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Assessment of the Prevalence and Risk Factors of Hemorrhoids among Patients Attending Abu Ali Sina Balkhi Regional Teaching Hospital

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ABSTRACT

Hemorrhoids are among the most common anorectal diseases, caused by the dilation and inflammation of venous vessels in the anal and rectal region. This condition may lead to pain, bleeding, itching, and a reduction in patients' quality of life. The present study was designed to assess the prevalence and identify the associated risk factors of hemorrhoids among patients attending Abu Ali Sina Balkhi Regional Teaching Hospital. This descriptive–analytical study was conducted on 80 patients, and data were collected through a structured questionnaire and review of medical records. The collected information included demographic characteristics, lifestyle factors, occupational conditions, and duration of sitting. Statistical analysis consisted of descriptive statistics, Chi-square (χ^2) tests, and regression analysis to determine the association between risk factors and the prevalence of the disease.

The results showed that 57.5% of the patients were diagnosed with hemorrhoids, with the highest prevalence observed in the 30–39-year age group. The prevalence of the disease was nearly similar in males and females, and statistical analysis indicated that gender and age group had no significant association with the occurrence of hemorrhoids. In contrast, chronic constipation, low physical activity, and a low-fiber diet were significantly associated with the prevalence of hemorrhoids. Occupational conditions and prolonged sitting were also identified as contributing factors, although the association did not reach statistical significance. These findings emphasize that

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hemorrhoids is a multifactorial disease in which unhealthy lifestyle, chronic constipation, and poor dietary habits play major roles in its prevalence.

Based on the findings, lifestyle modification—including increased dietary fiber intake, prevention of constipation, and regular physical activity—may help reduce the prevalence and complications of hemorrhoids. Furthermore, patient education and counseling aimed at reducing prolonged sitting and improving dietary habits are of considerable importance. This study may provide a scientific basis for the development of preventive, educational, and management programs in healthcare centers and for health policy planning in northern Afghanistan, and it may serve as a valuable reference for future research on the management of anorectal diseases.

Key Words: Hemorrhoids, Prevalence, Risk Factors, Lifestyle, Constipation, Diet, Physical Activity, Afghanistan.

Introduction

Hemorrhoids are among the most common anorectal diseases affecting millions of people worldwide and are associated with considerable medical as well as socioeconomic burdens. The pain caused by hemorrhoids can be severe, leading to limitations in daily activities and negatively affecting individuals' personal and social lives. In addition, the management and treatment of this condition often impose substantial financial costs on both patients and healthcare systems (Nahrini & Milani, 2016, p. 1376).

Several risk factors have been identified in the development of hemorrhoids. Among the most important are chronic constipation, excessive straining during defecation, physical inactivity, prolonged sitting, obesity, pregnancy, a low-fiber diet, and inadequate fluid intake. Furthermore, certain underlying medical conditions and specific occupational factors may increase the likelihood of developing this disorder. With the changes associated with modern lifestyles and evolving dietary patterns, the prevalence of hemorrhoids has increased in many societies, highlighting the importance of identifying and addressing its risk factors.

Approximately 5% of individuals experience hemorrhoids during their lifetime,

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while nearly 50% develop symptoms or require treatment for hemorrhoids by the age of 50 (Nahrini & Milani, 2016, p. 1376).

In Afghanistan, particularly in the northern regions of the country, systematic and well-documented scientific information regarding the prevalence of hemorrhoids and its associated risk factors remains limited. Healthcare facilities, including Abu Ali Sina Balkhi Regional Teaching Hospital, play an important role in providing medical services and maintaining patient records, which can serve as valuable sources for epidemiological research. Evaluating the condition of patients attending this center can provide a relatively accurate picture of the disease pattern at the regional level.

Therefore, the present study was conducted to investigate the prevalence and identify the risk factors of hemorrhoids among patients attending this hospital. The findings of this study may contribute to a better understanding of the magnitude of this health problem and may help in designing preventive strategies, increasing public awareness, improving diagnostic and treatment approaches, and ultimately reducing the complications associated with this condition in the community. Furthermore, the results may be useful for health policymakers and healthcare providers in planning more effective medical services.

Problem Statement

Hemorrhoids are among the most common diseases of the anal and rectal region, characterized by symptoms such as pain, bleeding, itching, and discomfort during defecation. These symptoms can significantly affect individuals' daily functioning and overall quality of life. Despite the relatively high prevalence of this condition in many societies, diagnosis and treatment are often delayed due to social stigma and patients' neglect of early symptoms. Such delays may lead to the progression of the disease and the development of more serious complications (Yousefi et al., 2011).

In Afghanistan, particularly in the northern regions of the country, reliable scientific data regarding the prevalence of hemorrhoids and the associated risk factors remain limited. Many patients, lacking sufficient awareness of the causes and preventive measures, tend to seek medical care only in the advanced stages of the disease. This situation increases the burden of disease, raises treatment costs, and places

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additional pressure on the healthcare system. Moreover, factors such as chronic constipation, poor dietary habits, physical inactivity, specific occupational conditions, and limited access to healthcare services may play an important role in the occurrence and progression of this disease. However, the relative impact of these factors in the regional context has not yet been clearly determined.

Abu Ali Sina Balkhi Regional Teaching Hospital, as one of the major healthcare centers in northern Afghanistan, receives a large number of patients each year suffering from gastrointestinal and genitourinary disorders, including hemorrhoids. Despite this high patient load, no comprehensive and systematic study has yet been conducted to assess the prevalence of hemorrhoids and to identify its associated risk factors among patients attending this hospital. The absence of such information makes it difficult to design effective strategies for prevention, early diagnosis, and appropriate management of the disease.

Therefore, the main problem addressed in this research is the lack of accurate scientific data regarding the prevalence of hemorrhoids and its associated risk factors among patients attending this hospital. Conducting this study may help identify the contributing factors and patterns of disease prevalence, thereby providing a foundation for the development of preventive programs, improving public awareness, and enhancing healthcare services. Ultimately, these efforts may contribute to reducing the complications and adverse outcomes associated with this disease.

Significance and Necessity of the Study

Hemorrhoids are among the common diseases of the anal region and can cause symptoms such as pain, bleeding, and a reduction in quality of life. In Afghanistan, particularly in the northern regions of the country, accurate information regarding the prevalence and risk factors of this condition remains limited.

Abu Ali Sina Balkhi Regional Teaching Hospital, which receives a large number of patients suffering from this condition, provides a valuable opportunity for collecting scientific data. The findings of this study may contribute to the identification of risk factors, increase public awareness, improve healthcare services, and assist in the development of preventive health programs.

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Research Objectives

Main Objective:

- To assess the prevalence of hemorrhoids and identify the associated risk factors among patients attending Abu Ali Sina Balkhi Regional Teaching Hospital.

Specific Objectives:

1. To determine the distribution of patients with hemorrhoids according to age and gender.
2. To identify lifestyle-related factors such as dietary habits, physical activity, and chronic constipation associated with the occurrence of hemorrhoids.
3. To examine the relationship between occupational conditions and prolonged sitting with the development of hemorrhoids.

Research Hypotheses

Main Hypothesis:

- There is a significant association between the prevalence of hemorrhoids and related risk factors (age, gender, lifestyle, occupational conditions, and duration of sitting) among patients attending Abu Ali Sina Balkhi Regional Teaching Hospital.

Specific Hypotheses:

1. There is a significant relationship between patients' age and gender and the prevalence of hemorrhoids.
2. Lifestyle factors, including an unhealthy diet, low physical activity, and chronic constipation, are associated with an increased risk of developing hemorrhoids.
3. Occupational conditions and prolonged sitting are positively and significantly associated with the likelihood of developing hemorrhoids.

Research Methodology

This study was designed as a descriptive–analytical research to assess the prevalence and risk factors of hemorrhoids among patients attending Abu Ali Sina Balkhi Regional Teaching Hospital. The study population consisted of all patients visiting the surgery department of this hospital during a one-year period (2025). Data were collected using

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a simple random sampling method, and a total of 80 patients were selected as the study sample.

Data collection was carried out through a structured questionnaire and review of patients' medical records. The questionnaire included demographic information such as age and gender, lifestyle factors including dietary habits, physical activity, and chronic constipation, as well as occupational conditions and the duration of prolonged sitting.

After data collection, the analysis was conducted at two levels. Descriptive statistics were used to examine the frequency distribution of patients based on age, gender, and other variables. Inferential statistics were applied to determine the relationships between risk factors and the prevalence of hemorrhoids using Chi-square (χ^2) tests, t-tests, and regression analysis at a significance level of 0.05. This research methodology enables an accurate identification of the prevalence of the disease and its contributing factors and may provide a scientific basis for recommendations aimed at prevention and improvement of healthcare services in the hospital.

Literature Review and Theoretical Background

Hemorrhoids, also known as piles, are among the most common medical conditions affecting a large proportion of the population worldwide. This disease is one of the most prevalent disorders of the anal and rectal region and occurs due to the dilation and inflammation of the venous vessels in the anal area. Hemorrhoids may appear as either internal or external forms and, depending on their severity, may cause symptoms such as pain, bleeding, itching, a sensation of pressure, and prolapse of anal tissue (Sun & Migaly, 2016).

The condition is observed more frequently in men than in women and is rarely seen in children. However, the incidence is higher between the ages of 30 and 50 years, and after the age of 50 nearly 70% of individuals may develop hemorrhoidal swellings, although only a smaller proportion experience significant symptoms (Azizi, 2006).

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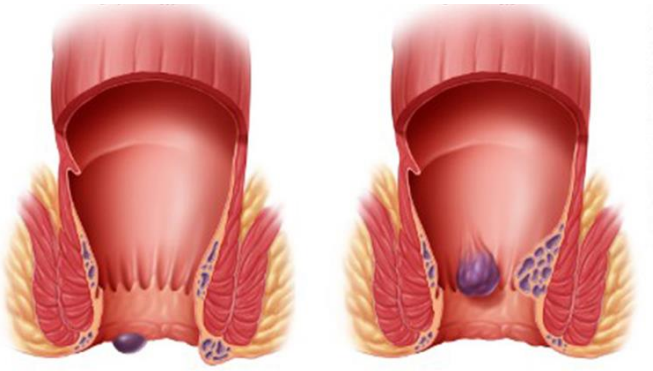

In addition to physical complications, hemorrhoids may also produce psychological and social consequences for affected individuals. These effects can include a reduced quality of life, decreased social functioning, and anxiety associated with the disease (Madoff & Fleshman, 2004).

From a pathophysiological perspective, hemorrhoids result from increased venous pressure in the hemorrhoidal plexus and the enlargement of anal venous vessels. Factors that increase intra-abdominal and anorectal pressure play a significant role in the development and progression of the disease. Chronic constipation, straining during defecation, prolonged sitting, low physical activity, and a low-fiber diet are among the most recognized contributing factors (Jameson et al., 2022).

Research has shown that inadequate intake of dietary fiber and fluids leads to the formation of hard stools and increased straining during defecation, which in turn results in dilation of the anal veins and the development of hemorrhoids.

One of the most important demographic factors associated with hemorrhoids is age. The prevalence of hemorrhoids has been reported to be higher among middle-aged and elderly individuals. With increasing age, the supportive connective tissues and muscular structures surrounding the hemorrhoidal veins gradually weaken, and the elasticity of blood vessels decreases, making individuals more susceptible to the development of hemorrhoids (Sun & Migaly, 2016).

Gender has also been identified as a potential risk factor in some studies. Women, particularly during pregnancy and the postpartum period, are more prone to hemorrhoids due to increased pressure of the enlarged uterus on the rectal veins and hormonal changes that affect vascular tone (Madoff & Fleshman, 2004). However, the prevalence of hemorrhoids among men is also considerable, often attributed to sedentary lifestyles and occupations that require prolonged sitting.

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Lifestyle factors play a significant role in the development of hemorrhoids. A low-fiber diet and inadequate fluid intake contribute to constipation and increased straining during defecation. In addition, physical inactivity and lack of exercise reduce blood circulation in the anal region and may aggravate venous dilation. Studies have indicated that individuals who consume diets rich in vegetables, fruits, and whole grains have a lower risk of developing hemorrhoids, while regular physical activity may help reduce intra-abdominal pressure and contribute to the prevention of the disease (Sun & Migaly, 2016).

Chronic constipation is considered one of the most significant risk factors and is directly associated with increased anal pressure, particularly in individuals who remain seated or standing for prolonged periods (Feldman et al., 2021).

Occupational conditions and prolonged sitting have also been identified as important contributing factors in the development of hemorrhoids. Individuals with desk-based occupations, drivers, office employees, and those who remain seated in a fixed position for long durations are at greater risk of developing this condition. Prolonged pressure on the anal veins can impair blood circulation and lead to venous enlargement (Madoff & Fleshman, 2004). Additionally, heavy physical activities and lifting heavy loads may increase intra-abdominal pressure and consequently raise the risk of hemorrhoid development.

Types of Hemorrhoids

Hemorrhoids are generally classified into two main types: external hemorrhoids and internal hemorrhoids. This classification is based on their origin and anatomical location. External hemorrhoids develop around the anal opening, whereas internal hemorrhoids are associated with the dilation and inflammation of veins within the anal canal. In some cases, individuals may experience both types of hemorrhoids simultaneously. The following section provides a more detailed explanation of the different types of hemorrhoids (Besharat et al., 2004).

1. Internal Hemorrhoids

Internal hemorrhoids, as the name suggests, develop inside the anal canal and are usually painless. When an individual has internal hemorrhoids, the veins may

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become swollen during defecation due to contact with stool, potentially causing bleeding. Symptoms of internal hemorrhoids may include mild pain and itching, particularly when the swollen veins are exposed to increased pressure during bowel movements.

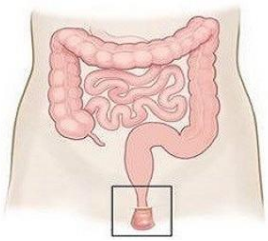
2. External Hemorrhoids

Another type of hemorrhoid is the external hemorrhoid. In this condition, the veins beneath the skin around the anus become swollen, which can result in bleeding and itching. The swelling and inflammation in external hemorrhoids are often due to the formation of blood clots in the affected veins.

Methods for Prevention of Hemorrhoids

Prevention of hemorrhoids primarily depends on lifestyle modifications and interventions that reduce pressure on the anal blood vessels and improve digestive efficiency. Effective preventive strategies include:

1. **Improved Diet:** Increasing dietary fiber intake facilitates bowel movements and prevents constipation. Foods rich in fiber—such as fruits, vegetables, whole grains, and legumes—are recommended. Adequate hydration through sufficient water and fluid intake is also essential to maintain soft stools and prevent constipation.



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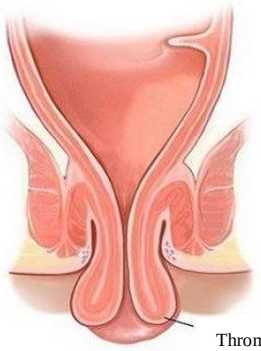

Thrombosed Hemorrhoid

2. **Regular Exercise:** Physical activity improves blood circulation and reduces pressure on pelvic veins. Exercises such as walking, swimming, and yoga can help prevent constipation and consequently reduce the risk of hemorrhoids.

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3. **Weight Management:** Excess body weight increases pressure on the pelvic veins and raises the risk of hemorrhoids. Weight reduction through a balanced diet and regular physical activity can help prevent the disease.
4. **Avoid Excessive Straining:** Avoiding prolonged and excessive straining during defecation can prevent hemorrhoid formation. Using a small footstool while seated on the toilet may help position the intestines for easier bowel movements.
5. **Proper Hygiene:** Keeping the anal area clean and dry helps prevent irritation and inflammation. Soft toilet paper or gentle, alcohol-free cleansers are recommended, and drying should be done carefully rather than through abrasive rubbing.
6. **Limiting Prolonged Sitting:** Reducing extended periods of sitting, especially on hard surfaces, can lower pressure on the anal veins and help prevent hemorrhoids. For those with sedentary jobs, taking regular breaks to stand and move is advised.

Implementing these lifestyle modifications and preventive measures can significantly reduce the risk of hemorrhoid development and promote overall digestive health.

Evidence from Studies

Numerous studies have confirmed the association between constipation, low-fiber diets, and sedentary behavior with the prevalence of hemorrhoids. For instance, Sun and Migaly (2016), in a systematic review, reported that a high-fiber diet combined with adequate fluid intake significantly reduces the risk of developing hemorrhoids. Similarly, Jameson et al. (2022) indicated that adopting a healthy lifestyle, maintaining regular physical activity, and preventing constipation not only reduce the incidence of hemorrhoids but also alleviate disease-related complications among affected patients.

In Afghanistan, particularly in northern regions and urban areas such as Balkh, systematic epidemiological studies on the prevalence and risk factors of hemorrhoids are limited. Most available data are derived from clinical reports and physician

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observations, and comprehensive statistical records are lacking. Given modern lifestyle changes, altered dietary patterns, and reduced physical activity, the prevalence of hemorrhoids is likely to increase. Therefore, conducting studies to assess the prevalence and risk factors of hemorrhoids among patients attending reputable healthcare centers, such as Abu Ali Sina Balkhi Regional Teaching Hospital, is of critical importance.

Evidence suggests that providing scientific and statistical data in this field can assist health policymakers and healthcare authorities in designing more effective preventive, educational, and medical programs. Identifying common risk factors, raising public awareness, and promoting lifestyle modifications can facilitate the reduction of both the prevalence and complications of hemorrhoids. Additionally, the results of such studies can serve as a foundation for future research on the prevention and management of anorectal diseases at the national level.

In summary, previous studies indicate that hemorrhoids are a multifactorial condition, with prevalence influenced by age, gender, lifestyle, and occupational factors. Scientific research and documented data in Afghanistan are limited, and this study can help fill this gap, providing a basis for preventive strategies and healthcare interventions. Collecting information from patients attending Abu Ali Sina Balkhi Regional Teaching Hospital can offer an accurate representation of disease patterns and risk factors in the region and contribute to the improvement of healthcare services.

Analysis

Table 1. Distribution of Patients by Gender and Age Group

Female	Male	Age Group	Total
8	12	<30	20
10	18	30–39	28
8	10	40–49	18
6	8	≥50	14
32	48	Total	80

Table 1 shows that out of 80 patients, 48 (60%) were male and 32 (40%) were female. The highest number of patients was observed in the 30–39 age group (28 patients), while the lowest was in the ≥50 age group (14 patients). Among patients under 30 years,

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12 were female and 8 male; in the 40–49 age group, there were 10 males and 8 females. This distribution indicates that middle-aged individuals constitute the majority of patients, while very young and older groups have fewer patients. Moreover, the male-to-female ratio was higher across all age groups, which may reflect either a higher prevalence of the disease among men or greater male inclination to seek surgical care. These data provide a basis for examining the association between age, gender, and hemorrhoid prevalence in subsequent statistical analyses.

Table 2. Hemorrhoid Prevalence by Gender

Total	Affected	Unaffected	Gender
48	28	20	Male
32	18	14	Female
80	46	34	Total

Table 2 indicates that 46 out of 80 patients (57.5%) had hemorrhoids, while 34 (42.5%) were unaffected. Among males, 28 were affected and 20 were unaffected; among females, 18 were affected and 14 unaffected. The prevalence was similar between males (58.3%) and females (56.3%), showing no significant difference in hemorrhoid occurrence by gender. Thus, gender alone is not a determining factor, and lifestyle or environmental factors likely play a more significant role. This aligns with previous studies suggesting that hemorrhoids are multifactorial, with demographic factors having less impact than chronic constipation and lifestyle.

Table 3. Hemorrhoid Prevalence by Age Group

Affected	Unaffected	Age Group	Total
8	12	<30	20
16	12	30–39	28
12	6	40–49	18
10	4	≥50	14
46	34	Total	80

Table 3 shows that hemorrhoid prevalence varies across age groups. Among patients under 30, 8 were affected; in the 30–39 age group, 16 of 28 were affected. In the 40–49 and ≥50 age groups, the proportion of affected patients exceeded 60%. Although prevalence tends to increase with age, statistical analysis showed no significant

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differences ($p>0.05$), suggesting that age alone is not a determinant but cumulative venous pressure and lifestyle over time may contribute to disease development.

Table 4. Hemorrhoid Prevalence by Lifestyle Factors

Affected	Unaffected	Category	Factor	Total
28	8	Yes	Chronic Constipation	36
18	26	No		44
30	10	Low	Physical Activity	40
12	16	Moderate		28
4	8	High		12
20	10	Low-Fiber	Diet	30
18	14	Moderate		32
8	10	High-Fiber		18

Table 4 demonstrates that lifestyle factors significantly influence hemorrhoid prevalence. Patients with chronic constipation had the highest rates (28 of 36 affected). Low physical activity was associated with higher prevalence, while moderate and high activity groups had lower rates. Diet also played a major role; patients with a low-fiber diet had higher prevalence, which decreased with higher fiber intake. These findings highlight chronic constipation, physical inactivity, and poor diet as key lifestyle risk factors and indicate that modifying these behaviors can help prevent hemorrhoids.

Table 5. Hemorrhoid Prevalence by Occupation and Sitting Duration

Affected	Unaffected	Category	Factor	Total
26	16	Sitting	Occupation	42
10	10	Standing		20
10	8	Active		18
8	12	<4 h	Sitting Duration	20
22	14	4–8 h		36
16	8	>8 h		24

Table 5 indicates that occupation and prolonged sitting are moderately associated with hemorrhoid prevalence. The majority of cases were among sedentary workers (26 of

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42), while standing and active groups had fewer cases. Longer sitting durations correlated with higher prevalence; those sitting >8 hours/day had 16 of 24 affected. Although not statistically significant, these factors may act as facilitators, and regular movement and position changes at work can aid prevention.

Table 6. Inferential Analysis (χ^2) of Risk Factors and Hemorrhoid Prevalence

χ^2	df	p-value	Variable	Result
0.02	1	0.88	Gender	Not significant
4.12	3	0.25	Age Group	Not significant
15.36	1	<0.001	Chronic Constipation	Significant
9.45	2	0.009	Physical Activity	Significant
6.28	2	0.043	Diet	Significant
2.15	2	0.34	Occupation	Not significant
5.88	2	0.053	Prolonged Sitting Duration	Nearly significant

These results indicate that chronic constipation, physical activity level, and diet are the most significant factors associated with hemorrhoid prevalence in the study population. Gender, age, and occupation did not have a significant effect, while prolonged sitting may be a potential risk factor requiring further investigation in future studies.

Results

The present study aimed to assess the prevalence and risk factors of hemorrhoids among patients attending the Abu Ali Sina Balkhi Teaching Regional Hospital. Data from 80 patients were analyzed. The results indicated that of the 80 patients, 48 (60%) were male and 32 (40%) were female. The most frequent age group was 30–39 years (35%), while the least represented group was ≥50 years (17.5%). Regarding prevalence, 46 patients (57.5%) were diagnosed with hemorrhoids, including 28 males and 18 females. Statistical analysis revealed no significant association between gender or age group and hemorrhoid prevalence ($p>0.05$), suggesting that hemorrhoids are common in both sexes and demographic characteristics do not directly influence prevalence.

Lifestyle factors analysis showed that chronic constipation was one of the most significant contributors to hemorrhoid development; among 36 patients with constipation, 28 were diagnosed with hemorrhoids, and chi-square analysis confirmed

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a significant relationship between constipation and disease prevalence (χ^2=15.36, p<0.001). Additionally, patients with low physical activity were more likely to develop hemorrhoids; 30 out of 40 patients with low activity were affected, which was statistically significant (χ^2=9.45, p=0.009). A low-fiber diet was also significantly associated with hemorrhoid prevalence; among 30 patients with a low-fiber diet, 20 were diagnosed with hemorrhoids (χ^2=6.28, p=0.043). These findings indicate that unhealthy lifestyle, chronic constipation, and poor nutrition play a prominent role in hemorrhoid development.

Occupational factors and prolonged sitting were also examined. The majority of patients had sedentary occupations (42 patients), of whom 26 were diagnosed with hemorrhoids; however, statistical analysis showed no significant association between occupational status and hemorrhoid prevalence (χ^2=2.15, p=0.34). Prolonged sitting was somewhat associated with increased hemorrhoid prevalence; patients sitting more than 8 hours per day were more affected, though this association did not reach statistical significance (χ^2=5.88, p=0.053).

Overall, the findings indicate that hemorrhoids are a multifactorial condition, with lifestyle factors, chronic constipation, and low-fiber diet having the greatest influence on prevalence, whereas demographic characteristics and occupational factors play a lesser role. These results are consistent with global studies and emphasize that lifestyle modification, constipation prevention, and increased physical activity can contribute to reducing both prevalence and complications of hemorrhoids.

Discussion

The study findings indicate a high prevalence of hemorrhoids among patients attending Abu Ali Sina Balkhi Teaching Regional Hospital, with unhealthy lifestyle, chronic constipation, and low-fiber diet being the most significant factors associated with disease occurrence. These results align with previous studies; for instance, Sun and Migaly (2016) in a systematic review reported that a low-fiber diet and chronic constipation increase anal pressure and are major contributors to hemorrhoid development. The present study also confirms that low physical activity increases the risk of hemorrhoids, consistent with Feldman, Friedman, and Brandt, who reported that

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physical inactivity reduces blood flow in the anal region and leads to venous dilation.

Although some studies have indicated higher hemorrhoid prevalence among women due to pregnancy and hormonal changes, the current study found no significant effect of gender on disease prevalence. This discrepancy may be attributed to the limited sample size, differences in women's lifestyle within the study population, or age distribution of patients. In this specific population, lifestyle factors and chronic constipation appear to have a more determining role than gender.

The study further demonstrated that prolonged sitting and occupational status may act as facilitating factors, although statistical analysis did not show significance. This finding aligns partially with global research emphasizing that sedentary and prolonged sitting occupations increase anal venous pressure and predispose individuals to hemorrhoids. However, limitations in sample size and the number of patients in each occupational category may have contributed to the lack of statistical significance; hence, larger studies could better clarify these associations.

In summary, the study highlights that hemorrhoids are a multifactorial condition, with lifestyle factors playing the most critical role in prevalence. These findings are consistent with the theoretical basis that anal venous dilation is caused by intra-abdominal pressure and environmental factors. Therefore, dietary modification, increased fiber and fluid intake, prevention of constipation, and regular physical activity can reduce hemorrhoid prevalence and complications. The study also provides a scientific basis for implementing educational and preventive programs at Abu Ali Sina Balkhi Teaching Regional Hospital, demonstrating that attention to patient lifestyle can have a significant impact on the management of anorectal disorders.

Conclusion

The present study demonstrated that hemorrhoids are a common condition among patients attending Abu Ali Sina Balkhi Teaching Regional Hospital, with multiple factors contributing to its occurrence. The findings revealed that disease prevalence is directly associated with patients' lifestyle, particularly chronic constipation, low-fiber diet, and low physical activity, whereas demographic characteristics such as gender and age group showed no significant association with hemorrhoid occurrence. Prolonged

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sitting may act as a facilitating factor, although it did not reach statistical significance in this study.

These results are consistent with international literature, highlighting that unhealthy lifestyle plays a decisive role in hemorrhoid prevalence. The findings indicate that modification of lifestyle behaviors—including increased dietary fiber intake, prevention of constipation, and encouragement of regular physical activity—can help reduce disease prevalence. Moreover, patient education and counseling to modify prolonged sitting habits and improve dietary practices can be effective in the management and prevention of hemorrhoids.

Overall, this study provides a scientific basis for preventive and management planning at Abu Ali Sina Balkhi Teaching Regional Hospital and emphasizes that attention to patients' lifestyle factors can significantly reduce the prevalence and complications of hemorrhoids. The findings may serve as a valuable reference for future research and for designing educational, health, and preventive programs in the field of anorectal disorders.

Study Limitations

Despite providing valuable findings, this study has several limitations that may affect the generalizability of the results. First, the small sample size (80 patients) may not fully represent the entire population of patients visiting Abu Ali Sina Balkhi Teaching Regional Hospital and limits the statistical power of the analyses. Second, data collection was primarily based on questionnaires and medical record reviews, which may include self-reporting errors or incomplete information. Additionally, lifestyle and occupational factors were assessed over a short period, with data collected only during a single year (1404), which may not reflect temporal variations. Furthermore, some variables such as stress, hygiene habits, and family history of hemorrhoids were not considered in this study, although they may potentially influence disease occurrence.

Recommendations

Based on the findings of this study, the following practical recommendations are proposed:

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1. **Development of educational and preventive programs:** Providing education to patients and the community on healthy nutrition, increased fiber and fluid intake, and preventive measures against chronic constipation can help reduce hemorrhoid prevalence.
2. **Promotion of regular physical activity:** Incentive programs to increase daily movement and reduce prolonged sitting in both workplace and home settings are recommended.
3. **Improvement of clinical and counseling services:** Establishing health counseling and periodic assessment for at-risk patients can facilitate early diagnosis and prevent disease progression.

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