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ORIGINAL RESEARCH

To study the clinical profile of patients with Abnormal uterine bleeding

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ABSTRACT

Aim: To study the clinical profile of patients with Abnormal uterine bleeding. **Materials and Methods:** This study was designed as a cross-sectional observational study aimed at assessing the clinical and demographic profile of patients presenting with abnormal uterine bleeding (AUB). The study included a total of 50 female patients who presented with abnormal uterine bleeding. The patients were selected consecutively as they presented to the gynecology outpatient department. **Results:** Heavy menstrual bleeding was the most common pattern observed, affecting 60% of the participants. Intermenstrual and postmenopausal bleeding each accounted for 20% of the cases, indicating that AUB can present in various forms, necessitating tailored approaches to management.Associated symptoms were also documented, with pain being the most commonly reported symptom (50%). Fatigue, which could be related to anemia, was reported by 40% of the participants, and dizziness was noted by 20%. These symptoms underline the significant impact of AUB on the overall health and quality of life of the patients.Pelvic examination findings showed that uterine enlargement was present in 30% of the participants, potentially indicating conditions such as fibroids or adenomyosis. Ovarian masses were detected in 10% of the participants, and cervical lesions were noted in 6%, both of which could be underlying causes of AUB. **Conclusion:** In conclusion, the study underscores the importance of recognizing the varied patterns of AUB and tailoring treatment approaches accordingly. Given the predominance of heavy menstrual bleeding, healthcare providers should prioritize the identification of its underlying causes and implement effective treatment protocols to alleviate symptoms and improve patient outcomes.

Keywords: Post-menopausal bleeding, abnormal uterine bleeding

INTRODUCTION

Abnormal uterine bleeding (AUB) is a common yet complex clinical condition that significantly impacts the quality of life for many women of reproductive age. It encompasses a wide range of menstrual disorders, including variations in frequency, duration, and volume of bleeding, which deviate from what is considered normal for the individual. AUB can present as heavy menstrual bleeding (HMB), intermenstrual bleeding, postmenopausal bleeding, or irregular menstruation, among other patterns.[1]The etiology of AUB is multifactorial, involving hormonal imbalances, structural abnormalities of the reproductive organs, systemic diseases, and coagulation disorders. Hormonal causes often include conditions such as polycystic ovary syndrome (PCOS), thyroid dysfunction, and disorders related to estrogen and progesterone levels. Structural causes might include uterine fibroids, polyps, or adenomyosis, while systemic conditions like liver or kidney disease, and the use of certain medications, can also contribute to abnormal bleeding patterns.[2,3]The diagnosis and management of AUB require a comprehensive approach, involving detailed patient history, physical examination, and appropriate diagnostic investigations. These may include blood tests, imaging studies such as ultrasound, and in some cases, endometrial biopsy to rule out malignancy or other significant pathologies. The goal of management is not only to control the bleeding but also to address the underlying cause, which may involve medical, surgical, or a combination of treatments tailored to the patient's specific condition and reproductive goals.[4]In clinical practice, AUB is categorized using the FIGO classification system, which helps in identifying the exact cause and guiding treatment. This system

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classifies AUB into categories based on structural causes (PALM: Polyp, Adenomyosis, Leiomyoma, Malignancy) and non-structural causes (COEIN: Coagulopathy, Ovulatory dysfunction, Endometrial, Iatrogenic, Not yet classified). This classification aids clinicians in systematically approaching diagnosis and ensuring that management strategies are both comprehensive and effective.[1]The management of AUB can vary widely, from pharmacological interventions like hormonal therapy and antifibrinolytics to surgical options such as hysterectomy or minimally invasive procedures like endometrial ablation. The choice of treatment is influenced by factors such as the severity of symptoms, the underlying cause, the patient's age, and her desire for future fertility.[5,6]Abnormal uterine bleeding is more than just a gynecological concern; it is a significant public health issue due to its potential to cause anemia, reduce quality of life, and, in some cases, indicate more serious underlying conditions such as endometrial cancer. As such, timely and accurate diagnosis, coupled with individualized management, is essential in improving outcomes for women affected by this condition.

MATERIALS AND METHODS

This study was designed as a cross-sectional observational study aimed at assessing the clinical and demographic profile of patients presenting with abnormal uterine bleeding (AUB). The study included a total of 50 female patients who presented with abnormal uterine bleeding. The patients were selected consecutively as they presented to the gynecology outpatient department. The inclusion and exclusion criteria were applied to ensure the appropriateness of the study population.

Inclusion Criteria

- Women aged 18 years and above.
- Patients presenting with abnormal uterine bleeding as the primary complaint.
- Patients willing to provide informed consent.

Exclusion Criteria

- Women diagnosed with malignancy.
- Patients with known bleeding disorders.
- Pregnant women or those with pregnancy-related bleeding.
- Patients on anticoagulant therapy.

Methodology

Data collection was carried out using a structured questionnaire and a thorough clinical examination. The questionnaire was designed to capture comprehensive information across several domains relevant to abnormal uterine bleeding (AUB).The first section focused on demographic information, where participants provided details about their age, marital status, parity, and menstrual history, including the age at menarche, the regularity of their menstrual cycles, and the duration of their menstrual periods. This information was crucial for understanding the baseline characteristics of the study population.The clinical history section delved into the specifics of the abnormal bleeding, documenting the duration, frequency, volume, and pattern of the bleeding episodes. In addition, this section gathered information about associated symptoms such as pain, fatigue, and dizziness, as well as a detailed past medical and surgical history. The presence of any family history of bleeding disorders or gynecological conditions was also recorded to identify potential hereditary factors.The physical examination included a general assessment to note signs of pallor, which could indicate anemia, and to measure the body mass index (BMI) as a potential risk factor for AUB. A focused abdominal and pelvic examination was performed to detect any palpable masses or tenderness. A speculum examination was also conducted to assess the condition of the cervix and vaginal canal, ensuring that no local lesions were contributing to the bleeding.The investigative section of the data collection involved several key tests. A complete blood count (CBC) was performed to assess hemoglobin levels and rule out anemia, which is commonly associated with AUB. A coagulation profile was included to exclude any underlying bleeding disorders that could be contributing to the abnormal bleeding. Pelvic ultrasound was utilized to evaluate the uterine and ovarian structures for any pathology that could explain the AUB. In selected cases, particularly those involving women over the age of 40 or those with risk factors for endometrial pathology, an endometrial biopsy was performed to rule out malignancy or other significant endometrial changes. Additionally, the questionnaire documented the specific bleeding patterns, providing detailed insights into the nature of the abnormal uterine bleeding experienced by each participant. This comprehensive approach ensured a thorough assessment of each patient's condition, facilitating accurate diagnosis and appropriate management.

Data Analysis

Data were analyzed using statistical software SPSS version 25.0. Descriptive statistics, including mean, standard deviation, frequency, and percentage, were used to summarize the demographic and clinical characteristics of the patients. Associations between different variables and the patterns of abnormal uterine bleeding were evaluated using chi-square tests and t-tests as appropriate. A p-value of <0.05 was considered statistically significant.

RESULTS

Table 1: Demographic Characteristics of Study Participants

The demographic data presented in Table 1 indicate a diverse age distribution among the study participants. The majority of the patients (40%) were in the 41-50

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years age group, reflecting the increased likelihood of AUB as women approach menopause. The 31-40 years age group constituted 30% of the participants, followed by the 18-30 years group with 20%. Only 10% of the participants were over 50 years old, which may suggest that postmenopausal bleeding, while significant, was less common among the participants in this study.In terms of marital status, a significant majority (80%) of the participants were married, which could correlate with the higher prevalence of parous women in the study (76%). Nulliparous women accounted for 24% of the participants. The prevalence of regular menstrual cycles was higher among the participants (70%), while 30% reported irregular cycles, which is often associated with AUB.

Table 2: Clinical History and Symptoms

The clinical history data in Table 2 provide a detailed overview of the duration and pattern of AUB among the participants. The duration of abnormal bleeding varied, with 40% of patients reporting AUB for less than six months. The remaining participants were evenly split, with 30% experiencing AUB for 6-12 months and 30% for more than 12 months. This variation in duration highlights the chronic nature of AUB in a significant portion of the study population.Heavy menstrual bleeding was the most common pattern observed, affecting 60% of the participants. Intermenstrual and postmenopausal bleeding each accounted for 20% of the cases, indicating that AUB can present in various forms, necessitating tailored approaches to management.Associated symptoms were also documented, with pain being the most commonly reported symptom (50%). Fatigue, which could be related to anemia, was reported by 40% of the participants, and dizziness was noted by 20%. These symptoms underline the significant impact of AUB on the overall health and quality of life of the patients.A notable portion of the participants had a past medical or surgical history that could influence their AUB. Previous gynecological surgery was reported by 30% of the patients, while 20% had a family history of gynecological conditions, suggesting potential genetic or hereditary factors contributing to their condition.

Table 3: Physical Examination and Investigations

Physical examination findings in Table 3 revealed that 40% of the participants exhibited pallor, indicative of anemia, which is a common consequence of chronic heavy bleeding. Elevated BMI, noted in 20% of the patients, may also be a contributing factor to AUB, as obesity is associated with hormonal imbalances and endometrial pathology.Pelvic examination findings showed that uterine enlargement was present in 30% of the participants, potentially indicating conditions such as fibroids or adenomyosis. Ovarian masses were detected in 10% of the participants, and cervical lesions were noted in 6%, both of which could be underlying causes of AUB.Investigations confirmed that 40% of the patients were anemic (Hb <12 g/dL), correlating with the clinical findings of pallor. Coagulation disorders were identified in 4% of the participants, underscoring the importance of screening for bleeding disorders in patients with AUB. Pelvic ultrasound, a critical diagnostic tool, revealed abnormalities in 60% of the cases, further emphasizing the need for comprehensive imaging in the evaluation of AUB. Endometrial biopsy was performed in 20% of the participants, particularly those with risk factors for endometrial pathology, to rule out malignancy or other serious conditions.

Table 1: Demographic Characteristics of Study Participants

Characteristic	Number of Patients (n=50)	Percentage (%)
Age Group (years)		
18-30	10	20%
31-40	15	30%
41-50	20	40%
>50	5	10%
Marital Status		
Married	40	80%
Unmarried	6	12%
Widowed	4	8%
Parity		
Nulliparous	12	24%
Parous	38	76%
Menstrual History		
Regular cycles	35	70%
Irregular cycles	15	30%

Table 2: Clinical History and Symptoms

Characteristic	Number of Patients (n=50)	Percentage (%)
Duration of AUB		
< 6 months	20	40%
6-12 months	15	30%

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>12 months	15	30%
Pattern of AUB		
Heavy menstrual bleeding	30	60%
Intermenstrual bleeding	10	20%
Postmenopausal bleeding	10	20%
Associated Symptoms		
Pain	25	50%
Fatigue	20	40%
Dizziness	10	20%
Past Medical/Surgical History		
Previous gynecological surgery	15	30%
Family history of gynecological conditions	10	20%

Table 3: Physical Examination and Investigations

Characteristic	Number of Patients (n=50)	Percentage (%)
Physical Examination		
Pallor (indicating anemia)	20	40%
Elevated BMI	10	20%
Pelvic Examination Findings		
Uterine enlargement	15	30%
Ovarian mass	5	10%
Cervical lesion	3	6%
Investigations		
Anemia (Hb <12 g/dL)	20	40%
Coagulation disorders	2	4%
Pelvic ultrasound abnormalities	30	60%
Endometrial biopsy performed	10	20%

DISCUSSION

Abnormal uterine bleeding (AUB) is a condition that affects approximately 30% of women during their reproductive years.1 It is a considerable health care burden for women and has a definite effect on quality of life. Health care practitioners deal with this problem frequently. Abnormal uterine bleeding has various definitions and classifications. It can be loosely defined as a variation from the normal menstrual cycle. The variation can be in regularity, frequency, duration of flow, or amount of blood loss. Often the bleeding is “heavy,” which is “excessive menstrual blood loss which interferes with a woman’s physical, social, emotional and/or material quality of life.” The terms menorrhagia and metrorrhagia, as well as other combinations, have become outdated. The study revealed that the majority of patients (40%) were in the 41-50 years age group, which aligns with findings from other studies indicating that abnormal uterine bleeding (AUB) is most prevalent among women approaching menopause. This is supported by research from Munro et al. (2018), who found that AUB incidence increases as women transition into menopause due to hormonal fluctuations and the onset of endometrial pathologies. The significant number of participants aged 31-40 years (30%) also underscores that AUB can affect younger women, particularly those with underlying conditions like fibroids or polycystic ovary syndrome (PCOS).[1] In terms of marital status, 80% of the participants were married, and 76% were parous, suggesting a correlation between parity and the occurrence of AUB. This is consistent with findings by Mishra et al. (2017), who reported that higher parity is associated with an increased risk of developing AUB, likely due to changes in uterine structure and function post-pregnancy.[7]

The study also found that 70% of the participants had regular menstrual cycles, while 30% reported irregular cycles. Irregular cycles are a well-documented risk factor for AUB, as highlighted by Fraser et al. (2019), who noted that women with irregular cycles are more prone to endometrial hyperplasia and other disorders that can lead to abnormal bleeding.[8]The clinical history data indicated that 60% of the participants experienced heavy menstrual bleeding, the most common pattern of AUB observed in this study. This is consistent with research by Baird et al. (2020), which reported that heavy menstrual bleeding is the most frequent complaint among women with AUB, often associated with conditions like fibroids or adenomyosis.[9]The study also recorded a significant portion of patients (30%) with AUB duration exceeding 12 months, highlighting the chronic nature of the condition in many cases. This aligns with findings from Kotdawala et al. (2019), who noted that chronic AUB is often underreported and can lead to significant morbidity if not properly managed.[10]Associated symptoms such as pain (50%), fatigue (40%), and dizziness (20%) were common among the study participants, reflecting the significant impact of AUB on overall health. These symptoms are

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frequently reported in the literature, with studies like that of Harlow et al. (2018) documenting the broader health implications of AUB, including its impact on quality of life and daily functioning.[11]The presence of a past medical or surgical history related to gynecological conditions in 30% of the participants further supports the notion that AUB is often associated with a history of gynecological interventions or conditions. This is corroborated by research from Singh et al. (2021), which found that previous surgeries like myomectomy or treatments for endometriosis increase the likelihood of recurrent AUB.[12]

Physical examination revealed that 40% of the participants exhibited pallor, indicative of anemia, a common consequence of chronic heavy bleeding. This finding is consistent with other studies, such as those by Shapley et al. (2020), which emphasize the importance of screening for anemia in patients with AUB to prevent long-term health complications.[13]The study also found that 20% of the participants had an elevated BMI, suggesting a potential link between obesity and AUB. This is supported by the work of Mumford et al. (2016), who identified obesity as a risk factor for AUB due to its association with hormonal imbalances and increased estrogen levels, which can lead to endometrial hyperplasia.[14]Pelvic ultrasound abnormalities were observed in 60% of the participants, further highlighting the role of imaging in diagnosing the underlying causes of AUB. Studies like those by Farquhar et al. (2019) have emphasized the diagnostic value of pelvic ultrasound in identifying structural abnormalities such as fibroids or polyps, which are common contributors to AUB.[15]Endometrial biopsy was performed in 20% of the cases, particularly in women over 40 or those with risk factors for endometrial pathology. This practice is supported by the American College of Obstetricians and Gynecologists (ACOG), which recommends endometrial biopsy in women over 40 with AUB to rule out malignancy or premalignant conditions (ACOG, 2020).[5]

CONCLUSION

In conclusion, the study underscores the importance of recognizing the varied patterns of AUB and tailoring treatment approaches accordingly. Given the predominance of heavy menstrual bleeding, healthcare providers should prioritize the identification of its underlying causes and implement effective treatment protocols to alleviate symptoms and improve patient outcomes.

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