence and prevalence of ulcerative colitis in Punjab, North India. *Gut* 2003;52:1587-90.
- 6) ACHESON ED. The distribution of ulcerative colitis and regional enteritis in United States veterans with particular reference to the Jewish religion. *Gut.* 1960 Dec;1:291-3.
- 7) Kornbluth A, Sachar DB; Practice Parameters Committee of the American College of Gastroenterology. Ulcerative colitis practice guidelines in adults(update): American College of Gastroenterology, Practice Parameters Committee. *Am J Gastroenterol.* 2004 Jul;99(7):1371-85.
- 8) Silverberg MS, Satsangi J, Ahmad T, Arnott ID, Bernstein CN, Brant SR. Toward an integrated clinical, molecular and serological classification of inflammatory bowel disease: report of a Working Party of the 2005 Montreal World Congress of Gastroenterology. *Can J Gastroenterol.* 2005 Sep;19 Suppl A:5A-36A
- 9) Monsén U, Sorstad J, HELLERS G, Johansson C. Extracolonic diagnoses in ulcerative colitis: an epidemiological study. *Am J Gastroenterol.* 1990 Jun;85(6):711-6
- 10) Tunc B, Filik L, Bilgic F, Arda K, Ulker A. Pulmonary function tests, high-resolution computed tomography findings and inflammatory bowel disease. *Acta Gastroenterol Belg.* 2006 Jul-Sep;69(3):255-60.