e-ISSN: 0976-822X, p-ISSN:2961-6042

Available online on http://www.ijcpr.com/

International Journal of Current Pharmaceutical Review and Research 2024; 16(3); 376-379

Original Research Article

Assessment of Uterine Lesions in Perimenopausal and Postmenopausal Women: Histopathological Study

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Received: 02-02-2024 / Revised: 27-02-2024 / Accepted: 29-03-2024
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Conflict of interest: Nil

Abstract

Aim: The aim of the present study was to assess the histopathological spectrum of uterine lesions in perimenopausal and postmenopausal women.

Methods: The present study was conducted for a period of six months in the Department of obstetrics and Gynaecology , NMCH, Patna, Bihar, India. The study comprised of 200 cases which met the inclusion criteria were taken for this study.

Results: The maximum number of cases 56 (28%) were between the age group of 46-50 years. The most common site biopsy received was from cervix, 86 (43%). Postmenopausal bleeding was due to benign causes. Atrophic endometrium was the commonest benign.

Conclusion: PMB is a symptom which should not be taken lightly. Accurate diagnosis is usually made by histopathological examination. In our study, a wide spectrum of both neoplastic and non- neoplastic conditions of female genital tract has displayed as a cause of PMB with predominance of benign causes. Cervical cancer is still the most common cause of PMB, which point out that the effective implementation of screening program is utmost important. More awareness among people, especially elderly women should be made about the importance of pap screening.

Keywords: histopathological spectrum, uterine lesions, perimenopausal, postmenopausal women

Introduction

The endometrium is a constantly changing tissue that is sensitive and responsive to hormones, particularly during active reproductive years. Among patients of all ages who are coming to gynaecology outpatient departments, excessive and irregular bleeding remains a common presenting symptom. [1] Abnormal uterine bleeding is characterized by a deviation in frequency, duration, or amount of bleeding from what is typically observed during a normal menstrual cycle or after menopause. [2]

Two types of causes including functional causes like normal cyclical endometrium, abnormal physiological changes of endometrium (atrophic endometrium, weakly proliferative and disordered proliferative endometrium) and organic lesions like chronic endometritis, endometrial hyperplasia, endometrial polyp, carcinomas and pregnancy related complications. [2] In reproductive age group heavy menstrual bleeding accounts for 30% of total DUB cases [3], while postmenopausal bleeding accounts for 5% of all gynaecological visits. Histopathological examination of endometrial sample is used for the diagnosis of majority of lesions. Endometrial biopsy and curettage are chief sampling methods. [4]

UB is due to several factors deranging homeostasis like hormonal imbalances, infections, structural lesions, and malignancy. Based on these possible underlying etiologies, the International Federation of Gynaecology and Obstetrics (FIGO) in 2011 devised a classification named PALM-COEIN for the etiology of AUB. PALM accounts for structural features like polyps, adenomyosis, leiomyoma, and malignancy. COEIN addresses non-structural causes like coagulation defects, ovulatory dysfunction, endometrial causes, iatrogenic causes, and non-classified ones. [5] Endometrial biopsy is used as a diagnostic aid in AUB. It is done as a first-line test in women >45 years of age presenting with AUB. Endometrial biopsy is also done in patients <45 years of age with a history of unopposed estrogen exposure, failed medical management, and persistent AUB. [6] The prime idea is to rule out the

precursor lesions like hyperplasia and aggressive endometrial carcinoma. [5]

The aim of the present study was to assess the histopathological spectrum of uterine lesions in perimenopausal and postmenopausal women.

Materials and Methods

The present study was conducted for a period of six months in the Department of obstetrics and Gynaecology, NMCH, Patna, Bihar, India. The study comprised of 200 cases which met the inclusion criteria were taken for this study. Material for study was collected from endometrial, cervical, vaginal, vulval biopsies and hysterectomy specimens which were sent for histopathological examination to Department of Pathology from clinically diagnosed cases of postmenopausal bleeding. The History noted were spotting per vagina, brownish discharge, scanty flow and moderate to profuse bleeding. Premature menopause whether surgical or natural, with age <40yrs and patient on hormonal replacement therapy/on anticoagulant/having bleeding disorders were excluded from the study. After the collection of detailed data, the specimens were examined grossly. Specimens were fixed in 10% buffered formalin. Sections were processed and stained with H & E. Slides were examined under microscope and observations were done. The results were compiled, analysed using proportion and compared with other studies.

Results

Table 1: Distribution of study subjects according to age groups

AGE (years)	No of study subjects	Percentage
41-45	24	12
46-50	56	28
51-55	42	21
56-60	16	8
61-65	28	14
66-70	18	9
>70	12	6
>80	2	1
Total	200	100

The maximum number of cases 56 (28%) were between the age group of 46-50 years.

Table 2: Type of specimens received

Type of specimen	Numbers	Percentage
Biopsy vulva and vagina	6	3
Biopsy cervix	86	43
Biopsy cervix and endometrium	18	9
Endometrial curettage	62	31
Hysterectomy	10	5
Hysterectomy with adnexa	16	8
Hysterectomy with adnexa, omentum and lymph nodes	2	1
Total	100	100

The most common site biopsy received was from cervix, 86 (43%)

Table 3: Distribution and percentage of various lesions

Histopathology diagnosis	Number
Indequate	18
Cervicitis	8
Cervical polyp	8
Atrophic endometrium	30
proliferative endometrium	20
Endometrial hyperplasia without atypia	16
Endometrial hyperplasia with atypia	4
Endometrial polyp	6
Endometritis	2
Adenomyosis	6

Leiomyoma	10
Prolapse	2
Carcinoma cervix(total)	90
CIN	16
SCC	70
Undifferentiated	4
Malignant Uterus (Total)	24
Adenocarcinoma	14
Adenosquamous carcinoma	4
Papillary Serous Carcinoma	4
MMMT	2
Carcinoma Vulva (SCC)	6
Carcinoma Vagina (SCC and Adenocarcinoma)	4

Atrophic endometrium was the commonest benign. Most of the malignant tumors were from the cervix

Discussion

The endometrium is a constantly changing tissue that is sensitive and responsive to hormones, particularly during active reproductive years. Among patients of all ages who are coming to gynaecology outpatient departments, excessive and irregular bleeding remains a common presenting symptom. [7] Abnormal uterine bleeding is characterized by a deviation in frequency, duration, or amount of bleeding from what is typically observed during a normal menstrual cycle or after menopause. [8]

The investigations and assessment is moving away from operation theatre, ward environment into outpatient department. However the primary assessment in all cases of PMB should be trans vaginal ultrasound scanning(TVS) as the thickening of endometrium may indicate significant pathology. [9] The present trend in investigating only lesions with PMB when endometrial thickness is >4mm as measured by ultrasound. [10] However the authors have recommended systematic collection of biopsies from symptomatic patients [11] because there have been reports of cancer in patients presenting with ultrasound measured endometrial thickness <5mm. [12] The maximum number of cases 56 (28%) were between the age group of 46-50 years while the study done by Way sf et al, Sousa R et al, Bharani B et al and Sheikh M et al was 38-94, 43-82,52-65, 42-84 yrs respectively. [13-16] The most common site biopsy received was from cervix, 86 (43%). Postmenopausal bleeding was due to benign causes. Atrophic endometrium was the commonest benign.

Choo YC et al [17] found out that stimulation of postmenopausal endometrium can occur because of conversion of adrenal androsteinedione by peripheral fat to estrogen which leads to proliferative endometrium and also fluctuation of low level of estrogen results in bleeding from proliferative endometrium. Menorrhagia is the commonest presentation of AUB found in studies done by Sharma et al., Sajitha et al. and Mukhopadhyay et al. [18-20] In endometrial polyp bleeding can be as a result of injury to thin walled vein below surface epithelium or thrombosis of the vessels. The bleeding in leiomyoma can occur due to congestion or atrophy& thinning of overlying endometrium and myometrium results in ulceration and bleeding. [21]

Conclusion

PMB is a symptom which should not be taken lightly. Accurate diagnosis is usually made by histopathological examination. In our study, a wide spectrum of both neoplastic and non- neoplastic conditions of female genital tract has displayed as a cause of PMB with predominance of benign causes. Cervical cancer is still the most common cause of PMB, which point out that the effective implementation of screening program is utmost important. More awareness among people, especially elderly women should be made about the importance of pap screening. PMB indicates malignancy until proved otherwise and it demands thorough evaluation of patients with histopathological confirmation. An accurate diagnosis is immensely important as it will be helpful for the management of patient by implementing a proper treatment plan.

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