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CLINICAL SPECTRUM OF ULCERATIVE COLITIS IN KASHMIRI POPULATION: FOUR YEARS EXPERIENCE IN A TERTIARY CARE HOSPITAL

Waseem Javid[1]*, Qazi Aamir[2], Showkat A. Kadla[3], Nisar A. Shah[4]

[1*,2,3,4]Department of Medical Gastroenterology and Hepatology, Government Medical College, Srinagar 190010, India.

***Corresponding Author:** Waseem Javid
*Email: waseemjavid897@gmail.com

Abstract:

Background: Diagnosing ulcerative colitis (UC) in developing countries with limited healthcare facilities and high endemicity for parasitic infestations, infective diarrhea, and functional gastrointestinal disorders is challenging. Understanding the clinical and epidemiological profile of patients with UC can facilitate the recognition of disease burden, patterns, and treatment responses, thereby rationalizing management approaches. Data on this topic are scarce in Jammu and Kashmir. No studies have been conducted in the Kashmir division, where significant genetic and environmental influences exist, which is similar to the rest of India. This study aimed to identify the clinical and epidemiological profiles of patients attending a tertiary care hospital in the Kashmir Valley.

Methods: The present study was a hospital-based prospective cross-sectional observational investigation conducted in the Department of Gastroenterology, GMC Srinagar, Jammu, and Kashmir, India. All 114 consecutive newly diagnosed patients aged ≥ 17 years were enrolled over 49 months from December 2019 to January 2024. The demographic characteristics and clinical profiles of the patients were examined.

Results: In total, 114 newly diagnosed patients were included. Seventy-eight (59.6%) patients were males and forty-six (40.4%) females. The mean age of the patients at diagnosis was 38 years. The most prevalent symptom was hematochezia (63.2%), followed by chronic diarrhea (28%). A family history was observed in 12 patients (10.5 %). Eighty-two patients (71.9 %) required hospital admission for complicated UC. Joint involvement (25%) was the most common extra-intestinal manifestation (EIM), followed by cutaneous and oral involvement (6%). Surgical intervention during follow-up was necessary for 8.8% of the patients. Corticosteroids and azathioprine were administered to 58 patients (67 %), followed by biological agents in 10 patients (8.8%). Novel Janus kinase (JAK) inhibitors were used in 36 (31.6%) patients after azathioprine intolerance or treatment failure. The most frequent disease location was the left-sided colitis. One hundred and eight patients achieved remission, while six died.

Conclusions: This study represents the first investigation into the clinical and demographic profile of UC in Kashmir Valley, India. The higher prevalence of complicated UC necessitates greater utilization of healthcare resources in this cohort, including hospitalization, surgery, and biological treatment.

Keywords: Ulcerative colitis, Montreal classification, Biological.

INTRODUCTION

Ulcerative colitis (UC) is a chronic inflammatory bowel disease (IBD) characterized by inflammation and ulceration of the colon and rectum, leading to symptoms such as chronic diarrhea, abdominal pain, rectal bleeding, and an impact on patients' quality of life. UC's clinical presentation, risk factors, and course of UC vary across regions owing to genetic, environmental, and lifestyle factors. Understanding these regional variations is crucial for developing tailored healthcare approaches that address the local factors that impact disease management and patient outcomes. In Kashmir, UC presents distinctive challenges shaped by environmental and sociocultural factors. Dietary practices, harsh winters, and variable healthcare access contribute to the presentation, severity, and management of this disease. The genetic background of the Kashmiri population may influence susceptibility and treatment response, necessitating examination of UC within this regional context. However, limited research on UC in Kashmir has resulted in a knowledge gap regarding how this population experiences and manages this disease. This study aimed to review the clinical spectrum of UC in Kashmir, including its common presentations, risk factors, and challenges in its diagnosis and treatment. This investigation sought to provide insights that can inform improved healthcare strategies and enhance outcomes for patients with UC in the region.

METHODOLOGY

The current study was a hospital-based prospective cross-sectional observational study conducted in the Department of Gastroenterology, GMC Srinagar, Jammu, and Kashmir, India. All 114 consecutive newly diagnosed patients aged ≥ 17 years were enrolled over 49 months from December 2019 to January 2024. The demographic characteristics and clinical profiles of the patients were studied. Participants were included after obtaining written informed consent and permission from the Institutional Ethics Committee (IEC/GMC/DNB-GE/006).

STATISTICAL ANALYSIS

The measured parameters are expressed as mean ± standard deviation. The significance of differences between studied groups was measured using chi-square tests. Association analysis was performed using Pearson or Spearman correlation analysis. All statistical analyses were performed using the SPSS Version 20 (SPSS Inc. Chicago IL). Statistical significance was set at p value < 0.05.

RESULTS

In total, 114 patients with newly diagnosed ulcerative colitis (UC) patients were included in the study. 78 (59.6%) patients were male and 46 (40.4%) were female, with a mean age at diagnosis of 38 years. The most frequent symptom was bloody stools (63.2%), followed by chronic diarrhea (28%). A family history of UC was reported in 12 (10.5 %) patients.

Table1 Demographics and Age at Diagnosis and Clinical presentation

Characteristic	Number (n)	Percentage (%)
Total no. of patients	114	100
Male	78	59.6
Female	46	40.4
Mean age at diagnosis(yrs)		38
Presence of bloody stools		63.2
Chronic diarrhoea		28
Family history of UC	12	10.5

82 patients (71.9%) were hospitalized for evaluation and management of complicated UC. The most common extra-intestinal manifestation was joint involvement (25%), followed by skin and oral involvement (6%).

Table 2 Hospitalization and Extraintestinal Manifestations (EIMs):

Characteristic	Number (n)	Percentage (%)
Patients hospitalized	82	
Joint involvement		25
Skin and oral involvement		6

Corticosteroids and azathioprine were administered to 58 patients (67%), whereas 10 patients (8.8%) received biologic therapies. Janus kinase (JAK) inhibitors were used in 36 patients (31.6%) with azathioprine intolerance or treatment failure.

Table 3 Treatment Patterns:

Characteristic	Number(n)	Percentage (%)
Corticosteroids	58	67
Biological therapies	10	8.8
JAK inhibitors	36	31.6

Left-sided colitis is the most common type of disease. During follow-up, 8.8% of the patients required surgery. By the end of the study, 108 patients had achieved remission, while 6 patients had died.

Table 4 Disease Location and Outcomes

Characteristic	Number (n)	Percentage (%)
Most common disease location(left sided colitis)	56	49.1
Surgical intervention required	10	8.8
Patients in remission	108	94.7
Patients who passed away	06	5.3

Interpretation

The study cohort showed a slight male predominance, with 59.6% of the patients being male. This aligns with global data indicating that both males and females are susceptible to UC, although the male skew may reflect local factors. The mean age at diagnosis was 38 years, suggesting that UC frequently manifests in mid-adulthood. This timing may have socioeconomic implications as UC onset at this age can interfere with employment, familial responsibilities, and quality of life. Bloody stools were the most prevalent symptom (63.2%), followed by chronic diarrhea (28%), which is consistent with the typical UC presentation. These symptoms may facilitate the early diagnosis and suspicion in primary care. Notably, 10.5% of the patients reported a family history of UC, emphasizing the potential genetic predisposition. This rate of familial association may indicate that screening close relatives could be valuable in the early detection of UC. Most patients (71.9%) required hospitalization, suggesting a significant disease burden. This high rate likely indicates either high disease severity at diagnosis or complications that necessitate inpatient care. Extraintestinal manifestations were most common, particularly joint involvement (25%), followed by skin and oral involvement (6%). These findings underscore the necessity for a multidisciplinary approach to UC management given that joint, skin, and oral symptoms may require consultations beyond gastroenterology.

Treatment approaches included corticosteroids and azathioprine in 67% of the patients, underscoring their role as cornerstone therapies for UC management. Biologics were used in 8.8% of patients, aligning with global trends for patients unresponsive to conventional treatment. Notably, newer JAK inhibitors were prescribed to nearly one-third of the patients (31.6%) who experienced intolerance or lack of response to azathioprine. This reflects a shift toward incorporating novel therapies in resistant cases, although high usage could indicate significant medication intolerance or disease severity. The predominance of left-sided colitis is consistent with the global UC data.

Notably, 108 patients achieved remission during follow-up, indicating effective management in the majority of patients. However, the observed mortality (six patients) underscores the serious risks associated with UC in cases of delayed diagnosis, complications, or treatment-resistant disease.

Discussion

This study elucidates the distinctive aspects of ulcerative colitis (UC) among newly diagnosed patients in Kashmir, contributing regional insights to global UC research. The demographic distribution, clinical presentation, and treatment patterns observed enhance our understanding of how genetic, environmental, and healthcare factors influence UC management in this population. Our findings reveal a male predominance (59.6%) among UC patients, aligning with some global studies but contrasting with others reporting a slight female preponderance (1). The mean age at diagnosis (38 years) indicates that UC often manifests during mid-adulthood, consistent with studies showing peak incidence in the third and fourth decades of life(2). This age factor is particularly relevant in Kashmir, where UC can affect working-age adults, potentially leading to socioeconomic challenges owing to reduced work capacity and healthcare needs. The predominant symptoms reported were bloody stools (63.2%) and chronic diarrhea (28%), aligning with the classic UC symptoms observed worldwide. These symptoms should serve as critical indicators for primary care providers in Kashmir, facilitating differentiation of UC from other gastrointestinal conditions (3). Notably, a family history of UC was present in 10.5% of patients, supporting a genetic component in UC pathogenesis, consistent with findings in other populations where familial links have been documented (4). A substantial proportion (71.9%) of the patients required hospitalization for initial evaluation and management, potentially indicating disease severity at diagnosis or limited outpatient care for complex UC cases in Kashmir. Hospitalization rates in other regions vary, with higher rates often associated with diagnostic delays or inadequate access to outpatient specialty care (Lee et al. 2018)5. Extraintestinal manifestations, particularly joint involvement (25%), are prevalent, aligning with findings that joint-related EIMs are common among patients with UC (6). The presence of EIMs underscores the need for an interdisciplinary approach to managing UC, presenting challenges in resource-limited settings. Left-sided colitis was identified as the predominant disease location, consistent with studies reporting a similar global distribution pattern (7). A high remission rate (108 patients) was achieved, potentially reflecting the effective management protocols and treatment adherence. However, the observed mortality rate (six patients) indicates that UC can still result in severe outcomes, particularly with delayed diagnosis or complications. Similar findings have been reported in settings where healthcare access barriers influence outcomes (8).This study emphasizes the need for enhanced awareness of UC in Kashmir and increased resources for outpatient and specialty care. The high hospitalization rate and frequent use of advanced therapies underscores the importance of early diagnosis, effective outpatient management, and monitoring to prevent complications. Given the prevalence of extraintestinal manifestations, a multidisciplinary approach involving rheumatology, dermatology, and gastroenterology specialists is recommended. In conclusion, our study presents a detailed characterization of UC in Kashmir, revealing a complex disease spectrum that requires early intervention, tailored therapies, and interdisciplinary care. These findings highlight the importance of establishing region-specific UC guidelines and improving access to healthcare for better outcomes in Kashmir.

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