ORIGINAL RESEARCH PAPER
Volume-8 | Issue-11 | November - 2019 | PRINT ISSN No. 2277 - 8179 | DOI : 10.36106/ijsr
INTERNATIONAL JOURNAL OF SCIENTIFIC RESEARCH

A STUDY OF CLINICO-PATHOLOGICAL CORRELATION OF ENDOMETRIAL BIOPSIES IN PERIMENOPAUSAL WOMEN

Pathology

Dr. Sanjay Surase Associate Professor Department Of Pathology, Grant Medical college and Sir JJ group of Hospital, Byculla Mumbai - 08

Dr. Snehal Chavhan* Assistant Professor Department Of Pathology, Grant Medical college and Sir JJ group of Hospital, Byculla Mumbai – 08 *Corresponding Author

Dr. Kalpana Deshpande Associate Professor Department Of Pathology, Grant Medical college and Sir JJ group of Hospital, Byculla Mumbai – 08

Dr. Mayur Sonawane Resident Department Of Pathology, Grant Medical college and Sir JJ group of Hospital, Byculla Mumbai - 08

ABSTRACT

Background: Abnormal uterine bleeding is a major gynaecological problem accounting for 33% of Gynaec outpatients. The aim of this study was to evaluate the various histopathological patterns in the endometrial biopsy of patients presenting with abnormal uterinebleeding and to determine the specific pathology in the different age groups.
Methods: This was a prospective study done on120 patients with abnormal uterine bleeding were included in the study. Histopathological examination of the endometrial biopsy was done and the various histopathological patterns identified and classified.
Results: The age of patients ranged from 40-45 years.The most frequent findings were proliferative endometrium in 38.3 % and also disordered proliferative (15%), secretory endometrium(20.8%), and endometrial hyperplasia (13.3%) are different lesion.
Conclusions: Endometrial curettings and biopsy is an important diagnostic procedure for assessing all cases of abnormal uterine bleeding and to plan for successful management.

KEYWORDS

Endometrial Hyperplasia, secretory, Menorrhagia

INTRODUCTION

The endometrium is uniquely endowed throughout the female reproductive lifespan with complex regular cycle of periodic proliferation, differentiation, breakdown and regeneration [(1)]. Abnormal Uterine Bleeding is defined as changes in frequency of menstruation, duration of flow or amount of blood loss.[(2)]It is a major gynaecological problem accounting for 33% of out patient referrals, including 69% of referrals in perimenopausal and postmenopausal age group.[(3)]Abnormal perimenopausal or postmenopausal bleeding is associated with endometrial cancer in approximately 10% of cases. Atypical endometrial hyperplasia is felt to be a precursor of endometrial cancer and may progress over time to endometrial cancer in 5-25% of patients.[(4)] The sensitivity of endometrial biopsy for the detection of endometrial abnormalities has been reported to be as high as 96%.[(5)]Although endometrial biopsy has high sensitivity for endometrial carcinoma, its sensitivity for detecting atypical endometrial hyperplasia may be as low as 81%.[(6,7)]The aim of this study was to evaluate the various histopathological patterns in the endometrial biopsy of patients presenting with abnormal uterine bleeding and to determine the specific pathology in the different age groups.

AIMS AND OBJECTIVES

To study the different endometrial patterns in perimenopausal women with abnormal uterine bleeding and its clinic pathological correlation

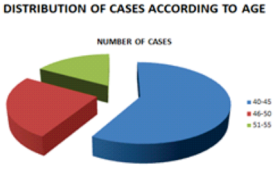
MATERIALS AND METHODS

This is a prospective study of 120endometrial biopsies received at department of pathology at tertiary care hospital over a period of 1.5 year. On receiving the specimen as per protocol they were fixed in 10% formalin. Gross features were recorded and biopsies were totally submitted and processed and paraffin blocks made, sections were then stained with Hematoxylin and Eosin stains (H & E Staining). After thorough microscopic examination a histopathological diagnosis was given.

RESULTS AND OBSERVATION :

TABLE I: DISTRIBUTION OF CASES ACCORDING TO AGE

AGE IN YEARS	NO. OF CASES	PERCENTAGE
40-45	70	58.34 %
46-50	30	25.00 %
51-55	20	16.66 %
TOTAL	120	100 %



Maximum number of cases were in age group of 40-45 years (70 cases or 58.34%) followed by 46-50 years(30 cases or 25%) and 51-55 years (20 cases or 16.66%).

TABLE II: DISTRIBUTION OF CASES ACCORDING TO HISTOPATHOLOGY DIAGNOSIS

HISTOPATH DIAGNOSIS	NO. OF CASES	PERCENTAGE
PROLIFERATIVE	46	38.3 %
SECRETORY	25	20.8 %
DISORDERED PROLIFERATIVE ENDOMETRIUM	18	15 %
POLYP	6	5 %
ENDOMETRITIS	3	2.5 %
ADENOCARCINOMA	6	5 %
SIMPLE ENDOMETRIAL HYPERPLASIA WITHOUT ATYPIA	15	12.5 %
COMPLEX HYPERPLASIA WITH ATYPIA	1	0.8 %
TOTAL	120	100 %

Histopathologically, maximum number of patients were diagnosed as proliferative type of endometrium(42 cases or 35%) followed by secretory type of endometrium(21 cases or 17%) and disordered proliferative endometrium (18 cases or 14%).

TABLE III: DISTRIBUTION OF HYPERPLASIA

TYPE OF HYPERPLASIA	NO. OF CASES	PERCENTAGE

SIMPLE ENDOMETRIAL HYPERPLASIA WITH ATYPIA	0	0 %
SIMPLE ENDOMETRIAL HYPERPLASIA WITHOUT ATYPIA	15	93.75 %
COMPLEX HYPERPLASIA WITH ATYPIA	1	6 %
TOTAL	16	100 %

In our study, simple endometrial hyperplasia without atypia is maximum i.e 93.75%(15 out of 16).

TABLE IV: DISTRIBUTION OF CASES ACCORDING TO PRESENTING COMPLAINTS

PRESENTING COMPLAINTS	NO. OF CASES	PERCENTAGE
IRREGULAR BLEEDING	53	44 %
HEAVY BLEEDING	25	21 %
IRREGULAR CYCLES	23	19 %
POSTMENOPAUSAL BLEEDING	15	13 %
WHITE DISCHARGE	4	3 %
TOTAL	120	100 %

Maximum patient presented with irregular bleeding i.e. 44% (53 out of 120) and very less presented with white discharge i.e. 3% (4 out of 120).

TABLE V: HISTOPATHOLOGICAL PATTERNS IN NEOPLASTIC LESIONS

PATTERN	TYPE	NO.	%
BENIGN LESIONS	ENDOMETRIAL POLYP	5	18.6%
	SIMPLE ENDOMETRIAL HYPERPLASIA WITHOUT ATYPIA	15	55.55%
PRE-MALIGNANT LESIONS	SIMPLE ENDOMETRIAL HYPERPLASIA WITH ATYPIA	0	0%
	COMPLEX ENDOMETRIAL HYPERPLASIA WITHOUT ATYPIA	0	0%
	COMPLEX ENDOMETRIAL HYPERPLASIA WITH ATYPIA	1	3.7%
MALIGNANT LESIONS	ADENOCARCINOMA	6	22.2%
TOTAL		**27**	**100%**

Maximum neoplastic lesions are Simple endometrial hyperplasia without atypia i.e.33.3% (9 out of 27), followed by simple endometrial hyperplasia and adenocarcinoma i.e. 22.2% (6 out of 27) and minimal lesions is complex endometrial hyperplasia with atypia i.e. 3.7% (1 out of 27).

DISCUSSION

Dysfunctional uterine bleeding is a diagnosis of exclusion in which no specific organic cause can be attributed to as the reason.[8] Abnormal uterine bleeding without structural pathology occurs in reproductive women of all ages but is more common in adolescent and perimenopausal women.[9]In present study, AUB was commonest in the age group 40-45 years (58.34%). A similar high incidence was reported by Muzaffar M et al, YusufNW et al, Doraiswami S et al and Damle P et al while Khan R et al found maximum incidence in the age group 40-39 years.[10,11,12,13,14] .We found proliferative endometrium to be the most common histopathological finding in 48 % followed by secretory endometrium in 12 %. Similar finding was found by Dangal G, Bhatta S et al and Khare A et al.[9,15,16]Khan S et al found proliferative endometrium in 46.6% of cases while Sheetal et al reported in 42% of cases.[17,18]Fakhar S et al reported a higher incidence of 54% and Bhosle A et al reported an incidence of 66.1% same as Jetley S et al.[19,20,21]Chary N et al found proliferative endometrium- the most common finding at 60% followed by secretory endometrium in 17 % of cases.[22]Secretory endometrium was the next common finding in present study withpatients (17 %). Similar finding of 16.1 % was reported by Bhosle et al while Khan S et al reported 38.4%, Muzaffar M et al 35.4 %, Sheetal et al 22%, Fakhar S et al 14% and Khan R et al 13.7%.[10,11,17,18,19,20]. Abdulla and Bondaji found secretory endometrium to bethe most common histopathological diagnosis (24.9%) followed by proliferative endometrium at 21.7%.[23]Present study found Glandular hyperplasia without atypia in 1.9% cases and with atypia in 0.2 % of cases. Khan S et al found a slightly higher incidence of glandular hyperplasia without atypia in 2.8 % of cases and with atypia in 1 % cases.[17]Bhatta et al found simple hyperplasia without atypia in 24.6% patients in the age group 40-49 years while Muzaffar M et al found endometrial hyperplasia (24.7 %) to be the most common lesion followed by chronic nonspecific endometritis (13%).[11, 15] Disordered proliferation was found in 14 % in our study. A similar incidence of 15.9 % was reported by Damle R P et al and Abdulla L S et al while Bhatta et al observed an incidence of 6.1 %.[14, 15, 24]Endometrial polyp was found in 5 % cases in present study. A similar incidence was found by Sheetal et al (5%) while a much higher incidence was reported by Mencoglia et al at 20 %.Khan S et al (0.6%), Muzaffar M et al (1.2%), Baral R et al (1.3%).[11,17,25]A higher incidence was reported by Bhatta S et al (2.46%), Jetley S et al (2.7%), Khan R et al (3.3 %).[3, 10, 15, 18, 21] Chronic endometritis in the present study was found in only 2.5 % of patients while it was seen with a higher incidence of 5.68% in a study by Damle R P et al, 6.4 % by Khare et al, 6.56% by Bhatta S et al, 9.1 % by Jetley S et al, 13% by Muzaffar M et al and 20.7% by MichailG et al.[11, 14, 15, 16, 21, 23]Endometrial cancer was observed in 5 % of cases in present study. A near about similar incidence of 3.3 % was reported by Jong P D (3.3%) , Moghal N et al and Valle R F et al while it is little higher in studies by Jyotsna et al (1.3%), Sheetal et al (2%), and Khan S et al (0.2 %).[17, 18, 26, 27, 28, 29].Abnormal uterine bleeding may be the symptom of endometrial cancer in 8- 50% of cases.[9]Management of abnormal uterine bleeding is not complete without tissue diagnosis, especially in perimenopausal and post-menopausal women.[25]

CONCLUSION

The histopathological study of endometrium in females with abnormal uterine bleeding above the age of 40 years plays an important role in diagnosing various histological patterns and aetiopathological factorsevaluation of which will help us to plan for successful management.It gives bright avenues not only to find out cases in which organic lesions like polyps, hyperplasia can be detected but also helps to search out early atypical hyperplasia and cancer of endometrium which has excellent prognosis if detected early.

REFERENCES

1. Tavassoli FA, Devilee P editors, Tumours of the uterine corpus. In: WHO classifications of tumours. Pathology and genetics of tumours of the breast and female genital organs. Lyon France: IARC press. 2003:221-32.
2. Munro MG. Abnormal uterine bleeding in the reproductive years: Pathogenesis and clinical investigations. J Am Assoc Gynecol laparos. 1999;6:393-416.
3. Mencoglia L, Perino A, Hamou J. Hysteroscopy in perimenopausal and post-menopausal women with abnormal uterine bleeding. J Reprod Med. 1987;32:577-82.
4. Brand A, Dubuc-Lissoir J, Ehlen TG, Plante M. Diagnosis of endometrial cancer in women with abnormal vaginal bleeding. J Soc Obstet Gynecol Can. 2000;22:102-4.
5. Stovall TG, Ling FW, Morgan PL. A prospective randomized comparison of the Pipelle endometrial sampling device with the Novak curette. Am J Obstet Gynecol. 1991;165(5,1):1287-90.
6. Clark TJ, Mann CH, Shah N, Khan KS, Song F, Gupta JK. Accuracy of outpatient endometrial biopsy in the diagnosis of endometrial cancer: A Systematic Quantitative review. BJOG. 2002;109:313-21.
7. Dijkhuizen FP, Mol BW, Brolman HA, Heintz AP. The accuracy of endometrial sampling in the diagnosis of patients with endometrial carcinoma andhyperplasia: a meta-analysis. Cancer. 2000;8:1765- 72
8. Rosai J. Female reproductive system-uterus-corpus. In: Rosai and Ackerman's surgical pathology. 9th edition; Mosby: an imprint of Elsevier, Missouri, 2005;1579-615.
9. Dangal G. A study of endometrium of patients with abnormal uterine bleeding at Chitwan valley. Kathmandu University. Med J. 2003;1:110-2.
10. Khan R, Sherwani R, Rana S, Hakim S, Jairajpuri ZS. Clinico-Pathological Patterns in Women with Dysfunctional Uterine Bleeding. Iran J Pathol. 2016;11(1):20-6.
11. Muzaffar M, Akhtar KAK, Yasmin S, Rahman M, Iqbal W, Khan MA. Menstrual irregularities with excessive blood loss: A Clinico-Pathological Correlation. J Pak Med Assoc. 2005;55:486-9.
12. Yusuf NW, Nadeem R, Yusuf AW, Rahman R. Dysfunctional Uterine Bleeding. A retrospective clinicopathological study over 2 years. Pak J Obstet Gynecol.1996;9:27-30.
13. Doraiswami S, Johnson T, Rao S, Rajkumar A, Vijayaraghavan J, Panicker V. Study of endometrial pathology in Abnormal Uterine bleeding. J Obstet Gynecol India. 2011;61(4):426-30.
14. Damle RP, Dravid NV, Suryawanshi KH, Gadre AS, Bagale P S, Ahire N. Clinicopathological spectrum of endometrial changes in peri-menopausal and post-menopausal Abnormal Utrine Bleeding: a 2 year study. J Clin Diagn Res. 2013;7(12):2774-6.
15. Bhatta S, Sinha AK. Histopathological study ofendometrium in abnormal uterine bleeding. J Pathol Nepal. 2012;2:297-300.
16. Khare A, Bansal R, Sharma S, Elhence P, Makkar N, Tyagi Y. Morphological spectrum of Endometrium in patients presenting with Dysfunctional Uterine Bleeding. People's Journal of Scientific Research. 2012;5(2)13-6.
17. Khan S, Hameed S, Umber A. Histopathological pattern of Endometrium on Diagnostic D and C in patients with Abnormal Uterine Bleeding. Annals. 2011;17(2):166-70.
18. Sheetal GP, Bhute SB, Inamdar SA, Acharya NS, Shrivastava DS. Role of diagnostic hysteroscopy in abnormal uterine bleeding and its histopathological correlation. J Endosc Surg. 2009;1(2):98-104.
19. Fakhar S, Saeed G, Khan AH, Alam AY. Validity of pipelle endometrial sampling in patients with abnormal uterine bleeding. Ann Saudi Med. 2008;28(3):188-91.
20. Bhosle A, Fonseca M. Evaluation and Histopathological correlation of Abnormal Uterine Bleeding in Perimenopausal women. Bombay Hospital Journal. 2010;52(1):69-72.

21. Jetley S, Rana S, Jairajpuri ZS. Morphological spectrum of endometrial pathology in middle-agedwomen with atypical uterine bleeding: A study of 219 cases. J Midlife Health. 2013;4(4):216-20.
22. Chary N, Fathima A, Rani J. Endometrial histopathological changes associated with Dysfunctional Uterine Bleeding. Asian Pac J Health Sci. 2016;3(2):106-9.
23. Michail G, Karahaliou A, Skiadopoulos S, Kalogeropoulou C, Terzis G, Boniatis I et al. Texture analysis of perimenopausal and post-menopausal endometrial tissue in gray scale transvaginal ultrasonography. Br J Radiol. 2007;80:609-16.
24. Abdulla LS, Bondagji NS. Histopathological pattern of Endometrial Sampling performed for Abnormal Uterine Bleeding. Bahrain Medical Bulletin. 2011;33(4):1-6.
25. Baral R, Pudasaini S. Histopathological pattern of endometrial samples in abnormal uterine bleeding. J Pathol Nepal. 2011;1:13-6.
26. Moghal N. Diagnostic value of endometrial curettage in abnormal uterine bleeding- a histopathological study. J Pak Med Assoc. 1997;47:295-9.
27. Valle RF. Hysteroscopic evaluation of patients with abnormal uterine bleeding. Surg Gynecol Obst. 1981;153:521-6.
28. Jyotsana, Manhas K, Sharma S. Role of hysteroscopy and laparoscopy in evaluation of abnormal uterine bleeding. JK Sci. 2004;6:1.
29. Jong PD, Doel F, Falconer A. Outpatient diagnostic hysteroscopy. Br J Obstet Gynecol. 1990;97:2.