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Original Research Article

Assessment of the Distribution of Various Uterine Pathology in Hysterectomy Specimens among Women with AUB: A Cross Sectional Study

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Abstract

Aim: The purpose of this study was to find out the distribution of various uterine pathology in hysterectomy specimens among women with AUB.

Methods: A prospective study was conducted in the department of Obstetrics and Gynecology at Nalanda medical College and Hospital, Patna, Bihar, India over a period of one year. 100 AUB cases were included in the study. All cases of AUB who underwent hysterectomy were included in the study.

Results: 45 % cases belong to 5th decade 41-50 years followed by 35% cases belong to the 4th decade 31-40 years. Maximum number of cases 52% was second para. HMB was seen in 48% cases followed by dysmenorrhoea in 16% and irregular bleeding in 12% cases. In the study clinically, 46% were diagnosed to have fibroid, 24% had Adenomyosis. In the study, 44% had Proliferative, 28% had Secretory, 12% had endometrial hyperplasia and 9% had Endometrial carcinoma. In the study 40% had Leiomyoma, 20% had Adenomyosis, 12% had Endometrial hyperplasia.

Conclusion: This study confirms that benign diseases are more common than their malignant counterparts and the most common pathology identified is leiomyoma. The present study confirms a good correlation between clinical indications and histopathology especially in benign conditions.

Keywords: Heavy Menstrual Bleeding, Abnormal Uterine Bleeding, Hysterectomy.

Introduction

Abnormal uterine bleeding (AUB) is defined as any change in the frequency of menstruation, duration of flow or amount of blood loss. [1,2] AUB is a common condition affecting the women of reproductive age group and may also have a significant effect on their physical, social, and emotional aspects directly affecting their quality of life. [3] AUB is a common problem encountered by women of all age groups, responsible for around 20-30% visits to out-patient department in reproductive age group. [4] According to the International Federation of Gynecology

and Obstetrics (FIGO), acute AUB could be classified as "an episode of bleeding in a woman of reproductive age, who is not pregnant, that is of sufficient quantity to require immediate intervention to prevent further blood loss." [5]

Abnormal uterine bleeding is initially managed medically. A number of minimally invasive surgical alternatives for hysterectomy do exist now, such as endometrial ablation, thermal balloon therapy and uterine artery embolization. [6] These are promising techniques but restricted availability and cost limit them from being used widely. Therefore, hysterectomy still remains the widely accepted and practiced treatment, in a developing country. [7,8] Histological assessment remains the basis in the current practice in patients of AUB as it determines the diagnosis and guides the correct management plan. [5]

Hysterectomy is one of the most commonly performed surgeries in the world. [9] Indications for hysterectomies include common conditions like Abnormal uterine bleeding, fibroid, adenomyosis, endometrial Lesions and less frequently tumors of female genital tract. [10,11] Types of hysterectomies done include subtotal hysterectomy, total abdominal hysterectomy with or without salphingoopherectomy, vaginal hysterectomy and laparoscopic method. [12]

Abnormal uterine bleeding (AUB) is one of the most frequently encountered and perplexing condition in adult women. [13] AUB may be defined as any variation from the normal menstrual cycle, & includes changes in regularity & frequency of menses, in duration of flow, or in amount of blood loss. [14] The management of AUB by clinically, investigation and confirmed by ultrasonography but there may be discrepancy in clinical and sonological and histopathological diagnosis. Final diagnosis always correlated with histopathology study. The treatment for AUB includes both medical therapies and surgical procedures. [15] Surgical options include Hystero- scopic polypectomy, Endometrial ablation, Myomectomy, Hysterectomy. Hysterectomy is one of the most commonly performed surgeries in the world. [16]

The purpose of this study was to find out the distribution of various uterine pathology in hysterectomy specimens among women with AUB.

Materials and Methods

A prospective study was conducted in the department of Obstetrics and Gynecology at Nalanda medical College and Hospital, Patna, Bihar, India over a period of one year. 100 AUB cases were included in the study. All cases of AUB who underwent hysterectomy were included in the study. The exclusion criteria of this study was a) Patients who underwent hysterectomy for causes other than AUB like molar pregnancy, invasive mole, uterovaginal prolapse and c) Hysterectomy performed for obstetrical causes.

All admitted patients with symptoms of heavy menstrual bleeding, dysmenorrhea, metrorrhagia, irregular bleeding, postmenopausal bleeding and other symptoms were examined. History included the age, parity, education, socioeconomic status, clinical symptoms, duration of symptoms and amount of blood loss, any associated comorbidities such as hypertension, diabetes and any history of previous hormonal or operative treatment. General physical examination and systemic examination was performed, then a provisional diagnosis was made. Laboratory investigations such as complete blood count, renal function test, thyroid function test, bleeding time, clotting time, Pap smear were done. Ultrasonographic examination of pelvis was done. Endometrial biopsy were preserved in 10% formalin saline and sent histopathological examination and reports were collected.

Those cases in which hysterectomy was done were preserved and sent for histopathological examination. The reports were collected and final diagnosis was made. Final diagnosis was compared.

Statistical analysis

Data was entered into Microsoft excel data sheet and was analyzed using SPSS 22 version software. Categorical data was represented in the form of Frequencies and proportions.

Results

Table 1: Patient details

Age groups	**N**	**%**
31-40	35	35
41-50	45	45
51-60	17	17
>60	3	3
Parity		
Nulliparous	5	5
1	7	7
2	52	52
3	26	26
≥4	10	10

45 % cases belong to 5th decade 41-50 years followed by 35% cases belong to the 4th decade 31-40 years. Maximum number of cases 52% was second para.

Table 2: Clinical Symptoms and USG diagnosis

Clinical Symptoms	**N**	**%**
Heavy Menstrual bleeding	48	48
Dysmenorrhea	16	16
Heavy Menstrual bleeding+ Dysmenorrhea	5	5
Heavy Menstrual bleeding+ Irregular bleeding	4	4
Irregular bleeding	12	12
Metrorrhagia	8	8
Post-menopausal bleeding	7	7
USG Diagnosis		
Fibroid	46	46
Adenomyosis	24	24
Both	6	6
DUB	12	12
Polyp	5	5
Endometrial carcinoma	4	4
Cervical carcinoma	3	3

HMB was seen (48%) followed by dysmenorrhoea (16%) and irregular bleeding (12%) cases. In the study clinically, 46% were diagnosed to have fibroid, 24% had Adenomyosis.

Table 3: Endometrial biopsy

Endometrial biopsy	**N**	**%**
Proliferative	44	44
Secretory	28	28
Endometrial Hyperplasia	12	12
Atrophy	6	6
Endometrial carcinoma	1	1
Not done	9	9

In the study 44% had Proliferative, 28% had Secretory, 12% had endometrial hyperplasia and 9% had Endometrial carcinoma.

Table 4: Post hysterectomy histopathology report

Post hysterectomy histopathology report	N	%
Leiomyoma	40	40
Adenomyosis	20	20
Both	10	10
Polyp	8	8
Endometrial hyperplasia	12	12
Normal	5	5
Endometrial carcinoma	3	3
Carcinoma cervix	2	2

In the study 40% had Leiomyoma, 20% had Adenomyosis, 12% had Endometrial hyperplasia.

Discussion

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). 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. [17,18]

45 % cases belong to 5th decade 41-50 years followed by 35% cases belong to the 4th decade 31-40 years which are comparable to Rizvi et al. [19] Their study showed that 44.5% cases belong to the 5th decade 41-50 yrs. According to study by Jairajpur et al [20] showed that 35.9 % of AUB cases in their fifth decades. Again study by Muzaffer et al [21] showed that 48.1% cases of AUB cases in their fifth decade. Maximum number of cases 52% was second para. Mohammad et al [22] in their study found that (65.9%) cases with a parity of 2 which is comparable to our study. Almost similar results were obtained in the studies by Lee NC et al [23] found a mean parity of 3.

HMB was seen (48%) followed by dysmenorrhoea (16%) and irregular bleeding (12%) cases. Rizvi et al [19] founded that 43.7% cases presentation was HMB followed by irregular bleeding compared to our study. Nayar et al [24] found HMB 49.1% cases. In the study clinically, 46% were diagnosed to have fibroid, 24% had Adenomyosis. Rizvi et al [19] showed fibroid uterus in 41.46% cases and adenomyosis in 46.36% cases and 19.% cases both fibroid uterus and adenomyosis. Mohammad N et al [22] found that fibroid uterus were diagnosed clinically in 54.1% cases.

In the study 44% had Proliferative, 28% had Secretory, 12% had endometrial hyperplasia and 9% had Endometrial carcinoma. Secretory endometrium are found in 28% cases in our study comparable to study by Jairajpuri et al20 which showed secretory endometrium was most common histopathological diagnosis followed by proliferative endometrium 28.9% and 24.9% respectively. Variation of secretory endometrium ranging from 14% to 63.5% by Bhosle et al, Takreem et al, Mirza et al, Patil et al. [25-28] Endometrial hyperplasia are found in 12.22% cases in our study as varied from study by Muzzafar et al [21] which showed endometrial hyperplasia in 18.3% cases.

In the study 40% had Leiomyoma, 20% had Adenomyosis, 12% had Endometrial

hyperplasia. Rizvi et al [19] showed that leiomyoma were found 41.46% cases. Leiomyoma was most common pathology found studies by Shergill SK et al. [29] Hysterectomy is one of the most commonly performed surgeries in the world usually done for the management of fibroid, Abnormal uterine bleeding, adenomyosis, prolapse and neoplastic lesions of the female genital tract. [10,30,31]

Conclusion

Hysterectomy is a very commonly performed major surgical procedure in gynaecological practice. A wide range of lesions were noted and the question still remains whether microscopic assessment and clinicopathological correlation of all the visible pathologies in hysterectomy is necessary. This study confirms that benign diseases are more common than their malignant counterparts and the most common pathology identified is leiomyoma. The present study confirms a good correlation between clinical indications and histopathology especially in benign conditions.

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