Prevalence of Endometrial Hyperplasia in Cases Admitted with Abnormal Uterine Bleeding (AUB) at Our Hospital

Abstract

Background: Abnormal uterine bleeding (AUB) is a frequent cause for gynaecological consultations, often linked to underlying endometrial pathology. Endometrial hyperplasia (EH) is of clinical importance, particularly when atypia is present, due to its potential to progress to endometrial carcinoma. This study investigates the prevalence of EH in patients admitted with AUB to our hospital.

Methods: A retrospective study was conducted, including 73 patients admitted with AUB who underwent endometrial biopsy. The prevalence of EH was assessed, with cases categorized as either hyperplasia without atypia or hyperplasia with atypia.

Results: Out of the 73 patients, 28 cases (38.36%) were diagnosed with EH. Of these, 25 cases (34.25%) had hyperplasia without atypia, while 3 cases (4.1%) had hyperplasia with atypia, highlighting the importance of prompt evaluation in preventing progression to malignancy.

Conclusion: The findings underscore the necessity of histopathological assessment in AUB cases, especially for identifying atypical hyperplasia, which carries a higher risk of endometrial cancer. Early detection is critical for effective management and prevention of malignancy.

Introduction

Abnormal uterine bleeding (AUB) is one of the most common gynecological complaints and can indicate underlying uterine pathology. AUB is especially prevalent in perimenopausal and postmenopausal women, where the risk of endometrial abnormalities, such as hyperplasia or carcinoma, is higher. AUB's differential diagnosis ranges from benign conditions to premalignant and malignant disorders, including endometrial hyperplasia (EH).

EH is characterized by the proliferation of the endometrial lining due to prolonged unopposed estrogen exposure. EH is classified into hyperplasia without atypia, which has a lower risk of progression to malignancy, and hyperplasia with atypia, a premalignant condition with high malignant potential. Timely diagnosis of EH, especially with atypia, is crucial for preventing progression to endometrial carcinoma.

This study aims to evaluate the prevalence of EH among patients admitted with AUB at our hospital. These findings will provide insight into the local epidemiology of EH and inform clinical practice in managing AUB.

Materials and Methods

Study Design

This retrospective observational study was conducted at our hospital, focusing on patients admitted with AUB. The primary aim was to assess the prevalence of endometrial hyperplasia in these patients.

Study Population

A total of 73 patients presenting with AUB were included. All patients underwent endometrial biopsy as part of the diagnostic workup. Inclusion criteria comprised women with AUB who consented to endometrial biopsy. Patients with a prior diagnosis of endometrial carcinoma were excluded.

Data Collection

Endometrial biopsies were processed according to standard histopathological protocols. An experienced pathologist classified samples by the presence or absence of EH. Diagnosed EH cases were categorized as hyperplasia without atypia or hyperplasia with atypia, per the WHO 2014 classification.

Statistical Analysis

The prevalence of EH was calculated as a proportion of AUB cases. Subgroup analysis differentiated between hyperplasia without atypia and hyperplasia with atypia. Descriptive statistics, including frequencies and percentages, summarized the data.

Results

Demographic and Clinical Characteristics

Table 1:Represents the demographic of the study population.

Age Distribution	Number of Patients	Percentage (%)
20-30 years	15	20.5
30-40 years	23	31.5
40-50 years	35	47.9

Table 2: represents the morphological characteristics of endometrium

Endometrial Polyp	5	6.85
Endometrial Hyperplasia without Atypia	25	34.25
Endometrial Hyperplasia with Atypia	3	4.1
Nonspecific Inflammatory Findings	10	13.7
Normal Findings	30	41.1

Table 3: Depicts Menstrual Patterns

Menorrhagia	60	82.2
Oligomenorrhea	9	12.3

Table 4: Other Conditions

Polycystic Ovary Syndrome (PCOS)	20	27.4
Uterine Fibroids	7	9.6
Overweight	30	41.1
Tamoxifen Intake	2	2.7
Hypertension	25	34.2
Type 2 Diabetes	7	9.6

Key Findings

A total of 73 patients with AUB were analyzed, with 28 cases (38.36%) diagnosed with EH. Among these, 25 cases (34.25%) had hyperplasia without atypia, while 3 cases (4.1%) had hyperplasia with atypia, representing a high-risk subgroup for malignant progression.

Discussion

This study reports a significant prevalence of endometrial hyperplasia (EH) in patients presenting with abnormal uterine bleeding (AUB) at our hospital, with 38.36% of cases showing histopathological evidence of EH. This finding aligns with other studies that recognize EH as a common underlying pathology in AUB, particularly among perimenopausal and postmenopausal women.

Comparison with Similar Studies

Our study's EH prevalence of 38.36% is within the upper range of previously reported data, where EH prevalence in AUB patients typically ranges from 15% to 40%. For instance, a study by Reed et al. (2009) found a 22% prevalence of EH in women with AUB, although they noted variations based on age and risk factors, suggesting that our higher prevalence may reflect patient demographics or institutional differences in diagnostic thresholds.

Similar findings were reported by Trimble et al. (2012), who observed that EH was a frequent diagnosis among AUB cases, especially in those aged over 40 years. Our study echoes these findings, with a significant proportion of EH cases occurring in women aged 40–50 years, highlighting the need for targeted screening in this age group.

In addition, our finding of atypical hyperplasia in 4.1% of cases is comparable to that of other studies. Lacey et al. (2010) noted that atypical hyperplasia in AUB patients typically ranges between 2% and 10%, with our findings falling toward the lower end of this spectrum. This consistency suggests a relatively stable incidence rate of atypical hyperplasia across diverse populations, reinforcing its critical role as a high-risk factor for progression to endometrial carcinoma.

Clinical Implications

The high prevalence of EH observed in this study underscores the importance of comprehensive histopathological evaluation in AUB cases, especially for early detection of atypical hyperplasia, which has a well-documented risk of progression to endometrial cancer. Studies indicate that without intervention, atypical hyperplasia has a 20-30% chance of progressing to carcinoma. This is

consistent with findings by Kurman et al. (2014), who highlighted the necessity of aggressive management strategies for atypical hyperplasia, including the use of progestin therapy or even hysterectomy for those at high risk.

Our study also aligns with the recommendations by the American College of Obstetricians and Gynecologists (ACOG), which emphasizes endometrial sampling in AUB, particularly in women over 35 and those with prolonged or heavy bleeding. Early detection allows for appropriate management, reducing the risk of progression to malignancy and improving patient outcomes.

Study Limitations

This study's retrospective, single-center nature may limit the generalizability of the findings. Additionally, the sample size is relatively small, and future research with larger, multi-center cohorts would help validate these findings. Furthermore, the lack of long-term follow-up limits our understanding of the progression and outcomes of EH, particularly in atypical cases.

Future Research Directions

Longitudinal studies following AUB patients with diagnosed EH over time would offer valuable insights into the natural history and risk factors for progression. Additionally, comparisons across different geographic and demographic populations could better inform screening guidelines tailored to regional or institutional patient profiles.

Conclusion

Endometrial hyperplasia is prevalent in patients presenting with AUB, with 38.36% showing evidence of EH. Among these, 4.1% had atypical hyperplasia, underscoring the importance of timely histopathological evaluation. Early identification and management of EH, especially atypical cases, are essential in preventing malignancy.

Further research involving larger, multicenter studies is recommended to confirm these findings and optimize management protocols for AUB patients.

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