

Inflammatory Bowel Disease in the Elderly

Rachid El Jim^{1,2}, Chaimae Maroute^{1,2}, Asmae Lamine^{1,2}, Maria Lahlali^{1,2}, Hakima Abid^{1,2}, Nada Lahmidani^{1,2}, Amine El Mekkaoui^{1,2}, Mounia El Yousfi^{1,2}, Dafr-Allah Benajah^{1,2}, Sidi Adil Ibrahimi^{1,2}, Mohammed El Abkari^{1,2}

¹Hepato-Gastroenterology Department, Hassan II University Medical Center, Fez, Morocco ²Faculty of Medicine, Dentistry and Pharmacy, Sidi Mohammed Ben Abdellah University, Fez, Morocco Email: rachid.eljim@usmba.ac.ma

How to cite this paper: El Jim, R., Maroute, C., Lamine, A., Lahlali, M., Abid, H., Lahmidani, N., El Mekkaoui, A., El Yousfi, M., Benajah, D.-A., Ibrahimi, S.A. and El Abkari, M. (2025) Inflammatory Bowel Disease in the Elderly. *Open Journal of Gastroenterology*, **15**, 376-389.

https://doi.org/10.4236/ojgas.2025.157035

Received: June 25, 2025 **Accepted:** July 19, 2025 **Published:** July 22, 2025

Copyright © 2025 by author(s) and Scientific Research Publishing Inc. This work is licensed under the Creative Commons Attribution International License (CC BY 4.0).

http://creativecommons.org/licenses/by/4.0/

<u>____</u>

Open Access

Abstract

Introduction: The age of onset of chronic inflammatory bowel disease (IBD) is a major prognostic factor. Although these diseases can appear at any age, they generally tend to start early in life. However, according to several studies, a second peak in incidence may occur after the age of sixty. Our study aims to analyze the clinical characteristics of patients over 60 years of age at the time of diagnosis of their IBD, to follow the evolution of their state of health, and to evaluate the efficacy of the treatments administered. Methods: This is a retrospective, descriptive, cross-sectional study conducted over an 11-year period (2013-2024) at the Hassan II University Hospital in Fez, Morocco. All adult IBD patients diagnosed at 60 years of age were included. Data collected included demographic characteristics, disease phenotype and location, comorbidities, extra-intestinal manifestations, complications, treatments administered and clinical course. The Montreal Classification was used to classify CD and UC. Statistical analysis was performed using Microsoft Excel software, with statistical significance set at p < 0.05. Results: Of the 403 patients included, 14 (3.5%) were aged 60 or older at the time of diagnosis, with a mean age of 70.71 years. The population was predominantly male (64.4%). Among these patients, 8 were diagnosed with ulcerative colitis (UC) and 6 with Crohn's disease (CD). Comorbidities were common, affecting 71.4% of patients, primarily hypertension and diabetes. The mean time to diagnosis was 23 months for CD and 1.7 months for UC. The most frequent forms of UC were left-sided colitis and pancolitis, whereas CD predominantly affected the colon and ileocolon. Four patients received 5-ASA monotherapy, four patients were treated with anti-TNF alpha therapy (infliximab or adalimumab) alone, and four patients received azathioprine monotherapy. Corticosteroids were required in 3 patients. Notably, some patients received combination or sequential therapies based on disease severity and response. Three patients underwent surgical intervention, generally due to severe acute colitis refractory to medical therapy. The hospitalization rate was 71%, with a mean hospital stay of 23.14 days. The mortality rate was 14%. **Conclusion:** IBD in the elderly presents specific diagnostic and therapeutic challenges due to co-morbidities and drug interactions. Management needs to be tailored to a multidisciplinary approach involving gastroenterologists, geriatricians and other specialists. A better understanding of the clinical and evolutionary characteristics of these patients could help optimize therapeutic and prognostic strategies.

Keywords

Inflammatory Bowel Disease (IBD), Elderly Patients, Crohn's Disease (CD), Ulcerative Colitis (UC)

1. Introduction

Inflammatory bowel disease (IBD), which includes Crohn's disease and ulcerative colitis, is often perceived as a condition primarily affecting young adults [1]. Nevertheless, a notable fraction of cases are identified in people aged 60 and over, representing around 10% - 15% of the IBD patient population [2].

IBD in the elderly presents a number of clinical peculiarities compared with the younger population. For example, the manifestation of Crohn's disease in the elderly is frequently marked by isolated colonic involvement, and tends to follow a relatively milder clinical course, characterized by a lower incidence of complications, notably fistulas or strictures [2].

The diagnosis of IBD in the geriatric population can occasionally prove to be complex, owing to the existence of concomitant medical conditions and the nonstandard manifestation of clinical symptoms. Classic manifestations, such as abdominal pain, chronic diarrhea and anemia syndrome, may be mistakenly attributed to other pathologies common in this age group. In addition, the higher prevalence of certain differential diagnoses, notably ischemic or infectious colitis, calls for increased vigilance in the clinical evaluation of these patients. All these factors can delay the diagnosis of IBD in the elderly [3].

The general strategy for treating IBD in older patients should theoretically be similar to that in younger patients, but unique characteristics of this population would advocate for appropriate adaptations. Elderly individuals often have multiple comorbidities and the number of medications they take is typically higher, raising the risk of adverse effect and interaction. For example, prescribing corticosteroids or prednisone to patients with IBD increases the risk of osteoporosis, diabetes mellitus and hypertension in the elderly [2].

The elderly population is disproportionately affected by IBD-related complications. More specifically, thromboembolic events, Clostridium difficile infections and worsening of pre-existing comorbidities are significantly more frequent and linked to increased mortality in this particular population. These factors underline how crucial it is to adopt a multidisciplinary approach, integrating multiple specialties including the knowledge of geriatricians, dieticians, gastroenterologists and other specialists who work with elderly IBD patients [4].

The aim of our study is to analyze the clinical characteristics of patients over 60 years of age at the time of diagnosis of their IBD, to monitor the evolution of their state of health, and to evaluate the efficacy of the treatments administered.

2. Methods

This retrospective, descriptive, and cross-sectional study was conducted over 11 years (2013-2024) and included all adult patients with inflammatory bowel disease followed at the Hassan II University Hospital Center in Fez, Morocco. This university hospital serves a large population in central Morocco, estimated at approximately 4,468,000 inhabitants, representing 12.1% of the national population, according to the 2024 census. Its gastroenterology department is a regional reference center for the management of IBD.

The study recruited patients diagnosed with Crohn's disease (CD) or ulcerative colitis (UC) who were 60 years or older at the time of diagnosis. Among the 403 IBD patients registered during the study period, only 14 patients met the criteria for elderly-onset IBD (diagnosis at age \geq 60). Subsequent analyses in this study exclusively concern these 14 elderly-onset cases.

Patient data were collected and reviewed using a detailed data collection form, with incomplete records excluded. The data were meticulously extracted from patient files, covering a broad range of parameters, including demographic characteristics, disease duration and progression, phenotype, anatomical location, comorbidities, family history, extraintestinal manifestations, disease complications, surgical interventions, treatment regimens, and overall disease trajectory.

The diagnosis of IBD in this study was established using classical clinical, endoscopic, radiological, and histopathological criteria. Patients aged 60 years or older were classified as elderly patients. Additionally, patients were categorized based on the Montreal classification. The age at disease onset was classified as follows: A1 diagnosis before 16 years A2 diagnosis between 17 and 40 years A3 diagnosis after 40 years.

For CD: The disease location was classified as L1 (terminal ileum) L2 (colonic) L3 (ileocolonic) and L4 (upper gastrointestinal tract). The disease phenotype was classified as B1 inflammatory B2 stenosing and B3 penetrating. Perianal fistulizing disease was not considered a penetrating form but was regarded as a disease behavior modifier p.

For UC: The disease extent was described as E1 (ulcerative proctitis) E2 (leftsided UC) or E3 (pancolitis). The disease severity was defined as S0 (clinical remission) S1 (mild UC) S2 (moderate) UC and S3 (severe UC).

Data were entered and analyzed in Microsoft Excel version 2016; qualitative data were compared using the chi-square (χ^2) test. A value of p < 0.05 was considered statistically significant.

This retrospective study was conducted in compliance with the ethical princi-

ples of the Declaration of Helsinki, with data fully anonymized prior to analysis and treated as strictly confidential.

3. Result

3.1. Epidemiological Data

A total of 403 patients were included in the study. The proportion of individuals aged 60 years or older was low, accounting for 3.5% (n = 14), with a predominance of males, as reflected by a female-to-male ratio of 0.56 (males: 9, females: 5). The mean age at diagnosis was 70.71 years (range: 66 - 81 years).

Among these patients, 8 were diagnosed with ulcerative colitis (UC) and 6 with Crohn's disease (CD). The mean BMI was 20.19 kg/m². Comorbidities were present in 71.4% of patients, whereas 29% had no associated comorbid conditions. two patients had a history of active smoking at the time of diagnosis, one exsmoker, and no patients had a family history of IBD. The demographic characteristics are elaborated upon in **Table 1**.

| Variables | CD (n = 6) | UC (n = 8) | Total (n = 14) | p-value |
|---------------------------------------|--------------|---------------|------------------|---------|
| Age (years) | 68.33 ± 1.89 | 72.5 ± 4.97 | 70.71 ± 4.46 | 0.072 |
| Gender (%) | | | | |
| Male | 4 (66) | 5 (62.5) | 9 (64.4) | 0.293 |
| Female | 2 (34) | 3 (78.5) | 5 (35.6) | |
| Comorbidities (%) | | | | |
| Hypertension | 1 (16) | 2 (25) | 3 (21.4) | - |
| Diabetes mellitus | 1 (16) | 1 (12.5) | 2 (14.2) | - |
| Liver disease | 0 | 1 (12.5) | 1 (7) | - |
| Medical history (%) | | | | |
| Smoker | 1 (16) | 1 (12.5) | 2 (14.2) | 1 |
| Non-Smoker | 4 (66) | 7 (87.5) | 11 (78.5) | 0.131+ |
| Ex-Smoker | 1 (16) | 0 (0) | 1 (7) | - |
| Tuberculosis (TB) | 1 (16) | 0 (0) | 1 (7) | - |
| Appendectomy | 2 (32) | 0 (0) | 2 (14) | - |

Table 1. Epidemiological characteristics of patients.

3.2. Clinical Data

Crohn's Disease

The clinical presentation of Crohn's disease was primarily characterized by chronic watery diarrhea associated with abdominal pain in 66.7% (n = 4) of patients, with a mean diagnostic delay of 23 months (range: 4 - 72 months) from symptom onset to diagnosis.

Regarding the phenotype and lesion distribution, the following cases were identified:

- 2 cases of stenosing ileocecal Crohn's disease;
- 2 cases of colonic Crohn's disease;
- 1 case of ileal Crohn's disease;
- 1 case of ileocolic Crohn's disease.

No patients exhibited upper gastrointestinal involvement or ano-perineal lesions.

According to the Harvey-Bradshaw Index (HBI): 3 patients had moderate disease (HBI 8 - 9), 2 had severe disease (HBI \geq 10), and 1 had mild activity (HBI 5).

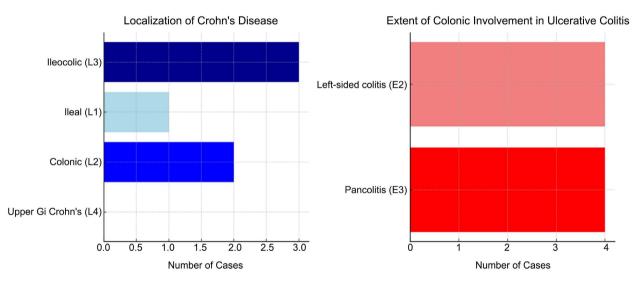
Ulcerative Colitis

Eight patients were diagnosed with ulcerative colitis. The predominant symptom was bloody mucoid diarrhea in 75% (n = 6) of cases, with a mean time to diagnosis of 1.7 months from symptom onset. Colonic involvement was distributed as follows:

- 4 cases of pancolitis;
- 4 cases of left-sided colitis.

Based on the Mayo clinical score, 3 patients had severe disease (Mayo \ge 11), 4 had moderate disease (Mayo: 6 - 10), and 1 patient had mild disease (Mayo: 3).

Figure 1 summarizes the Distribution of Lesion Localization in Crohn's Disease and Ulcerative Colitis.





3.3. Biological Data

Nine patients presented with anemia associated with an inflammatory syndrome (UC: 7, CD: 2). The mean hemoglobin level in the study population was 9.4 ± 1.4 g/dL, with a median of 9.4 g/dL (IQR: 8 - 10.5 g/dL) and extreme values ranging from 8 to 11.8 g/dL.

The C-reactive protein (CRP) level at the time of diagnosis had a mean of 80.1 \pm 81.4 mg/L, with a median of 48.5 mg/L (IQR: 16.3 - 127.8 mg/L) and a range of 7 to 254 mg/L.

Fecal calprotectin was measured in five patients and was found to be positive.

3.4. Therapeutic Data

In our hospital unit, therapeutic decisions are made on a case-by-case basis during a dedicated weekly multidisciplinary team meeting, with an emphasis on personalized and adaptive management, especially in elderly patients who often present with comorbidities and a higher risk of treatment-related complications.

Short-Term Management

At the time of diagnosis or flare-up, treatment was initiated based on disease severity and patient profile.

- Four patients received 5-ASA monotherapy, typically for mild to moderate ulcerative colitis.
- Four patients were treated with anti-TNF alpha agents (infliximab or adalimumab) as monotherapy, mostly in the context of moderate to severe disease activity.
- Four patients were started on azathioprine monotherapy, either as a steroidsparing agent or for maintenance in selected cases.
- Three patients required corticosteroid therapy, used short-term to control acute inflammatory flares.
- One patient received combo-therapy (anti-TNF + azathioprine) from the outset, due to severe disease.

Long-Term Evolution and Treatment Sustainability

Over time, treatment strategies had to be re-evaluated due to varying degrees of response, tolerance, and disease progression:

- Among the individuals who were initially administered 5-ASA or azathioprine as monotherapy, a total of two patients necessitated an escalation of treatment owing to inadequate long-term disease management or the recurrence of symptomatic flares.
- In individuals undergoing anti-TNF treatment, instances of secondary loss of therapeutic response or intolerance were documented in two cases, necessitating a transition to an alternative biologic agent or to surgical intervention.
- One patient who started on corticosteroids could not be weaned off without relapse and was therefore transitioned to immunomodulator therapy.

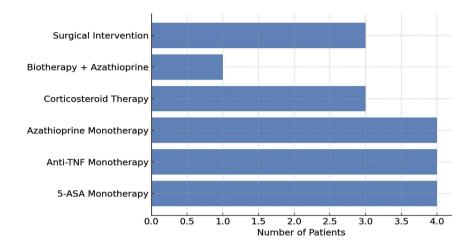
In total, three patients ultimately underwent surgical intervention (colectomy), generally after failure of multiple lines of medical treatment. The therapeutic approaches employed within our cohort are delineated in Figure 2.

3.5. Disease Evolution

In this cohort, 71% of patients required at least one hospitalization, primarily due to disease flares. The mean number of hospitalizations per patient was 1.14, with a median of 1.0 and a standard deviation of 1.03.

Regarding the total duration of hospitalization during the disease course, the mean was 23.14 days per patient, with a median of 18.0 days and a standard deviation of 23.77 days.

The mortality rate was 14% (2 cases). A favorable outcome was observed in six



patients in remission, while six patients are still undergoing treatment optimization.

Figure 2. Treatment distribution in the cohort.

4. Discussion

4.1. Analysis of Epidemiological Findings

The prevalence of individuals aged 60 or over in our study was low, representing 3.5% (n = 14). This demographic profile is in line with a similar study carried out in another region of Morocco, showing a prevalence of 3.77% [5], as well as with a Tunisian study reporting a comparable prevalence of 3.5% [6]. However, these results are still lower than those reported in other studies, where the prevalence of elderly subjects is estimated at between 10% and 15%, as mentioned in a review of the literature [7]. Studies have shown an increased incidence of chronic inflammatory bowel disease in elderly subjects [8].

Gender distribution in IBD can vary, with some studies reporting a higher prevalence in women [6]. However, this is not the case in our study, where there is a slight male predominance, with a sex ratio of 0.56. In addition, a number of studies have highlighted the high prevalence of certain comorbidities, as shown in our study, making the management of these patients more specific than in younger subjects [7] [9].

The reported difference in demographic results between studies is mainly explained by variations in epidemiological and demographic characteristics specific to each region. The higher prevalence observed in Europe could be attributed to an ageing population and longer life expectancy.

4.2. Clinical Presentation

CD

Chronic watery diarrhea and abdominal pain were frequent symptoms, affecting 66.7% of patients in the study. They were also the clinical manifestation reported by M. Zhu and Z. Ran [10] with an average delay in diagnosis of 23 months. This delay in diagnosis could be attributed to the consideration of differential diagnoses, such as ischemic or infectious colitis, which are frequently considered in elderly patients [7] as well as the underestimation of symptoms by some patients and difficulties in accessing care [11]. These factors highlight the challenges in early detection and diagnosis [12].

Our study identified stenosing ileo-caecal Crohn's disease in two cases, colonic Crohn's disease in two cases, and ileal and ileo-colic involvement in one case each, with no upper gastrointestinal involvement. This distribution reflects the pheno-typic variability of Crohn's disease, as shown in the study by Fabricius *et al.* who emphasize that colonic involvement is frequent in this age group [13].



Of the eight patients diagnosed, 75% presented with bloody mucoid diarrhea, with a mean delay in diagnosis of 1.7 months. Colonic involvement was equally divided between pancolitis and left colitis. These observations correspond to typical presentations of UC, characterized in particular by rectal bleeding and diarrhea. Although this symptomatology is common to all age groups, it appears that in the elderly, the rapid onset of symptoms enables earlier diagnosis [14], which may explain the relatively short diagnostic delay compared to Crohn's disease. Furthermore, UC in the elderly is often associated with left-sided colitis, with less extensive involvement than in younger patients [15]. However, pancolitis is not uncommon and can also occur in this demographic group, as our study demonstrates.

4.3. Biological Data

The study of IBD in the elderly highlights significant findings concerning anemia and inflammatory markers in this population. Anemia, a frequent complication of IBD, was observed in nine patients, with a mean hemoglobin level of 9.4 g/dL, indicating moderate anemia. These findings are consistent with observations that elderly IBD patients often have lower hemoglobin levels due to chronic inflammation and nutritional deficiencies [16].

The etiology of anemia in geriatric patients with IBD is multifaceted, stemming from persistent inflammation, insufficient iron levels, and malabsorption phenomena. These elements, which are aggravated by the aging process, necessitate a good strategy for management, encompassing suitable nutritional interventions.

Our investigation reports an average CRP concentration of 80.1 ± 81.4 mg/L, with a median value of 48.5 mg/L, indicating active inflammation. Elevated CRP levels are a key indicator of inflammation in IBD and are associated with disease activity. This aligns with the findings from the study by Kim *et al.* [17], which emphasizes the importance of CRP as a biomarker for inflammation.

Fecal calprotectin levels were measured in a group of five patients. The small number of patients who underwent this test in our study is due to limited access to the analysis, primarily because of its high cost.

All tests returned positive results, confirming the presence of intestinal inflam-

mation. Fecal calprotectin is a well-established biomarker used to assess disease activity in inflammatory bowel disease. Its role as a non-invasive marker for intestinal inflammation is well recognized, making it especially useful for monitoring disease progression and therapeutic responses in IBD patients, particularly in elderly individuals with comorbidities, where endoscopic procedures under sedation may be challenging.

The detection of elevated calprotectin levels indicates active inflammation, which is consistent with the increased C-reactive protein levels observed in our study.

4.4. Medical Therapy

Three patients required corticosteroid therapy, which is often used as a short-term solution to help achieve remission during acute flare-ups of IBD as a bridge. While corticosteroids are effective in reaching remission, long-term use is strongly discouraged because of the significant risk of side effects, especially in older adults.

Elderly patients are more susceptible to complications from corticosteroid use, such as osteoporosis, diabetes, and high blood pressure, making their use in this age group particularly concerning. Therefore, careful monitoring and the early adoption of steroid-sparing strategies are essential to reduce risks and improve long-term disease management [18] [19].

Four patients were treated with 5-ASA monotherapy, which is a standard firstline option for managing mild to moderate ulcerative colitis due to its proven antiinflammatory effects in IBD. Studies indicate that 5-ASA is effective in keeping UC in remission and is generally safe, especially for older adults [18].

Nonetheless, some research pointed out that patients who develop IBD later in life are less likely to start treatment with 5-ASA compared to younger patients, even though its safety is well-established. While 5-ASA is, including gastrointes-tinal issues and kidney problems [20].

Four patients were treated with azathioprine alone, which is an immunosuppressive medication often prescribed for maintaining remission in IBD, especially for those who no longer respond to aminosalicylates or anti-TNF therapies [21]. Azathioprine has shown effectiveness in both older and younger patients with IBD; however, its use in older adults requires careful oversight due to potential risks like myelosuppression and liver toxicity.

Research by Benito *et al.* indicated that thiopurines, including azathioprine, are rarely used in cases of IBD that begin in older age, likely because of safety concerns [22]. Furthermore, one patient in our study was treated with a combination of azathioprine and a biologic agent, a common approach aimed at improving treatment effectiveness and minimizing the risk of immunogenic reactions. Nonetheless, this combination therapy can also heighten the likelihood of adverse effects, particularly in older patients with other health issues, making close monitoring essential [23].

Four patients received treatment with anti-TNF alpha therapy alone. These

agents are commonly used in IBD due to their effectiveness in inducing and maintaining remission, especially in cases of moderate to severe disease [24]. Studies indicate that anti-TNF therapy can be beneficial for elderly IBD patients, although its effectiveness may be reduced in those with elderly-onset IBD compared to younger individuals. Research conducted by Lee *et al.* found that elderly-onset IBD patients treated with anti-TNF therapy had significantly lower rates of clinical and steroid-free remission [25].

Concerns about the safety of anti-TNF therapy in older adults persist, as it has been linked to higher incidences of severe adverse events, such as infections and cancers. Nevertheless, a long-term safety study on infliximab showed no significant difference in serious adverse events between patients receiving treatment and those in the control group, although the use of concomitant steroids was associated with a higher risk of infections [26].

Three patients with IBD required surgery due to severe acute colitis that did not respond to medication. Research has shown that surgical outcomes for older patients with inflammatory bowel disease are similar to those of younger patients, with no significant differences in postoperative mortality or complication rates. For example, a study by Joseph *et al.* found that elderly patients undergoing surgery for ulcerative colitis had similar hospital stays and complication rates compared to younger patients [27]. The decision to proceed with surgery in older patients with inflammatory bowel disease must involve a thorough assessment of their overall health, existing medical conditions, and functional abilities. Additionally, delaying surgery in favor of prolonged medical treatment may increase the risk of complications, as indicated by research from Nørgård *et al.*, which noted a higher rate of surgical intervention in patients with late-onset disease [18].

4.5. Disease Evolution

In our research cohort, 71% of older patients required at least one hospitalization, mainly due to disease flare-ups, with an average of 1.14 admissions per person. The typical length of stay was 23.14 days per individual, highlighting the significant healthcare burden linked to managing IBD in this age group [14]. These findings align with previous studies that have shown higher hospitalization rates among elderly IBD patients, often associated with the severity of the disease and its complications.

Our study also noted a mortality rate of 14%, with two reported deaths, underscoring the serious impact of IBD in older adults. Despite these challenges, six patients achieved remission, while five are still in the process of treatment optimization, highlighting the variability in treatment responses and the need for personalized management strategies.

4.6. Regional Variability in Clinical Presentation and Management

Our therapeutic results highlight a diversity of initial strategies and frequent changes in treatment depending on response and tolerance. Several patients re-

quired adaptation of the therapeutic regimen or escalation, and recourse to surgery was necessary in cases of medical failure. These elements underline the importance of an individualized and flexible approach in elderly IBD patients.

However, this approach is strongly influenced by the regional context. Treatment strategies vary considerably from country to country, depending on healthcare systems, treatment availability, patient profile and economic constraints. In Australasia, elderly patients receive immunomodulators or biotherapies less frequently than younger patients, although remission rates are similar, as shown by the CCCare study [28]. In Europe, vedolizumab is more commonly prescribed in elderly subjects, notably in Belgium [29], while in Poland, discontinuation of biotherapies is more common in comorbid patients due to adverse effects [23]. In our study, biotherapies were used in 5 cases (monotherapy or in combination), reflecting a growing but cautious adoption of these treatments in our context.

In the Middle East and Asia, management remains focused on 5-ASA, with limited use of biotherapies in the elderly, as reported by Gupta *et al.* in India (2022). In Iran, left-colonic forms of UC are more common, while Crohn's disease predominates at ileal level in elderly subjects [30]. This phenotypic heterogeneity is partially reflected in our cohort, where colonic or ileocolic forms are dominant.

In North America, although intensive treatment is less common in elderly patients, clinical outcomes are often better, with higher rates of clinical remission and mucosal healing according to the IBD Qorus cohort [31]. This could be linked to a less aggressive phenotype or better coordination of geriatric care.

These data underline the importance of contextualizing the results of our study in an international perspective. They highlight the need for recommendations adapted to regional specificities, while calling for standardization efforts to ensure equity in the management of IBD in elderly patients. Our cohort illustrates an active but cautious management approach, in line with local constraints and available resources, while also reflecting certain trends observed in other regions.

5. Conclusions

Our study highlights the distinctive clinical nuances and management challenges associated with chronic inflammatory bowel disease in the geriatric population. Although IBD has traditionally been perceived as a condition primarily affecting young adults, a significant fraction of cases occur in people aged 60 and over. Diagnosis in this demographic group is frequently delayed due to the overlap of symptoms with other common geriatric conditions and the coexistence of multiple comorbidities.

Our findings confirm the complex nature of the therapeutic management of elderly patients with IBD, requiring a tailored approach. Although 5-aminosalicylic acids are considered the main treatment modality for mild to moderate cases of ulcerative colitis, the application of immunosuppressive agents and biologic therapies deserves careful consideration due to the increased risk of adverse effects, including infectious complications and neoplastic tumors. Furthermore, the increased susceptibility of elderly patients to corticosteroid-related complications underscores the need for an anticipatory corticosteroid-sparing strategy.

Our results also reveal a high incidence of hospitalizations and a considerable health burden attributable to IBD in the elderly, testifying to the deleterious impact of the disease on this vulnerable population. What's more, the 14% mortality rate underscores the seriousness of the disease and the need for proactive, multidisciplinary management.

Optimizing the management of IBD in elderly patients relies on an individualized strategy, harmonizing the efficacy of therapeutic interventions with their tolerability. Continuous monitoring, rapid implementation of corticosteroid-sparing approaches and close collaboration between gastroenterologists, geriatricians and other specialists are essential to improve patient prognosis and overall quality of life. Further prospective studies are needed to refine therapeutic methodologies and deepen our understanding of the long-term trajectory of IBD in this aging cohort.

Conflicts of Interest

The authors declare no conflicts of interest regarding the publication of this paper.

References

- Rocchi, A., Benchimol, E.I., Bernstein, C.N., Bitton, A., Feagan, B., Panaccione, R., *et al.* (2012) Inflammatory Bowel Disease: A Canadian Burden of Illness Review. *Canadian Journal of Gastroenterology*, 26, 811-817. <u>https://doi.org/10.1155/2012/984575</u>
- [2] (2025) Prise en charge d'une personne âgée atteinte de MICI. FMC-HGE. <u>https://www.fmcgastro.org/texte-postu/postu-2018-paris/prise-en-charge-dune-personne-agee-atteinte-de-mici/</u>
- [3] (2025) Maladies inflammatoires chroniques de l'intestin (MICI). Inserm, La science pour la santé. Inserm. https://www.inserm.fr/dossier/maladies-inflammatoires-chroniques-intestin-mici/
- [4] Ananthakrishnan, A.N., Nguyen, G.C. and Bernstein, C.N. (2021) AGA Clinical Practice Update on Management of Inflammatory Bowel Disease in Elderly Patients: Expert Review. *Gastroenterology*, **160**, 445-451. <u>https://doi.org/10.1053/j.gastro.2020.08.060</u>
- [5] Amrani, K., Elbacha, H., Benzzoubeir, N. and Errabih, I. (2024) Particularities of IBD in the Elderly. *Saudi Journal of Medicine*, 9, 197-202. https://doi.org/10.36348/sjm.2024.v09i06.006
- [6] Medhioub, M., Khsiba, A., Mahmoudi, M., Ben Mohamed, A., Yaakoubi, M., Lamine, H., et al. (2023) Caractéristiques des maladies inflammatoires chroniques de l'intestin chez le sujet âgé. La Revue de Médecine Interne, 44, A234. https://doi.org/10.1016/j.revmed.2023.04.202
- [7] Stepaniuk, P., Bernstein, C.N., Targownik, L.E. and Singh, H. (2015) Characterization of Inflammatory Bowel Disease in Elderly Patients: A Review of Epidemiology, Current Practices and Outcomes of Current Management Strategies. *Canadian Journal* of Gastroenterology and Hepatology, 29, 327-333. https://doi.org/10.1155/2015/136960
- [8] Hassine, A., Hammami, A., Ben Ameur, W., Aida, B.S., Ahlem, B., Salem, A., et al.

(2022) Maladies inflammatoires chroniques de l'intestin du sujet âgé: Profil épidémio-clinique, thérapeutique et évolutif. *La Revue de Médecine Interne*, **43**, A205. https://doi.org/10.1016/j.revmed.2022.03.142

- [9] Ma, C., Singh, S., Heatherington, J. and Panaccione, R. (2020) Editorial: Is Age Just a Number When It Comes to Treatment of Inflammatory Bowel Disease? *Alimentary Pharmacology & Therapeutics*, **52**, 1615-1616. <u>https://doi.org/10.1111/apt.16098</u>
- [10] Zhu, M. and Ran, Z. (2021) Clinical Characteristics of Ulcerative Colitis in Elderly Patients. *JGH Open*, 5, 849-854. <u>https://doi.org/10.1002/jgh3.12612</u>
- [11] (2006) Enquête nationale sur les personnes âgées au Maroc. Rapport d'enquête.
- [12] Guerra, I., Algaba, A., Serrano, Á., Aulló, C., Alcalde, D., de Lucas, M., *et al.* (2014) P504 Effectiveness and Adverse Events of Azathioprine in Inflammatory Bowel Disease: 9-Year Follow-Up Study. *Journal of Crohn's and Colitis*, 8, S277-S278. <u>https://doi.org/10.1016/s1873-9946(14)60624-3</u>
- [13] Fabricius, P.J., Gyde, S.N., Shouler, P., *et al.* (1985) Crohn's Disease in the Elderly. *Gut*, 26, 461-465. <u>https://gut.bmj.com/content/26/5/461</u>
- [14] González, M.B., Olmedo Martín, R.V., Morales Bermúdez, A.I. and Jiménez Pérez, M. (2024) Characterization of Inflammatory Bowel Disease in the Elderly According to Age of Onset. *Journal of Clinical Medicine*, 13, Article 7581. <u>https://doi.org/10.3390/jcm13247581</u>
- [15] Peerani, F. (2024) Medical Management of Inflammatory Bowel Disease in the Elderly. *Canadian IBD Today*, 2, 29-34. <u>https://doi.org/10.58931/cibdt.2024.2231</u>
- [16] Lin, S.H., Chiu, H.Y., Kuo, C.J., Chen, C.M., Wu, R.C., Chiu, C.T., *et al.* (2025) P0708 Advanced Therapies in Elderly Patients with Inflammatory Bowel Disease: A Comparative Retrospective Cohort Study in Taiwan Region. *Journal of Crohn's and Colitis*, **19**, i1380-i1382. <u>https://doi.org/10.1093/ecco-jcc/jjae190.0882</u>
- [17] Kim, K.O. (2015) Management of Anemia in Patients with Inflammatory Bowel Disease. *The Korean Journal of Gastroenterology*, **65**, 145-150. <u>https://doi.org/10.4166/kig.2015.65.3.145</u>
- [18] Estevinho, M.M. and Magro, F. (2023) Editorial: Elderly Onset Inflammatory Bowel Disease—Clues from the Largest Population-Based Cohort Study. *Alimentary Pharmacology & Therapeutics*, 58, 116-117. <u>https://doi.org/10.1111/apt.17543</u>
- [19] Dorreen, A., Heisler, C. and Jones, J. (2018) Treatment of Inflammatory Bowel Disease in the Older Patient. *Inflammatory Bowel Diseases*, 24, 1155-1166. <u>https://doi.org/10.1093/ibd/izy023</u>
- [20] Dorreen, A., Heisler, C. and Jones, J. (2018) Treatment of Inflammatory Bowel Disease in the Older Patient. *Inflammatory Bowel Diseases*, 24, 1155-1166. <u>https://doi.org/10.1093/ibd/izy023</u>
- [21] (2025) Outcomes of Immunosuppressors and Biologic Drugs in Inflammatory Bowel Diseases: A Real Life Experience. <u>https://scispace.com/papers/outcomes-of-immunosuppressors-and-biologic-drugsin-1snypcl9yq</u>
- [22] Gupta, Y.K., Singh, A., Narang, V., Midha, V., Mahajan, R., Mehta, V., *et al.* (2023) Clinical Spectrum of Elderly-Onset Inflammatory Bowel Disease in India. *Intestinal Research*, **21**, 216-225. <u>https://doi.org/10.5217/ir.2021.00177</u>
- [23] Talar-Wojnarowska, R., Caban, M., Jastrzębska, M., Woźniak, M., Strigáč, A. and Małecka-Wojciesko, E. (2024) Inflammatory Bowel Diseases in the Elderly: A Focus on Disease Characteristics and Biological Therapy Patterns. *Journal of Clinical Medicine*, **13**, Article 2767. <u>https://doi.org/10.3390/jcm13102767</u>

- [24] Pabla, B.S., Alex Wiles, C., Slaughter, J.C., Scoville, E.A., Dalal, R.L., Beaulieu, D.B., et al. (2021) Safety and Efficacy of Vedolizumab versus Tumor Necrosis Factor A Antagonists in an Elderly IBD Population: A Single Institution Retrospective Experience. *Digestive Diseases and Sciences*, 67, 3129-3137. https://doi.org/10.1007/s10620-021-07129-5
- [25] Amano, T., Shinzaki, S., Asakura, A., Tashiro, T., Tani, M., Otake, Y., et al. (2022) Elderly Onset Age Is Associated with Low Efficacy of First Anti-Tumor Necrosis Factor Treatment in Patients with Inflammatory Bowel Disease. Scientific Reports, 12, Article No. 5324. <u>https://doi.org/10.1038/s41598-022-09455-8</u>
- [26] Fidder, H., Schnitzler, F., Ferrante, M., Noman, M., Katsanos, K., Segaert, S., et al. (2008) Long-Term Safety of Infliximab for the Treatment of Inflammatory Bowel Disease: A Single-Centre Cohort Study. Gut, 58, 501-508. <u>https://doi.org/10.1136/gut.2008.163642</u>
- [27] Feuerstein, J.D., Curran, T., Alvares, D., Alosilla, M., Lerner, A., Cataldo, T., et al. (2019) Surgery for Ulcerative Colitis in Geriatric Patients Is Safe with Similar Risk to Younger Patients. European Journal of Gastroenterology & Hepatology, **31**, 1356-1360. <u>https://doi.org/10.1097/meg.00000000001529</u>
- [28] Seng, C., Su, W.K., Wilson, W., Connor, S.J., Andrews, J.M. and Walker, G. (2025) P1225 a Cross-Sectional Study of Inflammatory Bowel Disease in Older People across Australasia, a Crohn's Colitis Cure Data Insights Program. *Journal of Crohn's and Colitis*, **19**, i2216-i2217. <u>https://doi.org/10.1093/ecco-jcc/jjae190.1399</u>
- [29] Celis, J., Truyens, M., Verstockt, S., Glorieus, E., De Wolf, M., Lenfant, M., et al. (2024) P581 Age-Related Patterns in Biological Therapy Use and Surgery among Patients with IBD: Insights from the Belgian PANTHER Cohort. *Journal of Crohn's and Colitis*, 18, i1125-i1127. <u>https://doi.org/10.1093/ecco-jcc/jjad212.0711</u>
- [30] Vosoghinia, H., Saberzadeh-Ardestani, B., Anushiravani, A., Mansour-Ghanaei, F., Fakheri, H., Vahedi, H., *et al.* (2023) Comparison of Disease Phenotype and Course among Elderly- and Early-Onset Inflammatory Bowel Diseases in the Middle East. *Archives of Iranian Medicine*, **26**, 481-488. <u>https://doi.org/10.34172/aim.2023.73</u>
- [31] Kogan, L., Faye, A., Harvey, S., Oberai, R., Siegel, C., Melmed, G., et al. (2024) Chronological Age Influences Treatment Decision in Inflammatory Bowel Disease: An IBD QORUS Collaborative Study. Inflammatory Bowel Diseases, 30, S80-S81. https://doi.org/10.1093/ibd/izae020.174