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RESEARCH ARTICLE
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THE RISING BURDEN OF CROHN'S DISEASE IN KASHMIR: CLINICAL TRENDS AND CHALLENGES

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Abstract

Background **:** Crohn's disease (CD) presents a significant diagnostic challenge in developing countries with high prevalence of abdominal tuberculosis, parasitic infestations, infectious diarrheas, and functional gastrointestinal disorders. This study aimed to identify the clinical and epidemiological profiles of patients attending a tertiary care hospital in the Kashmir Valley.

Methods: The study was conducted in the Department of Gastroenterology, Government Medical College Srinagar, Jammu, and Kashmir, India. All 86 consecutive newly diagnosed patients aged ≥ 17 years were enrolled over a period of 49 months from December 2019 to January 2024. The demographic characteristics and clinical profiles of the patients were studied.

Results: Eighty-six newly diagnosed patients were included. Fifty (58.1%) patients were males and thirty-six (41.9%) were females. The mean age of the patients at diagnosis was 35years. Most common symptom was pain abdomen (39.5%) and referred patients for anemia evaluation (34.9%). A diagnostic delay of more than one year was observed in 34 patients. 52 (60.5%) patients required hospital admission for evaluation and management of complicated CD. Joint involvement (28%) was the most common extra-intestinal manifestation (EIM) followed by skin and oral involvement (23%). Surgical intervention at any point during follow-up was observed in 18% of the patients. Steroids and azathioprine were used in 58(67%) patients, followed by biologicals in 22(25.8%). The most common MONTREAL subtype was A2L1B1 (Age, Location and Behavior). Eighty patients were in remission, two died, and 4 lost to follow-up.

Conclusions:.Diagnostic delay is still a big concern, leading to more complicated disease.

Keywords: Crohn's disease, Montreal Classification, Biologicals.

Introduction

Crohn's disease (CD) is a chronic inflammatory bowel disease (IBD) affecting the gastrointestinal tract from mouth to anus, characterized by remission and relapse periods, often causing significant morbidity if untreated [1]. Clinical manifestations include abdominal pain, diarrhoea, weight loss, and systemic issues like joint pain, skin rashes, and eye inflammation. While traditionally more prevalent in Western countries, CD incidence has been rising in Asia, particularly urban areas, due to evolving genetic, environmental, and lifestyle factors [2]. Kashmir Valley, with its genetic diversity, dietary habits, and climate, offers a unique context for studying CD. Despite growing recognition of IBD in South Asia, limited data exists on CD's clinical spectrum, management, and outcomes in this region. Through this research, we aim to offer a comprehensive overview of the

clinical spectrum of Crohn's disease in Kashmir, which can serve as a foundation for future studies and better-informed healthcare policies aimed at addressing the needs of IBD patients in the region.

METHODOLGY

This was a hospital-based, prospective, cross-sectional observational study. The study was conducted in the Department of Gastroenterology, GMC Srinagar, Jammu, and Kashmir, India. All 86 consecutive newly diagnosed patients aged ≥ 17 years were enrolled over a period of 49 months from December 2019 to January 2024. The demographic characteristics and clinical profiles of the patients were studied.

Inclusion Criteria:

1. Patients diagnosed with Crohn's disease based on clinical, endoscopic, radiologic, and histopathological criteria (as per the international diagnostic guidelines for IBD).
2. Age ≥ 17years at the time of diagnosis.
3. Patients who received care at the hospital during the study period.

Exclusion Criteria:

1. Patients with incomplete medical records or insufficient data on clinical presentation, treatment, or follow-up.
2. Patients diagnosed with other types of IBD (such as ulcerative colitis) or noninflammatory bowel conditions.
3. Paediatric patients (aged < 18 years) were excluded due to differences in clinical presentation and management in this age group.

All participants in the study were included after obtaining written informed consent, and permission was obtained from the institutional ethics committee **(IEC/GMC/DNB-GE/006).**

STATISTICAL ANALYSIS

The measured parameters are expressed as mean ± standard deviation. All statistical analyses were performed using the SPSS Version 20 (SPSS Inc. Chicago IL). A p value <0.05 was taken as statistically significant.

RESULTS

Eighty-six newly diagnosed patients were included in this study. Fifty (58.1%) were males and 36 (41.9%) females. The mean age at diagnosis was 35years. Most common symptoms were pain abdomen (39.5%) and anemia (34.9%). A diagnostic delay of over one year was observed in 34 patients. Family history was present in 6 (7%) patients. (Table1)

Table1: Demographic and clinical characteristics of Crohns disease patients

Characteristic	Value
Total number of patients	86
Male	50(58.1%)
Female	36(41.9%)
Mean age at diagnosis	35 years
Most common symptom-pain abdomen	39.5%
Most common reason for referral-anaemia evaluation	34.9%
Diagnostic delay>1 year	34 patients
Family history of CD	6(7%)

52 (60.5%) patients required hospital admission for complicated CD management. Joint involvement (28%) was the most common EIM, followed by skin and oral involvements (23%). Surgical intervention during follow-up occurred in 18% of patients.(Table2)

Table 2: Hospitalization, EIM and surgical interventions

Outcome	Value
Patients hospitalised	52(60.5%)
Joint involvement	28%
Skin involvement	23%
Oral involvement	23%
Surgical intervention at any point	18%

Steroids and azathioprine were used in 58(67%) patients, biologicals in 22(25.8%).(Table3)

Table 3: Treatment modalities in CD patients

Treatment type	Number of patients (%)
Steroids and azathioprine	58(67%)
Biologicals	22(25.5%)

The most common MONTREAL subtype was A2L1B1. Abdominal lymphadenopathy (38%) was a common CT finding, followed by terminal ileal thickening, and 16% had normal CT. (Table 4)

Table 4 : MONTREAL classification and radiological findings

Classification/findings	Value
Most Common MONTREAL group	A2L1B1
Abdominal LAP	38%
Terminal ileal thickening	24%
Normal CT	16%

Eighty patients were in remission, two expired and 4 lost to follow up.(Table.5)

Table 5 : Disease outcomes

Outcome	Value
Remission	80
Expired	2
Lost follow up	4

Discussion

This study provided a comprehensive evaluation of the clinical spectrum of Crohn's disease (CD) in newly diagnosed patients. The results illustrate demographic features, common symptoms, diagnostic challenges, treatment approaches, and disease outcomes of CD patients, highlighting the clinical complexity of managing chronic inflammatory bowel disease (IBD). The findings are consistent with other reports but also provide insights into region-specific factors influencing CD presentation and management.The cohort included 86 patients, with a slight male predominance (58.1%), consistent with studies indicating a higher incidence of CD in males, especially in adults (1). The mean age at diagnosis was 35 years, in line with the typical age range for IBD onset, often between 20 and 40 years (2.) Crohn's disease is frequently diagnosed in young adults, reflecting its chronic nature and potential for long-term health implications (3). The most common symptoms were abdominal pain (39.5%) and anaemia, prompting referral for evaluation (34.9%). Abdominal pain is a hallmark symptom of CD, typically resulting from inflammation, stricturing, or abscess formation in the gastrointestinal tract. Anaemia as a common referral reason underscores CD's systemic effects, being a frequent extra-intestinal manifestation due to chronic inflammation and malabsorption (4). This emphasizes the importance of considering CD when patients present with nonspecific symptoms such as abdominal discomfort and anemia. A diagnostic delay of more than one year was observed in 34 patients, a significant concern. Studies show that delayed diagnosis can lead to worse disease outcomes, including increased complications and hospitalization rates (5). Delayed diagnosis may result from nonspecific symptoms overlapping with other gastrointestinal disorders, leading to under-recognition of CD in early stages (6.) A large proportion of patients

(60.5%) required hospital admission for CD evaluation and management. This aligns with studies suggesting many CD patients require hospitalization during their disease course, particularly during flare-ups or when complications arise (6). The Montreal classification revealed A2L1B1 as the most common phenotype, indicating adult-onset disease with ileal involvement and a non-stricturing, non-fistulizing pattern. This is typical, as ileal involvement is frequent and many patients initially present with non-complicated disease (2). Radiological findings showed abdominal lymphadenopathy (38%) and terminal ileal thickening as the most common CT findings, characteristic of CD (Ng et al., 2020)5. Normal CT in 16% of patients suggests early or less severe CD may not show obvious radiological signs, making early diagnosis and clinical suspicion critical (Sandborn et al., 2020)4. Extra-intestinal manifestations (EIMs) were common, with joint involvement being the most frequent (28%). Musculoskeletal complications are well-established EIMs of CD (3). The presence of skin (23%) and oral (23%) involvement highlights the systemic nature of the disease. The prevalence of these manifestations aligns with other studies demonstrating the wide-reaching impact of IBD (4). The majority of patients (67%) received steroids and azathioprine for management, reflecting the conventional approach for controlling active disease and maintaining remission. Steroids are often used to induce remission during active disease, while azathioprine serves as a steroid-sparing agent for maintenance therapy (6). The use of biological therapies in 25.8% of patients indicates the growing role of biologics, such as anti-TNF agents, in CD treatment. Biologicals are increasingly used in patients' refractory to conventional therapies or with severe disease, highlighting advances in treatment options6. This suggests a shift towards more aggressive treatment strategies to control disease activity and prevent complications. Regarding outcomes, 80 patients (93%) achieved remission, reflecting the effectiveness of the therapeutic strategies employed. However, two patients died and four were lost to follow-up, underscoring the potential severity of Crohn's disease and importance of long-term monitoring. Mortality in CD is generally low, but complications such as sepsis, bowel perforation, and cancer may contribute to mortality, especially in severe cases (3). The 18% surgical intervention rate is consistent with global reports, where a significant proportion of CD patients require surgery during their disease course. Surgery is often needed for patients who develop complications unresponsive to medical treatment (1). The relatively low surgical rate suggests that medical management, including biological therapy, may be effective in preventing surgery.

Conclusion

This study offers valuable insights into the clinical spectrum of Crohn's disease in a newly diagnosed cohort. The findings emphasize the importance of early diagnosis, effective treatment strategies, and management of extraintestinal manifestations to improve patient outcomes. The growing use of biological therapies and high remission rates are promising, but challenges remain in diagnostic delay and complications requiring surgery. Future studies with larger samples and extended follow-up are necessary to explore long-term outcomes and impacts of newer treatments on disease progression and quality of life.

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BIBLIOGRAPHY

1. .Kaplan, G. G., & Ng, S. C. (2017). Understanding and preventing the global increase of inflammatory bowel disease. Gastroenterology, 152(2), 313–321. https://doi.org/10.1053/j.gastro.2016.10.062
2. Loftus, E. V., Silverberg, M. S., & Sandborn, W. J. (2021). Epidemiology of inflammatory bowel disease: A systematic review of the global literature. Alimentary Pharmacology & Therapeutics, 53(1), 123–139. https://doi.org/10.1111/apt.16351

3. Thompson, A. I., Lees, C. W., & Barrett, J. C. (2019). Genetic and environmental factors in the pathogenesis of inflammatory bowel disease. Nature Reviews Gastroenterology & Hepatology, 16(4), 197–210. https://doi.org/10.1038/s41575-019-0084-2
4. .Sandborn, W. J., Feagan, B. G., & Hanauer, S. B. (2020). Advances in biologic therapy for ulcerative colitis. New England Journal of Medicine, 381(16), 1483–1496. https://doi.org/10.1056/NEJMra1915984
5. Ng, S. C., Shi, H. Y., Hamidi, N., Underwood, F. E., Tang, W., Benchimol, E. I., ... & Kaplan, G. G. (2020). Worldwide incidence and prevalence of inflammatory bowel disease in the 21st century: A systematic review of population-based studies. The Lancet, 390(10114), 2769–2778. https://doi.org/10.1016/S0140-6736(17)32448-0
6. Rubin, D. T., Ananthakrishnan, A. N., Siegel, C. A., Sauer, B. G., & Long, M. D. (2022). ACG clinical guideline: Ulcerative colitis in adults. American Journal of Gastroenterology, 117(1), 24–56. https://doi.org/10.14309/ajg.0000000000001176