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).

The study includes 40 patients, with a significant majority being female (30 females, 75%) compared to males (10 males, 25%). The patients' ages range from 46 to 84 years old, with an average age of 67.5 years. The systolic blood pressure readings among participants range from 140 mmHg to 260 mmHg, with an average systolic pressure of approximately 187 mmHg.

A majority of the patients 28 out of 40 (70%) have experienced a "Crisis" related to their hypertension. In total, 5 patients (12.5%) have a documented history of stroke, either indicated as "Stroke" or "with stroke present" alongside a crisis.

The results of the research and their discussion

The systolic blood pressure (SBP) data presents only a small minority (10%, n=4) fall into the normal-to-high normal range (<160 mmHg). The majority of patients (65%) present with significantly elevated blood pressure, distributed across the 160–179 mmHg range (20%, n=8), the 180–199 mmHg range (22.5%, n=9), and the 200–219 mmHg range (22.5%, n=9). A quarter of the patient population (25%, n=10) presents with severely elevated blood pressure exceeding 220 mmHg. This distribution suggests that hypertension is potentially acting as a trigger or exacerbating factor for the neurological complications (stroke) observed [3].

Direct correlation between higher risk categories and patient count. The lowest risk group (Risk 1) contains the fewest patients (7.5%, n=3), while the highest risk group (Risk 4) contains the most (42.5%, n=17). Combined, the two highest risk categories (Risk 3 and Risk 4) account for nearly three-quarters of the cohort (72.5%, n=29). This high-risk profile is consistent with the severe grading and high complication rates observed. It suggests that the majority of these patients possess multiple risk factors that contribute to the high incidence of severe disease (Grade 3) and serious complications like stroke. Grade 1 (15%, n=6), representing mild disease. A large group of patients falls into Grade 3 (52.5%, n=21), indicating that more than half of the patients have severe disease manifestation. This high proportion of severe cases (Grade 3) correlates strongly with the high incidence of complications noted above. The intermediate group, Grade 2, comprises 32.5% (n=13) of the patients, suggesting a significant population with moderate disease that may be at risk of progression [4].

More than half of the cohort (52.5%, n=21) presented with crisis only. While only 5% (n=2) experienced a "Stroke only," a combined total of 17.5% of patients suffered from some form of stroke either alone or in conjunction with a crisis. Specifically, 12.5% (n=5) of patients experienced a "Crisis with stroke," highlighting a severe overlap of symptoms that likely requires intensive, multidisciplinary management. Encouragingly, nearly a third of the patients (30%, n=12) were recorded as having no complications. Patients who experienced a stroke had a mean disease duration of 21.4 years, compared to 12.3 years for those with crisis only and 9.2 years for those with no recorded crisis or stroke [2, 3].

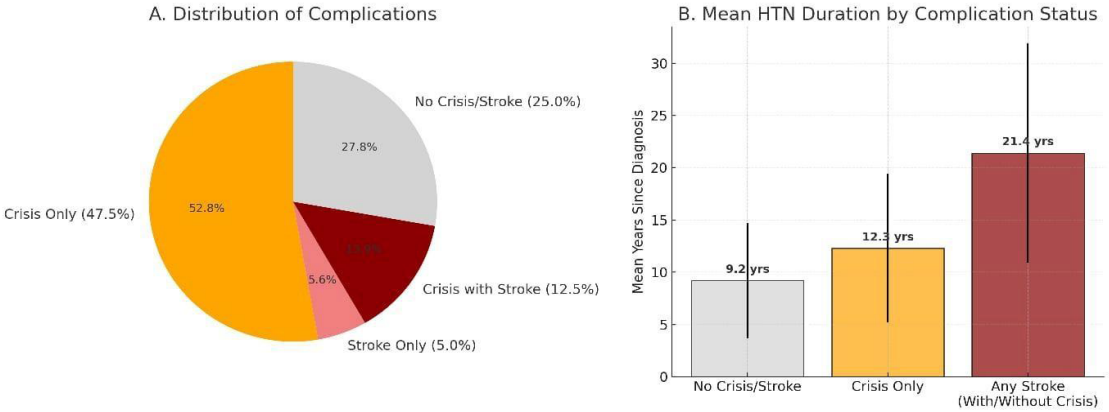


Figure 1 – Distribution of complications

The high prevalence of Grade 3 hypertension (60%) and Risk Category 4 (55%) indicates a patient population requiring intensive management and close monitoring.

Conclusions

This study, predominantly of older adults (mean age 67.7 years) and females (67.5%), demonstrates a significant burden of advanced hypertension, with 60% of patients classified as Grade 3 and 55% falling into the highest cardiovascular risk category (Risk 4). The mean highest recorded systolic blood pressure of 186.4 mmHg and the average disease duration of nearly 13 years underscore the chronic and severe nature of hypertension.

Complication profile reveals alarming rates of morbidity, with 70% of patients experiencing some form of complication. Hypertensive crises affected nearly two-thirds of the cohort (65%), while stroke occurred in 17.5% of patients. Most notably, the analysis reveals a striking association between disease duration and severe outcomes: patients who experienced stroke had a mean disease duration of 21.4 years nearly double that of patients with crises only (12.3 years) and more than double that of patients without complications (9.2 years). This finding strongly suggests that prolonged uncontrolled hypertension progressively increases the risk of catastrophic cerebrovascular events.

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CLINICAL AND LABORATORY CHARACTERISTICS OF PATIENTS HOSPITALIZED WITH INFLAMMATORY BOWEL DISEASE: A SINGLE-CENTER RETROSPECTIVE STUDY

Introduction

Inflammatory bowel disease (IBD), comprising ulcerative colitis (UC) and Crohn's disease (CD), is a chronic, relapsing immune-mediated condition of the gastrointestinal tract [1]. Exacerbations often require hospitalization, representing a clinically important subgroup with more pronounced symptoms and laboratory abnormalities [2]. Beyond intestinal inflammation, IBD is frequently associated with systemic manifestations, including anemia, one of the most common laboratory findings [3, 5]. Anemia may result from chronic inflammation, iron deficiency, or prior blood loss, significantly affecting morbidity and quality of life [3, 5]. Routine laboratory markers such as hemoglobin (Hb), erythrocyte sedimentation rate (ESR), and C-reactive protein (CRP) are widely used to assess disease activity, though their relationship with hematological parameters can vary [4]. Prevalence and characteristics of anemia in IBD are heterogeneous, reflecting differences in disease severity, patient populations, and clinical settings [2, 5]. Evaluation of demographic, clinical, and laboratory parameters in hospitalized patients may provide valuable insight into their hematological profile and support individualized management [3].