

HISTOPATHOLOGICAL PATTERN OF ENDOMETRIUM IN PATIENTS WITH ABNORMAL UTERINE BLEEDING

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ABSTRACT

Background: Assessment of histopathological pattern of endometrium among women with abnormal uterine bleeding is important for management of this condition. **Objective:** This study was conducted to find out the histopathological pattern of the endometrium in patients with abnormal uterine bleeding. **Patients & Methods:** This cross sectional study was conducted in the department of Obstetrics & Gynaecology Unit-II, Sheikh Zayed Medical College/Hospital, Rahim Yar Khan from 1st January, 2011 to 31st December, 2013. Patients with history of abnormal bleeding were assessed and admitted in Gynae Unit-II, after detailed evaluation by history, examination and pelvic ultrasound, their endometrial sampling was taken and sample was sent for histopathological examination in pathology department of Sheikh Zayed Medical College/Hospital, Rahim Yar Khan. Inclusion Criteria: Patients with irregular P/V bleeding at any age, menorrhagia, polymenorrhagia, endometrial polyp, post-menopausal bleeding and post-menopausal discharge. Exclusion Criteria: Patients with pregnancy complications (threatened, incomplete miscarriage, molar pregnancy and ectopic pregnancy) acute pelvic infection and IUCD insertion. Data was entered and analyzed by using SPSS version 16. **Results:** A total of two hundred and thirty six endometrial sampling were performed over a period of three years. In three years majority 166 (70.30%) of patients presented in age of 35-50 years, 47 (19.9%) were between 30-35 years and 23 (9.8%) were more than 50 years of age. The commonest histopathological finding in our study was chronic endometritis (41.5%), followed by simple hyperplasia (19.9%), proliferative endometrium (9.3%), secretory endometrium (7.6%), complex hyperplasia without atypia (5.9%) and complex hyperplasia with atypia (5.1%). Other findings constitute disordered proliferation (3.4%), adenocarcinoma (1.7%), atrophic and inactive endometrium (1.3%), endometrial polyp (0.4%). **Conclusion:** Histopathological pattern of endometrium in patients with abnormal bleeding is quite variable. Main reason for performing endometrial biopsy in women with abnormal uterine bleeding is to confirm the benign nature of the problem by ruling out endometrial carcinoma.

Keywords: Histopathological pattern, Endometrial sampling, Abnormal uterine bleeding

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INTRODUCTION

Menstrual abnormality is a common reason why women present in gynaecological clinics and heavy menstrual bleeding is one of the most common cause of iron deficiency anaemia in women.¹ Abnormal uterine bleeding (AUB) is commonly presented at adolescent and perimenopausal age.² It is a common problem with all age groups having a long list of causes in different age groups.³ It interferes significantly with the quality of life in an otherwise healthy women.⁴ AUB can be caused by either systemic disease like, endocrine disorders or drugs, or it may be caused by pregnancy complications, anovulation, fibroids, polyps, adenomyosis or neoplasia.⁵ Endometrial sampling for histopathology is important in the assessment of

abnormal uterine bleeding in women over 35 years to rule out endometrial cancer or pre-malignant lesion and in women between 18-35 years of age, who have risk factors for endometrial cancer, so that medical treatment or conservative surgery can be offered and un-necessary radical surgery can be avoided.⁶

The objective of this study was to determine the histopathological pattern of endometrium in abnormal uterine bleeding in all age groups of patients presenting at our tertiary care hospital.

PATIENTS AND METHODS

This cross sectional study was conducted from 1st January, 2011 to 31st December, 2013. All the patients presenting in OPD of Sheikh Zayed Hospital with history of abnormal uterine bleeding were assessed and admitted in Gynae Unit-II, after detailed evaluation by history, examination and pelvic ultrasound. Their endometrial sampling was done and samples were sent for histopathological examination in pathology department of Sheikh Zayed Medical College/Hospital, Rahim Yar Khan. Inclusion Criteria: Patients with irregular P/V bleeding at any age, menorrhagia, polymenorrhagia, endometrial polyp, post-menopausal bleeding and

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post-menopausal discharge. Exclusion Criteria: Patients with pregnancy complications (threatened, incomplete miscarriage, molar pregnancy and ectopic pregnancy) acute pelvic infection and IUCD insertion. Data was entered and analyzed by SPSS version 16.

RESULTS

A total of two hundred and thirty six endometrial sampling was performed over a period of three (03) years.

Table I: Age distribution of patients

Age (years)	Frequency (%)
20-35	47 (19.9)
35-50	166 (70.3)
>50	23 (9.8)
Total	236 (100%)

Table II: Presenting Complaint of the patients

Complaint	Frequency (%)
Irregular vaginal bleeding	109 (46.2)
Menorrhagia	62 (26.3)
Continuous vaginal bleeding	38 (16.1)
Post-menopausal bleeding	21 (8.9)
Vaginal discharge	5 (2.1)
Intermenstrual bleeding	01 (0.4)
Total	236 (100%)

In three years, majority 166 (70.30%) of patients presented in age group of 35-50 years, 47 (19.9%) were between 30-35 years and 21 (9.89%) were in more than 50 years of age. The commonest presenting complaint of the patients in our study was irregular vaginal bleeding (46%) followed by menorrhagia (26%) continuous vaginal bleeding (16%), post menopausal bleeding (9%), vaginal discharge (2%) and instrumental bleeding (0.4%). All of the patients underwent conventional diagnostic D & C. Out of these 97.5% of the cases had adequate sample while 5 patient (2.1%) had no histopathological result due to inadequate sample. The commonest histopathological finding in our study was chronic endometritis (41.5%), followed by simple hyperplasia (19.9%), proliferative endometrium (9.5%), secretory endometrium (7.6%), complex hyperplasia without atypia (5.9%) and complex hyperplasia with atypia (5.5%). Other findings constituted disordered proliferation (3.8%), adenocarcinoma (1.7%), atrophic and inactive endometrium (1.3%), endometrial polyp (0.4%).

DISCUSSION

Abnormal uterine bleeding is defined as the presence of blood at vaginal introitus exclusive of normal menstruation and could present as menorrhagia, metrorrhagia, polymenorrhagia, peri and postmenopausal bleeding.⁴ The bleeding could be the sign of an underlying localized condition including benign tumors, malignancy and infection.⁴ Histopathological evaluation of curettage specimen is necessary in identifying the cause of AUB.⁷

Abnormal and excessive endometrial bleeding occurs in reproductive women of all ages but is more common in adolescent and perimenopausal women. Many studies revealed that occurrence of menstrual disorder is increased with age.^{8,9}

The largest age group of the patient in our study was 35-50 years (70.3%) which is comparable with study conducted by Zeeba S, showing incidence in this age group of about 69.1%.⁷

Chronic endometritis is a condition which is characterized by irregular fibrotic stroma and infiltrated by lymphocytes and plasma cells. It usually follows pregnancy or abortion, may also be a result of intrauterine contraceptive device.¹⁰ Our study showed chronic endometritis as the commonest cause of AUB (41.5%) which is different from most of the other studies such as, Riaz S et al showed 13%, while Gulia et al showed only 1.38% of cases with chronic endometritis.^{10,11} Probable reason behind this gross difference is high incidence of pelvic inflammatory disease and ascending infection after vaginal delivery conducted at homes under septic circumstances. Other infections like chlamydial and viral infections may also be responsible for high cases of endometritis.

After chronic endometritis, most of endometrial curettings revealed normal histology like proliferative endometrium (9.5%) & secretory endometrium (7.6%). These results are also different from the literature published earlier as Zeeba S et al showed 28.9%, cases with secretory phases and 24.9% with proliferative one.⁷ Similar results are mentioned by Riaz S et al, who showed 26% with secretory endometrium and 33% in proliferative phases.¹⁰

Endometrial hyperplasia is a common diagnosis especially in perimenopausal women often causing symptoms of irregular or prolonged bleeding due to anovulatory cycle in majority of cases. The heavy bleeding is secondary to sustained level of estrogens.¹² Our study revealed simple hyperplasia in

19.9% of cases which is comparable to Gulia SP et al¹¹ showing 16.7%, where as Zeeba S et al⁷ showed lower incidence of hyperplasia (5.7%). The other literature reports showed quite variable incidence of endometrial hyperplasia (10.9%, 21%, 28.3%).^{12,13,14}

Cystic hyperplasia without atypia was observed in 5.9% of cases while with atypia was found in 5.9% of cases which is almost-comparable to Shaheen S et al, who mentioned cystic hyperplasia without atypia in 4.9% of cases.¹⁵ These figures are also comparable to study conducted by Umber A et al, who mentioned cystic hyperplasia without atypia in 6.4% and with atypia in 2.4% of the cases.²

In our study, four cases were discovered with endometrial carcinoma (1.7%) which shows the low frequency of malignancy in our country. This figure is almost comparable to other studies which showed endometrial CA 1%, 0.44%, 1.15%, 1.86%.^{10,11,16,17}

CONCLUSION

Histopathological pattern of endometrium in patients with abnormal bleeding is quite variable. Our study showed that chronic endometritis, simple hyperplasia, complex hyperplasia and proliferative endometrium, are commonest histopathological findings, whereas, few of the cases have disordered proliferation and adeno carcinoma as well.

Main reason for performing endometrial biopsy in women with abnormal uterine bleeding is to confirm the benign nature of the problem by ruling out endometrial carcinoma, so that medical treatment or conservative surgery can be offered and unnecessary radical surgery can be avoided.

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