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Clinic pathological study on AUB patients undergoing hysterectomy in a tertiary care hospital, Bengaluru: A cross sectional study

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Abstract

Background: Abnormal uterine bleeding (AUB) is one of the most common debilitating menstrual problems and has remained one of the most frequent indications for hysterectomy in developing countries. AUB requires careful evaluation due to the risk of endometrial malignancy [1]. Approximately in 40% of hysterectomy specimens, no definite organic pathology could be established [2]. The objective of present study is to find out the distribution of various uterine pathology in hysterectomy specimens among women with AUB.

Methods: In the present study, thirty patients with AUB undergoing hysterectomy were included and evaluated for various uterine pathology.

Results: Majority of the study participants belonged to the age group between 35-40 years (57%) of age. The mean age of the study participants was found to be 40.90±3.24 years. Majority of the study participants had Menorrhagia (83%). 14% of the study participants had postmenopausal bleeding. 70% of the study participants had proliferative endometrium findings on histopathology. 30% of the study participants had secretory endometrium. 64% of the study participants were diagnosed as AUB (L) based on histopathology with 25% of the study participants diagnosed as AUB (A) based on PALM-COEIN system of classification of AUB.

Conclusions: Hysterectomy is a very commonly performed major surgical procedure in gynaecological practice. This study confirms that benign diseases are more common than their malignant counterparts and the most common pathology identified is leiomyoma. To identify the exact cause is essential to successfully treat patients with AUB.

Keywords: Endometrial pathology, abnormal uterine bleeding, hysterectomy

Introduction

Abnormal uterine bleeding is a broad term that describes irregularities in the menstrual cycle involving frequency, regularity, duration, and volume of flow outside of pregnancy. Bleeding is said to be abnormal when the pattern is irregular, abnormal duration (>7days), or menorrhagia or abnormal amount (>80 ml/menses) [1]. The prevalence of abnormal uterine bleeding is estimated to be in the range of 3% to 30%, with a higher incidence occurring around menarche and per menopause [1, 2]. Final diagnosis of AUB always correlated with histopathology study. The treatment for AUB includes both medical therapies and surgical procedures [3]. Surgical options include Hysteroscopic polypectomy, endometrial ablation, Myomectomy, Hysterectomy. Hysterectomy is one of the most commonly performed surgeries in the world [4]. The purpose of this study was to find out the distribution of various uterine pathology in hysterectomy specimens among women with AUB.

Objective of the study

- To find out the distribution of various uterine pathology in hysterectomy specimens among women with AUB.

Methodology

- **Study Design:** Cross-sectional study
- **Study Duration:** 6 months (January 2022 - June 2022).
- **Study Area:** MVJ Medical College and Research Hospital, Bangalore.
- **Study Participants:** Women with abnormal uterine bleeding undergoing hysterectomy in MVJ Medical College and Research Hospital, Bangalore.

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Inclusion Criteria

Women with Abnormal uterine bleeding undergoing hysterectomy.

Exclusion Criteria

Patients not willing to give consent.

Estimation of Sample Size

On the basis of statistics obtained from Department of Obstetrics & Gynaecology, M.V.J. Medical College and Research Hospital, an average of 10 cases per month fitting the criteria of the study with study duration of 6 months, we can expect to have N=60. Based on this population size, using YAMANE equation, for a known population size, sample size (n) equal to

$$N = N/1 + Ne^2$$

N = Sample size

N = Population size.

E = Margin of error (for 95% of confidence level, margin error = 0.05).

$$N = 60/1 + 60 * 0.05 * 0.05 = 60/1.15 = 52.17$$

Therefore after approximating, the sample size of the study participants was fixed at 60.

Results

Table 1: Distribution of the study participants according to their age group

Age	Frequency N	Percentage %
35-40 years	34	57
41-45 years	20	33
46-50 years	6	10
Mean ± SD	40.90 ± 3.24	

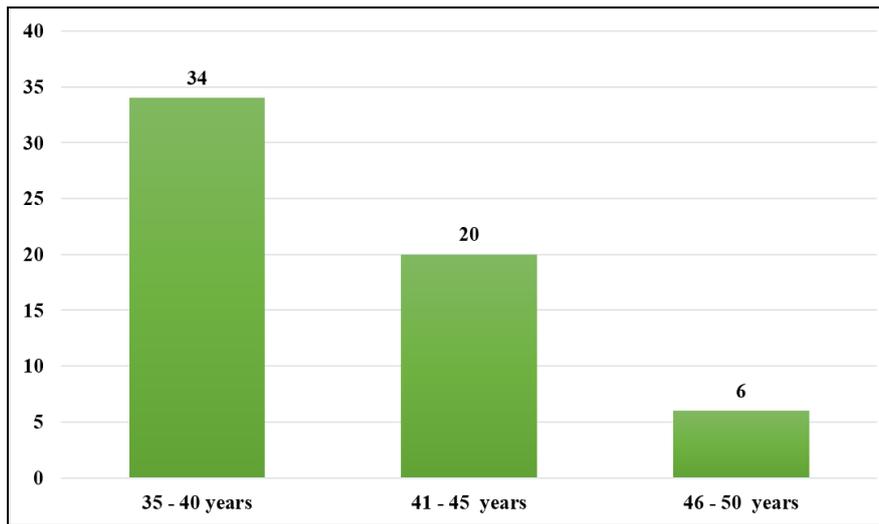


Fig 1: Distribution of the study participants according to their age group

Majority of the study participants belonged to the age group between 35-40 years (57%) of age. The mean age of the study participants was found to be 40.90±3.24 years.

Table 2: Menstrual irregularities among Hypothyroid study population (N = 18)

Menstrual irregularities	Frequency N	Percentage %
Menorrhagia	50	83
Polymenorrhea	2	3
Postmenopausal bleeding	8	14

Majority of the study participants had Menorrhagia (83%). 14% of the study participants had postmenopausal bleeding.

Table 3: Distribution of the study participants based on Histopathologically findings

Histopathologically findings	Frequency N	Percentage %
Secretory Endometrium	18	30
Proliferative Endometrium	42	70

Majority of the study participants had proliferative endometrium findings on histopathology (70%). 30% of the study participants had secretory endometrium.

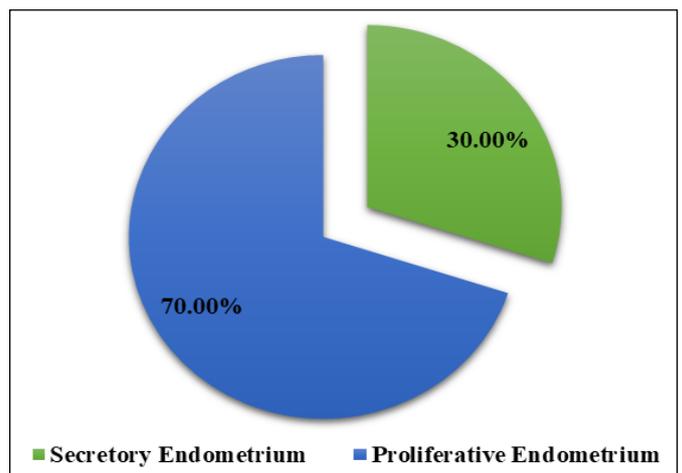


Fig 2: Distribution of the study participants based on Histopathologically findings

Table 4: Distribution of Histopathologically diagnosis among the study participants

Histopathologically diagnosis	Frequency N	Percentage %
AUB (L)	38	64
AUB (A)	15	25
AUB (L) (A)	5	8
AUB (P)	2	3

In the present study, 64% of the study participants were diagnosed as AUB (L) based on histopathology followed by

AUB (A) [25%].

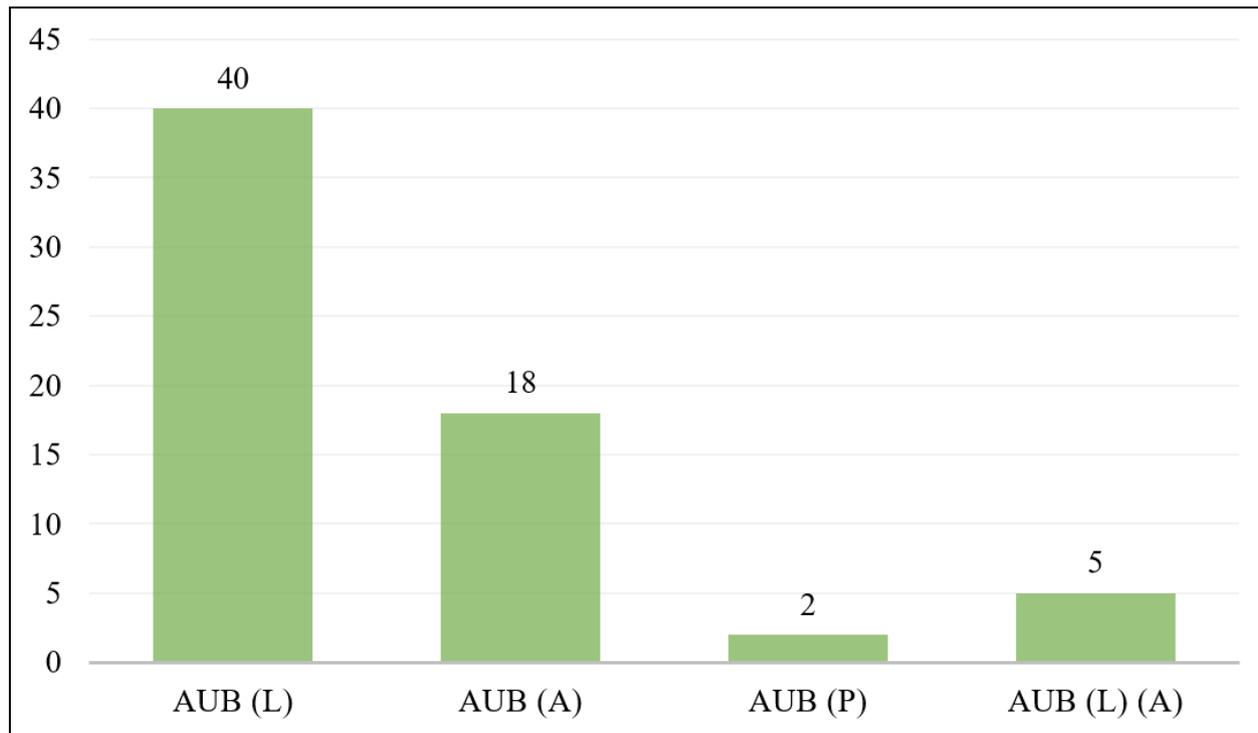


Fig 3: Distribution of Histopathologically diagnosis among the study participants

Discussion

This study included 60 study participants with abnormal uterine bleeding in attending the Obstetrics and Gynaecology OPD/IPD of MVJ Medical College and Research Hospital, Bangalore to find out the distribution of various uterine pathology in hysterectomy specimens among women with AUB.

In the present study, Majority of the study participants belonged to the age group between 35-40 years (57%) of age. The mean age of the study participants was found to be 40.90 ± 3.24 years. In a study done by Talukdar B *et al.* [6], 69.67% of the study participants were in the age group between 40 and 45 years. In a study done by Sreelakshmi U *et al.* [7], the mean age of the study participants was found to be 46.68 ± 2.03 years, which is higher than the findings of the present study. In the present study, Majority of the study participants had Menorrhagia (83%). 14% of the study participants had postmenopausal bleeding. In a study done by Pillai SS [8], majority of women (46.6%) presented with menorrhagia and 3.4% of women presented with postmenopausal bleeding. In a study done by Singh A *et al.* [9], the most common complaint among the study participants was found to be Menorrhagia (96.4%). These findings are similar to the findings of the present study.

In the present study, Majority of the study participants had proliferative endometrium findings on histopathology (70%). 30% of the study participants had secretory endometrium. In a study done by Sreelakshmi U *et al.* [7], the most common Histopathologically findings was proliferative endometrium (30.3%), secretory endometrium (27.4%). In the present study, 64% of the study participants were diagnosed as AUB (L) based on histopathology followed by AUB (A) [25%]. In a study done by Mishra D *et al.* [10], AUB-L was found in majority of the study participants (37.28%). In a study done by Singh A *et al.* [9], Majority of the study participants (36.75%) were diagnosed with AUB-L. These findings are similar to the findings of the present study.

Conclusion

Hysterectomy is a very commonly performed major surgical procedure in gynaecological practice. This study confirms that benign diseases are more common than their malignant counterparts and the most common pathology identified is leiomyoma. To identify the exact cause is essential to successfully treat patients with AUB. The PALM-COEIN classification helps to practically as certain the cause of AUB thereby aiding in the treatment of patients.

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