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HISTOPATHOLOGICAL STUDY OF ENDOMETRIUM IN ABNORMAL UTERINE BLEEDING IN WOMEN OF ALL AGE GROUPS IN WESTERN RAJASTHAN (400 CASES)

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ABSTRACT

This study was conducted in 400 cases of endometrium in women of all age groups. The mean age of women presenting with abnormal uterine bleeding was 41 years. normal physiological changes of menstrual cycle, seen as proliferative and secretory phases of endometrium, were the most common histological findings present in 287 cases (71.75%). benign lesions were found in 19% cases followed by precursor lesions in 4.75% cases and malignant lesions in 4.5% cases. Histopathological examination of endometrial biopsy is a major diagnostic tool in evaluation of abnormal uterine bleeding (abnormal uterine bleeding) and a specific diagnosis could help the gynaecologist to plan therapy for successful management of abnormal uterine bleeding.

Keywords: *Abnormal Uterine Bleeding, Dysfunctional Uterine Bleeding, Menorrhagia, Menometrorrhagia, Oligomenorrhoea*

INTRODUCTION

Abnormal uterine bleeding (AUB) is considered one of the most common and challenging problems presenting to the gynecologist. It contributes to about one-third of all outpatients coming to gynae OPD. Any deviation in terms of cycle, duration of bleeding, amount of blood loss or combination of all, is called abnormal uterine bleeding. It includes both dysfunctional uterine bleeding (due to functional causes) & bleeding from structural causes like fibroids, polyps, and endometrial carcinoma & pregnancy complications. Dysfunctional uterine bleeding is defined as abnormal uterine bleeding without a demonstrable organic cause. Diagnostic techniques available for evaluation of abnormal uterine bleeding include endometrial biopsy, dilatation & curettage and ultrasonography.

MATERIALS AND METHODS

My study was prospective study of 400 cases of endometrial lesions in women of all age groups in Western Rajasthan. The study was carried out from January 2011 to April 2012 in the Department of Pathology at Dr. S.N. Medical College and Obstetrics and Gynaecology Department at Umaid Hospital Jodhpur.

The surgical specimens received and processed and H&E stained slides were prepared for microscopic examination. Detailed clinical informations were obtained from the requisition forms and case sheets. Finally all the datas were compiled and results were tabulated.

RESULTS AND DISCUSSION

Results

Total 400 cases of abnormal uterine bleeding were studied. Majority of the patients who presented with abnormal uterine bleeding were in the perimenopausal (41-50 yrs.) age group followed by 31-40 years. Minimum numbers of cases were found in 11-20 years of age group. The mean age of women presenting with abnormal uterine bleeding was 41 years.

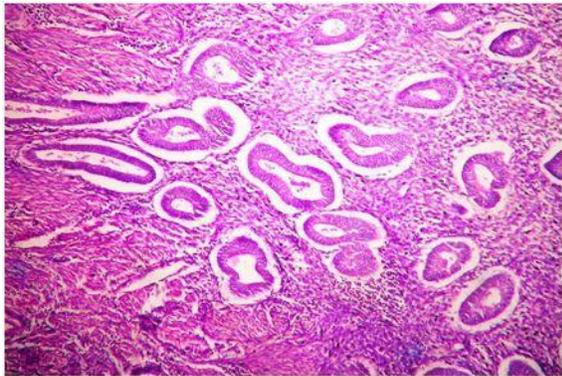
Most common clinical presentation of abnormal uterine bleeding was menorrhagia in 49% cases followed by menometrorrhagia in 22% cases, metrorrhagia in 16.75% cases and postmenopausal bleeding in 10% cases.

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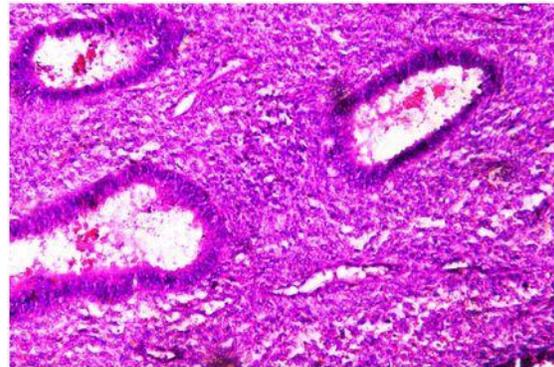
Normal physiological changes of menstrual cycle, seen as proliferative and secretory phases of endometrium, were the most common histological findings present in 287 cases (71.75%). Benign lesions were found in 19% cases followed by precursor lesions in 4.75% cases and malignant lesions in 4.5% cases. Out of 287 cases of functional causes, majority of cases were in proliferative phase (220 cases) followed by secretory phase (67 cases).

Most common lesion of endometrium in my study was simple endometrial hyperplasia comprising 66 cases. Among 18 malignant lesions of the endometrium, carcinoma of endometrium was found in 14 cases (well differentiated adenocarcinoma in 27.77% cases of total malignant lesions followed by papillary serous carcinoma in 22.22% cases), endometrial stromal sarcoma in 3 cases and malignant mixed mullerian tumor in one case.

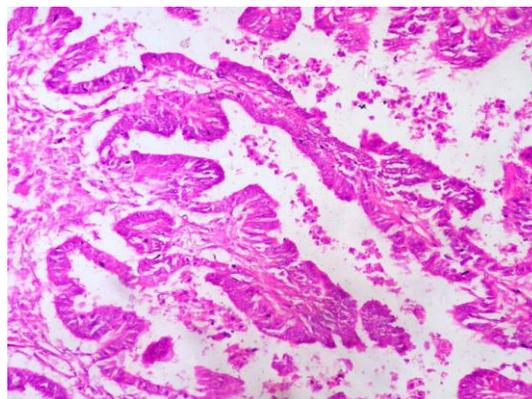
Patients who presented with postmenopausal bleeding had proliferative phase in 45% cases as most common histopathological diagnosis followed by endometrial carcinoma in 32.50% cases, simple endometrial hyperplasia in 10% cases, endometrial polyp and endometrial stromal sarcoma in 5% cases each and malignant mixed mullerian tumor in one case (2.50%).



Photomicrograph 01: Proliferative phase (H&E 10x)



Photomicrograph 02: Simple endometrial hyperplasia with atypia : Histological section showing glands lined by atypical cells that are separated by abundant endometrial stroma



Photomicrograph 03: Papillary serous carcinoma of endometrium: (H&E 20x)

Discussion

Abnormal uterine bleeding predominantly affects women of Perimenopausal (41-50 years) age group because of increased incidence of intrauterine lesions. Both types of abnormal uterine bleeding (organic lesions & dysfunctional) were most common in Perimenopausal (41-50 years) age group i.e. 36.58%, 53.98% respectively. In my study 41.50% cases were in Perimenopausal (41-50 years) age group and

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33.25 % cases were in 31-40 years age group. This study is comparable with Muzaffar *et al.*, (2005) comprising 48.1% and 39.2% in perimenopausal & 31-40 years age group respectively. Study by Saraswathi *et al.*, (2011) showed similar results with majority of cases (33.5%) in perimenopausal (41-50 yrs.) age group. Abdullah and Bondagji (2011) also showed 32.03% patients in perimenopausal age group.

In my study the mean age of women presenting with abnormal uterine bleeding was 41 years which is comparable with Upadhyaya and Malla (mean age-43.15 years) and Dasgupta *et al.*, (2011) (mean age-46.2 years).

Commonest bleeding patterns in my study were found to be menorrhagia 49%, menometrorrhagia 22% and metrorrhagia 16.75% followed by postmenopausal bleeding 10%, polymenorrhea 1.75% and oligomenorrhea 0.50%. Bleeding patterns were comparable with Muzaffar *et al.*, (2005) comprising menorrhagia 51.9% and metrorrhagia 35.4%. Study by Ara and Roohi (2011) showed similar results comprising menorrhagia 49.06%, metrorrhagia 39.13% followed by postmenopausal bleeding 6.83% and polymenorrhea 3.12%. Upadhyaya and Malla found that main symptom of abnormal uterine bleeding was menorrhagia (57.55%) followed by metrorrhagia (33.96%), polymenorrhea 6.60 % and 1.89% women had menometrorrhagia.

Incidence of functional causes in my study was 71.75% which was comparable with Muzaffar *et al.*, (2005) (61%), Ara and Roohi (2011) (62.11%), Abdullah and Bondagji (2011) (61.5%) and Talat *et al.*, (2012) (57%).

Incidence of endometrial polyp in my study was 2.5% which is comparable with Noshin *et al.*, (1996) (3.21%) and Muzaffar *et al.*, (2005) (1.20%).

In present study the incidence of endometrial hyperplasia was 20.75% which is correlated closely with that Muzaffar *et al.*, (2005) (24.70%). Incidence of simple endometrial hyperplasia was 16.5% correlated closely with Noshin *et al.*, (1996) (17.90%) and Muzaffar *et al.*, (2005) (15.00%). The present study noted 4.25% cases of complex endometrial hyperplasia which is comparable with Muzaffar *et al.*, (2005) (8.50%) and Abdullah and Bondagji (2011) (2.10%).

The present study noted 3.5% cases of carcinoma of endometrium which can be correlated with Moghal (1997) (0.44%) and Ara and Roohi (2011) (1.86%).

The present study noted 1 case of malignant mixed mullerian tumor out of 400 cases which was comparable with Moghal (1997) and Saraswathi *et al.*, (2011) studies.

Incidence

In the present study 18 cases (4.5%) out of 400 who presented with abnormal uterine bleeding proved to be malignant on histopathological examination. Patients who presented with postmenopausal bleeding had endometrial carcinoma in 13 cases (32.5%) out of 40 cases. Similarly 19 cases (4.75%) of abnormal uterine bleeding were diagnosed as precursor lesions (complex endometrial hyperplasia and simple endometrial hyperplasia with atypia).

Conclusion

These results clearly show that histopathological study is mandatory for all cases of AUB so as to rule out the process of developing or fully developed malignant lesions. This simple study of endometrial biopsy itself can be of a great help to the gynecologist to plan therapy of a patient, by a close follow up of a patient who has a precursor lesion or by timely surgical intervention in case of proved malignancy.

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