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The histopathological pattern of AUB in Perimenopause

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Abstract

Background: The histopathological pattern of AUB in perimenopause.

Methods: Prospective interventional study conducted at Kamla Nehru Hospital for State Mother and Child, IGMC Shimla.

Results: Secretory phase was the most common histopathological finding accounting for 37.55% with confidence interval of 31.26-44.17% followed by proliferative phase accounting for 33.18% with confidence interval of 27.12-39.69% , disordered proliferative accounting for 17.46% then simple cystic hyperplasia 3.93% and least commonly seen were endometritis 2.62%, complex hyperplasia with atypia 1.74%,atrophic endometritis 1.74%, two cases of carcinoma (ca) endometrium (0.87%) and one case each of irregular maturation and adenomatous polyp. No cases of complex hyperplasia without atypia and cystic adenomatous hyperplasia were found.

Conclusion: Histopathological study of the endometrium reveals a wide variety of abnormalities, early evaluation of which will help us to plan for successful management by implementation of alternative procedures to avoid radical surgeries so that women receives maximum benefits with least morbidity.

Keywords: AUB, HIstopathological pattern, Bleeding

Introduction

AUB accounts for more than 70% of all gynaecological consultations in perimenopausal and postmenopausal years. It is estimated that 9-30% women suffer from menorrhagia.[1]

The prevalence increases with age, peaking just prior to menopause. Thus making perimenopausal women vulnerable.[2]

World Health Organisation (WHO) defines perimenopause as the time period 2-8 years preceding menopause and 1 year after the final menopause.[3]

Variations from the normal cyclical pattern in the perimenopausal age may be due to physiological hormonal changes or may be due to neoplastic changes. AUB may be the symptom of endometrial carcinoma in 8-50% of cases. Endometrial curettage plays an important role in excluding these organic causes of AUB like endometrial hyperplasia or endometrial carcinoma by allowing extensive sampling of uterine cavity.[4]

Histopathological examination of endometrial samples is the gold standard for diagnosis of endometrial pathology. The importance of endometrial biopsy or curettage is to obtain material for histopathological evaluation to aid in diagnosis and further management especially in perimenopausal females who are at risk of developing malignancy.[5]

Material and Methods

Study Design: Prospective interventional study.

Study Settings: After approval from Research and Ethics Committee this study was conducted at Kamla Nehru Hospital for State Mother and Child, IGMC Shimla.

Study Period: 1ST July 2018- 30th June 2019.

Sample Size: All patients coming in the study period fulfilling the inclusion criteria

Inclusion Criteria

- Perimenopausal women in age group 45 years and above with AUB.

Exclusion Criteria

- Patient refusal
- Other age groups with abnormal uterine bleeding
- Isolated cervical or vaginal pathology
- Bleeding diathesis and tendencies
- Pregnancy and its complications
- Patients receiving cyclical hormones
- Endocrine diseases like hypothyroidism, diabetes
- Leiomyoma
- Adenomyosis

Detailed history of the women with abnormal uterine bleeding coming to the opd was taken including the age, parity and menstrual patterns (amount, duration, and pattern of bleeding). General and systemic examination of these patients was done. The patients were subjected to routine investigations as per departmental protocol.

1. Hemoglobin
2. Urinary pregnancy test
3. Fasting blood sugar and post prandial blood sugar
4. Urine routine & microscopic examination
5. Thyroid profile
6. Coagulation profile
7. Ultrasonography of pelvic organs

Every patient was posted for endometrial curettage and the endometrial curetting's were taken as day care procedure.

Patients were asked to come next morning nil per orally. After taking the informed consent patients were asked to empty the bladder prior to procedure. The patients were given intravenous sedation. Patients were placed in lithotomy position. Local antiseptic cleaning and draping was done.

Then bimanual examination was performed. Posterior vaginal speculum was introduced. The anterior lip of cervix was grapsed with an allis tissue forceps. A uterine sound was introduced to confirm the position and to note the length of the uterocervical canal. Cervical canal was dilated with graduated dilators. After the desired dilatation, the uterine cavity was curetted by a uterine curette directing starting from fundus down to internal os. Vulsellum and speculum was removed. Endometrial samples were collected in 10% formalin and sent for histopathological analysis to the Deptt. of Pathology, IGMC, Shimla.

Endometrial patterns reported were recorded and studied.

Statistical Analysis: The frequency, proportion and percentages were calculated.

Results were summarized in tables, graphs and figures in terms of proportions and percentages. Statistical analysis was done using SPSS version 20.

Observations

Table 1: Analysis of histopathological findings

Histopathological Exam	No of Cases (N=229)	Percentage	Conf Interval
Proliferative	76	33.18%	27.12-39.69%
Secretory	86	37.55%	31.26-44.17%
Disordered Proliferative	40	17.46%	12.78-23.02%
Simple Cystic Hyperplasia	9	3.93%	1.81-7.33%
Complex Hyperplasia Without Atypia	0	0	0
Complex Hyperplasia With Atypia	4	1.74%	0.48-4.41%
Endometritis	6	2.62%	0.97-5.62%
Ca. Endometrium	2	0.87%	0.11-3.12%
Irregular Maturation	1	0.43%	0.01-2.41%
Cystic Adenomatous Hyperplasia	0	0	0
Atrophic Endometrium	4	1.74%	0.48-4.41%
Adenomatous Polp	1	0.43%	0.01-2.41%

Secretory phase was the most common histopathological finding accounting for 37.55% with confidence interval of 31.26-44.17% followed by proliferative phase accounting for 33.18% with confidence interval of 27.12-39.69% , disordered proliferative accounting for 17.46% then simple cystic hyperplasia 3.93% and least commonly seen were endometritis 2.62%, complex hyperplasia with atypia 1.74%,atrophic endometritis 1.74%, two cases of carcinoma (ca) endometrium (0.87%) and one case each of irregular maturation and adenomatous polyp. No cases of complex hyperplasia without atypia and cystic adenomatous hyperplasia were found.

Discussion

Table 2: Histopathological pattern in AUB

Histopathological exam	Abdullahis et al (2011)	Jain m et al (2014)	Usha gd et al (2014)	Kaur et al (2017)	Sreedar et al (2017)	Sreelakshmi u et al (2018)	Present study	
							No of cases (229)	Percentage
Proliferative	15.40%	26.49%	44.7%	19.7%	29.3%	30.3%	76	33.18%
Secretory	16.60%	19.77%	23.5%	30.9%%	14%	27.4%	86	37.55%

Disordered proliferative				15.4%		6.6%	40	17.46%
Simple cystic hyperplasia	10.50%	12.31%		1.4%	12.76%	18.5%	9	3.93%
Complex hyperplasia without atypia	1.80%	4.10%			8%	1.4%	0	O
Complex hyperplasia with atypia	0.54%	4.10%		2.8%	4.7%		4	1.74%
Endometritis	7.20%	2.98%	9.4%	1.4%%	4.7%	0.7%	6	2.62%
Ca. Endometrium	1.50%	0.74%		1.4%	6%	0.7%	2	0.87%
Irregular maturation	11.60%	13.05%					1	0.43%
Cystic adenomatous hyperplasia		1.86%	7.05%		2%	3.7%	0	0
Atrophic endometrium			5.8%	1.4%	4%	3.7%	4	1.74%
Adenomatous polyp				1.4%	9.3%	0.7%	1	0.43%

Histopathological evaluation of endometrial curetting yielded various spectrum ranging from physiological to pathological lesions of endometrium.The identification of endometrial hyperplasia is very important. The bleeding in the proliferative phase may be due to anovulatory cycles and the bleeding in secretory phase may be due to ovulatory dysfunctional uterine bleeding which is characterized by various menstrual patterns.

Thus this result supports the importance of diagnostic endometrial currettings in perimenopausal patients as it helps in identifying the organic causes of AUB in this age group and to introduce a rational bases for their management.

Conclusion

Histopathological study of the endometrium reveals a wide variety of abnormalities, early evaluation of which will help us to plan for successful management by implementation of alternative procedures to avoid radical surgeries so that women receives maximum benefits with least morbidity.

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