Original Research Article

Histopathological analysis of Abnormal uterine bleeding

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Abstract

Introduction: Abnormal Uterine Bleeding is one of the commonest presentations of patients in gynecology OPD (Outdoor patient department). Abnormal uterine bleeding is a common sign of a number of different uterine disorders ranging from dysfunctional (non-organic) abnormalities or complications of pregnancy to organic lesions such as polyps, hyperplasia, or carcinoma.

Materials and methods: Present study included 200 patients who attended OPD of Gynecology Department, with complaints of abnormal uterine bleeding. All the biopsy specimens were sent to Pathology Department. We had made an appropriate histopathological diagnosis for each case. The data was collected and analyzed statistically.

Results: Out of 200 cases studied, 21% were found out to be secretory endometrium, 30% proliferative endometrium, 9% simple hyperplasia without atypia, 5% complex hyperplasia without atypia, 8% endometrial hyperplasia with atypia, 3% endometrial polyp, 8% chronic nonspecific endometritis, 2% tuberculous endometritis, 1% Arias-stella reaction, 10% products of conception, 1% complete and partial hydatidiform mole, 1% endometrial carcinoma and 1% squamous cell carcinoma of cervix.

Conclusion: Endometrial biopsy is a safe, reliable and less time consuming outpatient procedure which can be used as an initial diagnostic tool in the patients with abnormal uterine bleeding.

Key words

Abnormal uterine bleeding, Endometrial biopsy, D&C.

Introduction

Abnormal Uterine Bleeding is one of the commonest presentations of patients in Gynecology OPD (Outdoor patient department). Abnormal uterine bleeding is a common sign of various uterine disorders ranging from dysfunctional (non-organic) abnormalities and complications of pregnancy to organic lesions such as polyps, hyperplasia, or carcinoma [1-8]. The prevalence of the various abnormalities that lead to abnormal bleeding is difficult to determine precisely, varying with the patient population and the terms used by investigators [9-11]. It is essential to confirm the cause of abnormal uterine bleeding in order to plan appropriate treatment modality. Endometrial biopsy allows the Pathologist to examine the cells obtained directly from the lesion itself, without hospitalization and elaborate pre-operative preparations. Present study was carried out to find out the causes for abnormal uterine bleeding in women.

Materials and methods

Present study included 200 patients who attended OPD of gynecology department at Saraswati Institute of Medical Science (SIMS), Hapur with complaints of abnormal uterine bleeding. Endometrial biopsy or curettage; done by gynecologist as part of diagnosis and management. Samples were sent to Department of Pathology for histopathological evaluation. All the biopsy specimens were fixed in 10% formalin for 24 hours and the gross morphological features were noted. Tissue after appropriate fixation was processed and embedded in paraffin block. After that 3-5 micron tissue sections were cut, and they were stained with H & E stain. The sections were evaluated on microscopy and an appropriate histopathological diagnosis was made.

Results and Discussion

The present study consists of endometrial biopsies and curettings of the patients with complaint of abnormal uterine bleeding. On histopathological examination, the different endometrial patterns presenting as abnormal uterine bleeding in women were studied. All endometrial biopsy and curreting specimens collected by OBGY Department received in the Department of the Pathology, constituted the study material. Microscopic study of the endometrial specimen is imperative for proper diagnosis and management of benign as well as malignant lesions.

Amongst 200 cases of endometrial biopsies analyzed in present study, non-neoplastic cases were 98% and neoplastic cases were 02%. In present study, the patients of wide range in ages from 18 years to 62 years were observed. Maximum numbers (37.5%) of cases were seen in age group of 31-40 years. Minimum numbers 3 cases (1.5%) were seen in age group of more than >50 years (**Table – 1**).

Table - 2 represents the summary of the distribution of different endometrial pathology reported by pathologist in the present study. The incidence of secretory endometrium in the present study dealing with abnormal uterine bleeding was 21%. The study done by S. Shaheen, et al. [12] (2005) showed 33.91% which was comparable with our study.

In a study by Shazia R, et al. [13], incidence of secretory Endometrium was 26.00%. The study by Dangal G. [14] (2003) showed a lower incidence of secretory Endometrium (10.70%) than the present study which showed an incidence of (21%). The higher incidence of secretory endometrium in our study may be due to time of menstrual cycle when endometrial biopsy taken which was later half of menstrual period according to clinical management of the patient.

Proliferative endometrium was found in 30.00% of cases in this study which correlated with the observation of Dangal G. [14] showed 17.80%. In the study conducted by S. Shaheen, et al. showed 58.67% incidence and Shazia R., et al. [13] showed 33.00% incidence of proliferative which are higher than present study. It may be

because as part of clinical management patients had taken any external hormones or it can be a different time of menstrual cycle while taking endometrial biopsy.

Endometrial hyperplasia was found as a cause in 8% cases of abnormal uterine bleeding in present study which is comparable with the study conducted by Steven M. Greenwood, et al. [15].

Table – 1: Age specific distribution of endometrial lesion in abnormal uterine bleeding.

Endometrial pathology	**≤ 30 years**	**31-40 years**	**41-50 years**	**>50 years**
Secretory endometrium	8	18	16	0
Proliferative endometrium	18	32	10	0
Simple hyperplasia without atypia	8	6	4	0
Complex hyperplasia without atypia	4	2	4	0
Endometrial hyperplasia with atypia	8	2	6	0
Endometrial polyp	2	2	2	0
Chronic non-specific endometritis	5	4	5	2
Tuberculous endometritis	3	1	0	0
Arias-stella reaction	1	1	0	0
Products of conception	4	6	0	0
Complete and partial H. mole	2	0	0	0
Endometrial carcinoma	0	1	1	0
Squamous cell carcinoma of cervix	0	0	1	1
Total	**73**	**75**	**49**	**3**

Table – 2: Distribution of endometrial pathology in present study.

Endometrial pathology	**No. cases**	**%**
Proliferative endometrium	60	30
Secretory endometrium	42	21
Simple hyperplasia without atypia	18	9
Complex hyperplasia without atypia	10	5
Endometrial hyperplasia with atypia	16	8
Endometrial polyp	6	3
Chronic non-specific endometritis	16	8
Tuberculous endometritis	4	2
Arias-stella reaction	2	1
Products of conception	20	10
Complete hydatidiform mole	2	1
Endometrial carcinoma	2	1
Squamous cell carcinoma of cervix	2	1
Total	**200**	**100**

In observation of study by Steven M. Greenwood, et al. [15], there were 2% cases of endometrial hyperplasia with atypia which is lower as compared with 8% cases of endometrial hyperplasia with atypia observed in the present study.

The incidence of endometrial polyp in present study was 3%, which is lower than that observed in the study by E. Dreisler, et al. [17] who observed 7.80% incidence of endometrial polyp and they noted that polyps were rare (0.93%) in the women below the age of 30 years and abnormal uterine bleeding was less frequent

among women with polyps in comparison with other women.

Chronic non-specific endometritis was a cause of abnormal uterine bleeding in 8.00% cases. In the study of Shazia R., et al. [13], 13% of cases observed with chronic non-specific endometritis which is higher than present study. Pelvic inflammatory diseases and sexually transmitted diseases may be responsible for higher incidence of endometritis in our study.

In present study there was a single case of tuberculous endometritis which is comparable with the study of Shazia R., et al. [13] where a single case of granulomatous endometritis was noted.

10% cases were observed with pregnancy related changes in women with abnormal uterine bleeding, which is higher than any other study. In the 1 year retrospective study of by Steven M. Greenwood it was 1.0% and in the 3 years retrospective study by Baral R., et al. [16] it was 2.66% only.

Statistical difference observed in comparison of pregnancy related changes may be due to difference in the sample size, population, duration and type of the study.

In the present study 2 cases of partial and complete mole were identified and a study done by Baral R., et al. [16] there was a single case of complete hydatidiform mole.

In the present study, 1% incidence of endometrial carcinoma was observed which is comparable with other study done by Baral R., et al. [16] which also observed an incidence of 1.0%.

In our present study an incidental finding of cervical squamous cell carcinoma was discovered. Kumaran, et al. noted that in a patient with complaints of abnormal uterine bleeding, suspicion of malignancy in the female genital tract should be considered even though it is uncommon. Single case of cervical carcinoma was discovered in our study after D&C, though not suspected clinically.

Conclusion

Endometrial biopsy is a safe, reliable and less time consuming outpatient procedure which can be used as an initial diagnostic tool in the patients with abnormal uterine bleeding.

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