

Research Article

Clinicopathological Correlation of Endometrium in Abnormal Uterine Bleeding

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Abstract: Abnormal uterine bleeding is a challenging gynecological problem caused by various endometrial pathology. The present study is to evaluate clinically gynaecological causes of abnormal uterine bleeding and to study endometrial pattern in AUB. It was a retrospective study of patients who have had abnormal uterine bleeding performed at the Department of Obstetrics and Gynecology S.N.M.C & H.S.K Hospital and Research Centre Bagalkot from March 2010 to May 2011, 85 women with abnormal uterine bleeding were evaluated clinically and correlated with histopathological findings of endometrium. 85 patients with abnormal uterine bleeding were divided into reproductive, perimenopausal and postmenopausal age groups. Maximum number of patients (61.1%) were in the perimenopausal age group. Abnormal uterine bleeding was high in parity 3 and grand multipara. Menorrhagia (45.8%) was the most common bleeding pattern seen. DUB was the most common clinical diagnosis followed by fibroid uterus. Histopathological report revealed that endometrium was proliferative in 44.7% and secretory in 23.5% of cases. Endometrial hyperplasia was seen in 9.4% of cases. Abnormal uterine bleeding predominantly affects women of perimenopausal age group which is alarming and needs thorough evaluation as it could be the only clinical manifestation of endometrial cancer.

Keywords: Abnormal uterine bleeding, Histopathology, Menorrhagia

INTRODUCTION

Abnormal uterine bleeding is considered as one of the most common and challenging problem presenting to the gynaecologist. It is responsible for as many as one-third of all outpatient gynaecological visits [1,2]

It may represent a normal physiologic state and observation alone may be warranted. Alternatively the bleeding can be a sign of a serious underlying condition necessitating aggressive treatment that could include a major procedure [3].

Abnormal uterine bleeding include both dysfunctional uterine bleeding and bleeding from structural causes like fibroids, polyps and endometrial carcinoma [4].

Dysfunctional uterine bleeding is defined as abnormal uterine bleeding without a demonstrable organic cause [5]. It may be anovulatory characterised by irregular, unpredictable bleeding (metro-rhagia) or ovulatory resulting in heavy but regular periods (menorrhagia) [6].

According to the center for disease control and prevention in United States about 5 per 1000 women undergo hysterectomy annually in USA and about 1 in 4 women will have hysterectomy by the age of 60 yrs [7].

This study is a retrospective study of pattern of uterine pathologies at hysterectomy in order to identify the most common causes of AUB and to correlate them with clinical diagnosis and histopathology.

MATERIALS AND METHODS

This is a retrospective study conducted at the department of OBG, S.N.M. C and H.S.K. Hospital and Research Center Bagalkot. Records from history sheets and files of patients admitted in gynaec ward for hysterectomy for AUB during the period March 2010 to May 2011 were collected. Women with bleeding due to pregnancy related complications such as abortion, gestational trophoblastic diseases, ectopic pregnancy and clinically diagnosed cases of local lesions like carcinoma cervix were excluded from the study.

Information was collected regarding age, parity, clinical features, menstrual history and pre-op diagnosis/ indications for hysterectomy. Histopathology reports of the same patients were collected from department of pathology and their diagnosis was noted. Data was analysed by using percentages.

RESULTS

Out of 85 women included in this study 61.1% women were in the age group of 36 yrs-50 yrs (perimenopausal) followed by 29.4% in the age group of 21-35 yrs and 9.4% were in the age group beyond 50 yrs. (Table 1). Abnormal uterine bleeding was high in parity 3 (34.11%) and grand multipara (25.8%). This shows incidence of abnormal uterine bleeding increases as the parity increases.

The majority of the women (45.8%) presented with

menorrhagia, 28.2% with metrorrhagia, polymenorrhagia was present in 20% of cases and 5.8% presented with postmenopausal bleeding (Table 2).

Clinically 38.8% were fibroid uterus 40.0% were diagnosed as DUB. Adenomyosis was diagnosed in 8.2% of cases, fibroid polyp in 3.5% of cases. Postmenopausal bleeding was seen in 5.8% of cases (Table 3).

Histopathological reports revealed that endometrium was proliferative in 44.7% and secretory in 23.5%. Atrophic endometrium was seen in 5.8% and endometritis in 9.4%. Adenomyosis was seen in 7.05% of cases and endometrial hyperplasia was seen in 9.4% of cases (Table 4).

Table 1: Patients in different age group

Age	Number of patients	Percentage
<20 yrs	0	
21-35 yrs(Reproduction)	25	29.4%
36-50 yrs (Perimenopausal)	52	61.1%
>51 yrs	8	9.4%

Table 2: Correlation of parity with AUB

Parity	Number of cases	Percentage
0	5	5.8%
1	7	8.2%
2	22	25.8%
3	29	34.11%
Grand multipara	22	25.8%

Table 3: Different bleeding patterns in AUB

Pattern	Number of cases	Percentage
Menorrhagia	39	45.8%
Metrorrhagia	24	28.2%
Polymenorrhagia	17	20%
Postmenopausal	5	5.8%

Table 4: Clinical diagnosis of AUB

Diagnosis	Number of cases	Percentage
Fibroid	33	38.8%
DUB	34	40.0%
Adenomyosis	7	8.2%
Postmenopausal	5	5.8%
DUB+Fibroid	3	3.5%
Fibroid polyp	3	3.5%

Table 5: Endometrial pattern in AUB

Type	Number of cases	Percentage
Proliferative Endometrium	38	44.7%
Secretory Endometrium	20	23.5%
Endometritis	8	9.4%
Atrophic Endometrium	5	5.8%
Adenomyosis	6	7.05%
Endometrial hyperplasia	8	9.4%

DISCUSSION

Abnormal uterine bleeding is a common gynaecological problem accounting for up to 20% office visits to gynaecologist [8]. Abnormal uterine bleeding is common in perimenopausal age group. In the perimenopausal years menstrual cycles often become irregular due to decreased number of ovarian follicles and their increased resistance to gonadotrophic stimulation resulting in low level of oestrogen which cannot keep the normal endometrium growing [9].

In our study AUB was predominantly seen in perimenopausal age group i.e 61.1% followed by reproductive age group 29.4%. While these were 59.02% & 36.64% according to study given by Sarwat *et al.* [10] & 70% and 25% according to author Kaunitz *et al.* [11].

The incidence of AUB was high as the parity increases in our study. Similar results were seen in study conducted by Bhosle *et al.* [12].

Commonest bleeding pattern in my study were found to be menorrhagia 45.8% followed by metro-rhagia in 28.2% and polymenorrhagia in 20%. Post menopausal bleeding was seen in 5.8%. The bleeding pattern was similar to study by Muzzafar *et al.* [13].

Clinically fibroid was diagnosed in 38.8% of AUB & DUB in 40.0% of cases. Adenomyosis was seen in 9.4% of cases. These results were comparable to study conducted by Bhosle *et al.* [12].

In the present study the two most common endometrial histopathology were proliferative and secretory endometrium. This finding is similar to other studies [14].

Endometrial hyperplasia is a precursor of endometrial cancer. The incidence of endometrial hyperplasia without and with atypia peaks in early 50's and early 60's respectively [15,16].

The incidence of endometrial hyperplasia in our study was 9.4% which was almost comparable with study conducted by Dangal *et al.* where it was 10.7%. The incidence of atropic endometrium is only 5.8% and endometritis was 9.4% whereas it was 34.5% & 6% in study conducted by Dangal *et al.* [17]. This is probably

because numbers of postmenopausal women in this study group were more.

Among the hyperplasia simple hyperplasia was seen in 4.7%, complex hyperplasia without atypia in 3.5% and complex hyperplasia with atypia was seen in 1.17% cases. Our results were comparable with other authors [14].

In postmenopausal women the finding is compatible with atropic endometrium. The causes of bleeding in these women are most likely due to superficial petechial hemorrhages and mucosal ulceration arising from the fragile vasculature support provided by a thin underlying stroma.

CONCLUSION

Abnormal uterine bleeding predominantly affects women of perimenopausal age group which is alarming and needs thorough evaluation as it could be the only clinical manifestation of endometrial cancer.

In our study DUB and fibroid were the most common cause for AUB followed by adenomyosis. All these women underwent D&C or hysterectomy depending on the diagnosis. Histopathology revealed majority of endometrium in proliferative and secretory phase followed by endometrial hyperplasia. Though hysterectomy remained the commonest method of intervention, it is the responsibilities of health care professionals to encourage implementation of alternative procedures to ensure that women receive maximum benefits with least morbidity.

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