with disrupted circadian regulation who may be at higher risk for cardiovascular complications. Incorporating these measures into routine assessment may therefore improve risk stratification and support earlier, more targeted interventions.

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CLINICAL CHARACTERISTICS AND DIAGNOSTIC PROFILES IN HOSPITALIZED PATIENTS WITH INFLAMMATORY BOWEL DISEASE

Introduction

Ulcerative colitis (UC) and Crohn's disease (CD) are the two main forms of inflammatory bowel disease (IBD). They are chronic, idiopathic characterized by relapsing-remitting intestinal inflammation [1]. Hospitalization often reflects a severe flare or failure of outpatient management, and accurate differentiation between UC and CD is essential for appropriate treatment selection [2]. The clinical presentation of IBD ranges from mild distal disease to severe pancolitis or extensive small bowel involvement with systemic complications. Early and accurate diagnostic profiling incorporating clinical symptoms, endoscopic findings, laboratory biomarkers, and histology is crucial for risk stratification and timely initiation of appropriate therapy. Non-invasive biomarkers such as C-reactive protein (CRP) and fecal calprotectin (FC) have emerged as valuable tools for monitoring disease activity, with recent studies demonstrating their correlation with endoscopic and histologic healing endpoints [3]. Age at disease onset significantly influences clinical course. Pediatric-onset IBD often exhibits more extensive and aggressive disease compared to adult-onset cases. Older patients (≥60 years), who now comprise up to 25–35% of the IBD population, frequently present with distinct challenges including comorbidities and increased treatment-related risks [4].

Therapeutic approaches have evolved substantially over the past decade. While 5-aminosalicylates (5-ASA) remain first-line therapy for mild-to-moderate UC, immunomodulators and biologic agents are increasingly utilized for steroid-dependent or refractory cases in both UC and CD. Despite advances, corticosteroid overuse remains problematic, with prolonged exposure

linked to increased healthcare resource utilization and adverse events [2]. The distinction between UC and CD can be challenging at initial presentation, as both conditions share overlapping clinical, endoscopic, and histopathological features. However, they differ in disease distribution, response to therapy, and long-term prognosis, making accurate diagnosis essential [1]. This study analyses the characteristics of patients hospitalized with IBD to provide practical insights for inpatient care and diagnostic differentiation.

Goal

The aim of this study was to analyze the clinical characteristics, diagnostic profiles and treatment patterns of patients hospitalized with inflammatory bowel disease, including both Ulcerative colitis and Crohn's disease in the gastroenterology department.

Material and methods of research

A retrospective analysis of 28 patients hospitalized in the gastroenterology department of Gomel State Clinical Hospital No.3 from 2024–2025 was conducted. This Study included 17 patients (60.7%) with Ulcerative colitis (ICD-10: K51) and 11 patients (39.3%) with Crohn's disease (ICD-10: K50). Data were extracted from medical records, including demographics, clinical presentation, complications, concomitant diseases, laboratory parameters (CRP, fecal calprotectin, hemoglobin, albumin), colonoscopy findings (Montreal extent, UCEIS), treatment, and outcomes. All statistical analysis of the study was preformed using Microsoft Excel and SPSS Statistics version 29.0.

The results of the research and their discussion

This study comprised 28 patients among which were 15 females (53.6%) and 13 males (46.4%) with mean age 42.4±14.0 years (range 22–68). The mean length of hospital stay was 12.9±6.4 days, with a median of 13.0 days. Moderate disease activity at admission was recorded in 12 patients (42.9%), and a recurrent disease course was documented in 10 patients (35.7%). On admission, the general condition was satisfactory in 23 patients (82.1%) and moderately severe in 5 patients (17.9%). Abdominal tenderness was elicited in 18 patients (64.3%), most commonly in the left iliac region, and abdominal distension was present in 10 patients (35.7%). Tachycardia with a pulse rate exceeding 90 beats per minute was noted in 2 patients (7.1%). Low-grade fever was observed in 2 patients (7.1%). Signs of dehydration were documented in 6 patients (21.4%).

With regard to clinical presentation, all 28 patients (100%) presented with diarrhea. Blood in the stool was reported by 12 patients (42.9%), and mucus by 13 patients (46.4%). Abdominal pain was present in 22 patients (78.6%). Tenesmus was noted in 5 patients (17.9%), bloating in 8 patients (28.6%), weight loss in 3 patients (10.7%), and nocturnal defecation in 3 patients (10.7%). A recurrent disease course was documented in 10 patients (35.7%). Four patients (14.3%) had a history of self-discontinuation of maintenance therapy that led to relapse. Extra-intestinal manifestations were observed in 12 patients (42.9%), including arthralgia or arthritis, stomatitis, skin rashes, and hepatic steatosis. Among the 17 patients with confirmed UC, left-sided colitis (Montreal E2) was the most common disease extent, affecting 10 patients (58.8%). Extensive colitis or pancolitis (E3) was present in 4 patients (23.5%), while proctitis (E1) was observed in the remaining 3 patients (17.6%).

Complications of the main disease were recorded in 8 patients (28.6%). Intestinal bleeding occurred in one patient (3.6%), aseptic necrosis of the hip joint in one patient (3.6%), steroid dependence in two patients (7.1%), iron deficiency anemia in two patients (7.1%), and hypertransaminasemia or leukopenia attributed to azathioprine in two patients (7.1%). Concomitant diseases were present in 24 patients (85.7%). The most frequent concomitant condition was chronic gastritis in 13 patients (46.4%). Thyroid nodules or cysts found in 9 patients (32.1%), Iron deficiency anemia in 7 patients (25.0%), Arterial hypertension in 5 patients (17.9%), cholelithiasis in 5 patients (17.9%), non-alcoholic fatty liver disease or steatosis in 5 patients (17.9%), uterine fibroids in 4 patients (14.3%), chronic kidney disease or nephrolithiasis in 4 patients (14.3%), osteoporosis in 2 patients (7.1%), and bronchial asthma in 2 patients (7.1%).

Concerning laboratory parameters, CRP values were presented for 18 patients at admission and for 12 patients at discharge. The mean admission CRP was 32.8±46.4 mg/L, with a range of 0.5 to 190.0 mg/L. The mean discharge CRP was 8.3±12.0 mg/L, with a range of 0.8 to 53.6 mg/L, representing a mean reduction of 67.2%. Fecal calprotectin was elevated in two patients, with values of 687.22 mg/kg, and 1800 respectively while it was not detected in seven patients and was not documented in the remaining patients. Hemoglobin values were presented for 26 patients at admission and for 15 patients at discharge. The mean admission hemoglobin was 129.5±18.0 g/L, with a range of 99 to 160 g/L. The mean discharge hemoglobin was 130.3±18.0 g/L, with a range of 104 to 160 g/L. Two patients (7.1%) had hemoglobin below 100 g/L. Albumin values were presented for 16 patients at admission and for 7 patients at discharge. The mean admission albumin was 40.2±4.7 g/L, with a range of 32.4 to 47.7 g/L. The mean discharge albumin was 38.8±4.1 g/L, with a range of 33.0 to 44.9 g/L. ESR values were presented for 23 patients at admission and for 15 patients at discharge. The mean admission ESR was 18.3±12.7 mm/h, with a range of 2 to 52 mm/h. The mean discharge ESR was 16.2±11.3 mm/h, with a range of 4 to 38 mm/h.

Colonoscopy was performed in all 28 patients. Among the 17 patients with confirmed UC, endoscopic activity according to the Ulcerative Colitis Endoscopic Index of Severity was mild in 4 patients (23.5%), moderate in 9 patients (52.9%), and severe in 4 patients (23.5%). The endoscopic appearance varied with disease extent. In 3 patients with proctitis, the rectal mucosa showed hyperemia, erythema, and loss of vascular pattern. In 10 patients with left-sided colitis, continuous inflammation extended from the rectum to the splenic flexure, with marked erythema, friability, erosions and superficial ulcerations was found. 4 patients with pancolitis exhibited diffuse edema, extensive ulcerations, spontaneous bleeding, and pseudopolyps. Also, 1 patient was documented as having a total lesion with fourth degree of activity according to the endoscopic classification. Pseudopolyps were observed in three patients (17.6%) with long-standing disease, while 1 patient had a coexisting tubular adenoma.

Regarding treatment approach, 28 patients (100%) received 5-aminosalicylates administered orally, rectally, or in combination. Systemic corticosteroids were used for acute flares in 12 patients (42.9%). Immunomodulators, specifically azathioprine, were prescribed in 7 patients (25.0%). Biologic therapy with adalimumab was used in one patient who had Crohn's disease. Clinical improvement was observed in 25 patients (89.3%) by discharge. No colectomies were performed during the hospitalization period. Outcomes varied according to disease extent. Patients with proctitis had a mean length of stay of 6.1 days. Those with left-sided colitis had a mean length of stay of 8.7 days. Patients with pancolitis had a mean length of stay of 11.2 days. Age also influenced recovery. Patients younger than 40 years comprised 16 patients (57.1%). Those aged 40 to 60 years comprised 6 patients (21.4%). Patients older than 60 years comprised 4 patients (14.3%). Older patients demonstrated a more attenuated response compared to younger patients.

Conclusions

Our study demonstrates that step-up therapy leads to significant clinical and laboratory improvement in majority of patients. Of the 28 patients, 17 (60.7%) had confirmed ulcerative colitis, while 11 (39.3%) had Crohn's disease, highlighting the diagnostic challenges in differentiating these conditions. Early CRP reduction correlated with good outcomes, supporting its use as a practical monitoring tool. Disease extent was a key prognostic factor in UC patients: pancolitis was associated with longer hospital stays of 11.2 days compared to proctitis with 6.1 days. Older patients responded more slowly and had more comorbidities across both groups, highlighting the need for individualized care.

This comparative analysis also revealed that while both UC and CD patients presented with diarrhea (100% in both groups), blood in stool was more common in UC (42.9%) compared to CD (18.2%), while extra-intestinal manifestations were more frequent in CD patients (54.5%) than in UC patients (35.3%). These differences emphasize the importance of comprehensive

diagnostic evaluation in IBD. The small sample size of our study limits generalizability, therefore larger prospective studies are needed to confirm these findings.

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CLINICAL AND DEMOGRAPHIC PROFILE OF HYPERTENSION: A FOCUS ON DISEASE SEVERITY, RISK STRATIFICATION AND COMPLICATIONS

Introduction

Hypertension, or high blood pressure, is one of the most prevalent and potent cardiovascular risk factors affecting populations worldwide. It is a chronic medical condition characterized by persistently elevated pressure within the arteries. The relentless force of high pressure inflicts silent damage on vital organs. The clinical importance of hypertension serves as a gateway to a host of severe and often fatal complications. By mechanically stressing the vascular system and promoting atherosclerosis (hardening of the arteries), high blood pressure is the primary modifiable risk factor for a wide spectrum of diseases.

The primary target organs affected are the heart, brain, kidneys, and eyes. In the heart, hypertension forces the cardiac muscle to work harder, leading to left ventricular hypertrophy, coronary artery disease, and ultimately, heart failure. In the brain, it is the leading cause of hemorrhagic and ischemic strokes, as well as a major contributor to vascular dementia. The delicate filtration system of the kidneys is particularly vulnerable; hypertension is a principal cause of chronic kidney disease and end-stage renal failure. Furthermore, the elevated pressure can damage the retina of the eye (hypertensive retinopathy), leading to vision impairment [1].

Goal

The aim is to study the demographic and clinical characteristics of patients with hypertension, with a specific focus on the relationship between disease severity, risk category, duration, and complications.

Material and methods of research

A cross-sectional analysis of 40 patients was conducted in Gomel State Clinical Hospital No.3. Data on age, sex, HTN grade, risk category, highest recorded BP, complications (crisis/stroke).