Original Research Article

Evaluation of endometrium in peri-menopausal women in case of abnormal uterine bleeding

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Abstract

Introduction: Abnormal uterine bleeding should include all abnormalities of menstruation like hypermenorrhea as well as hypomenorrhea. Abnormal bleeding is synonymous only with excessive menstruation. Abnormal uterine bleeding (AUB) is one of the most common conditions for which women consult their gynaecologists.

Material and methods: This was a retrospective study done in Dhiraj Hospital over a period of six month on patients presenting with AUB. Patients were selected based on clinical details. The study material included a total no. of 60 patients which were inclusive of endometrial samples. Patients with isolated endometrial causes of abnormal uterine bleeding were included for this study and those with pregnancy, profusely bleeding per vaginum, anemic patients were excluded. All specimens were transported in 10% formalin to the pathology laboratory. The gross morphology was recorded. Microscopic examination was done by two pathologist so as to reduce inter observer findings. The data collected for this study was statistically analyzed using chi-square test.

Results: In the present study, maximum age occurrence was between 40-49 years, the youngest patient in this study was 22 year old and the oldest was 54 year. Majority of the patients presented with menorrhagia (50%) followed by post- menopausal bleeding (28.3%). There were 8 cases (13.3%) with polymenorrhagia and 5 patients (8.3%) with metrorrhagia. 36 (60%) normal cases were reported. The diagnosis of 9 (15%) cases of endometrial polyps and endometrial hyperplasia were 10 (16.6%)

among them 2 (20%) was hyperplasia with atypia and 8 (80%) were hyperplasia without atypia, atrophic endometrium was present in 2 cases (3.3%), endometritis in 3 cases (5%). Histopathology correctly diagnosed all cases.

Conclusion: Histopathological examination after Dilatation and curettage is necessary tool for ruling out the organic pathology in uterus in those patients where history, systemic and pelvic examination reveals no pathology. Dilatation and curettage findings of organic pathology like TB, endometrial carcinoma, endometrial polyp etc. will rule out at the given cases AUB. Presence of organic pathology tells the case is of AUB. Further it helps in differentiating in ovulatory and an-ovulatory cycle and therefore guides the clinician and hormonal management.

Key words

Endometrium, Abnormal uterine bleeding, AUB, Peri-menopausal women.

Introduction

Abnormal uterine bleeding should include all abnormalities of menstruation like hypermenorrhea as well as hypomenorrhea. Abnormal bleeding is synonymous only with excessive menstruation. Abnormal uterine bleeding (AUB) is one of the most common conditions for which women consult their gynaecologists. AUB may be defined as any variation from the normal menstrual cycle, including alteration in its regularity, frequency of menses, duration of flow, and amount of blood loss. AUB may be subdivided based on volume of menstruation, regularity, frequency, duration, chronicity, and timing related to reproductive status [1].

AUB can occur at any age in various forms. Abnormal uterine bleeding during reproductive age can result from a broad spectrum of conditions ranging from physiological process to malignant lesions involving organic, systemic, and hormonal responses. It may be due to fibromyoma, adenomyosis, endometrial polyp, ovarian tumour, pelvic inflammatory disease (PID), endometrial hyperplasia, endometrial carcinoma, hormonal imbalance (e.g. hypothyroidism), or hypothalamic-pituitary diseases.

AUB interferes with a woman's physical, social, emotional quality of life. It has been seen that women with heavy bleeding of unpredictable onset take a step back from participating in routine activities, as they may require continuous access to pads and/or tampons, and they have a fear of social activity or unpredictable and unscheduled bleeding often leads to psychological, medical, and sexual problems requiring pharmacologic and surgical interventions. Successful clinical management is to recognize or identify the causative factors responsible. The first aim of the clinician is to reverse the abnormality and induce or restore the cyclic predictable menses of normal volume and duration. This can be achieved by thorough clinical examination, ultrasonography and histopathological examination. When no systemic and pelvic cause is evident to clinician, histopathological examination remains the only alternative to reach the diagnosis, after ruling out the organic causes.

Material and methods

This was a retrospective study done in Dhiraj Hospital in Obstetrics and Gynecology department over a period of six month on patients presenting with AUB and collaboration with the Department of Pathology of S B K S Medical Institute and Research Centre, Vadodara. Patients were selected based on clinical details. The study material included a total no. of 60 patients which were inclusive of endometrial samples. Patients with isolated endometrial causes of abnormal uterine bleeding were included for this study and those with pregnancy, profusely bleeding per vaginum, anemic patients were excluded. All specimens

were transported in 10% formalin to the pathology laboratory. The gross morphology was recorded. Microscopic examination was done by two pathologist so as to reduce inter observer findings. The data collected for this study was statistically analyzed using chi-square test.

Results

Total 60 patients were presented with abnormal uterine bleeding followed by dilatation and curettage. The curetted endometrium was sent for histopathological analysis. In the present study, maximum age occurrence was between 40-49 years, the youngest patient in this study was 22 year old and the oldest was 54 year (**Table – 1**).

Table – 1: Distribution according to age.

Age (Years)	No (60)	%
20-29	6	10%
30-39	14	23.3%
40-49	31	45%
50-55	9	15%

Majority of the patients presented with menorrhagia (50%) followed by post-menopausal bleeding (28.3%). There were 8 cases (13.3%) with polymenorrhagia and 5 patients (8.3%) with metrorrhagia (**Table – 2**).
36 (60%) normal cases were reported. The diagnosis of 9 (15%) cases of endometrial polyps and endometrial hyperplasia were 10 (16.6%) among them 2 (20%) was hyperplasia with atypia and 8 (80%) were hyperplasia without atypia, atrophic endometrium was present in 2 cases (3.3%), endometritis in 3 cases (5%). Histopathology correctly diagnosed all cases (**Table – 3**).

Table – 2: Distribution according to clinical presentation.

Clinical presentation	No (60)	%
Menorrhagia	30	50%
Polymenorrhoea	8	13.3%
Metrorrhagia	5	8.3%
Post-menopausal bleeding	17	28.3%

Discussion

The causes of abnormal uterine bleeding include a wide spectrum of diseases of the reproductive system and non-gynaecological causes [2]. When an organic cause of abnormal uterine bleeding cannot be found, then a diagnosis of dysfunctional uterine bleeding is assumed as the diagnosis is made by exclusion [3]. In about 20-30% of cases, the abnormal uterine bleeding is the result of a well-defined organic abnormality [4].

Table – 3: Distribution according to endometrial histopathology.

Histopathology report	No (60)	%
Normal	36	60%
Normal secretory	12	33.3%
Normal proliferative	24	66.6%
Endometrial hyperplasia	10	16.6%
Endometrial hyperplasia with atypia	2	20%
Endometrial hyperplasia without atypia	8	80%
Endometrial polyp	9	15%
Endometritis	3	5%
With tuberculosis	1	33.3%
Non-specific	2	66.6%
Endometrial atrophy	2	3.3%

In our case study, routine non-invasive investigations for abnormal uterine bleeding were carried out which included – complete blood count, platelet count, LFT, PT, APTT, INR so as to rule out any coagulation or bleeding disorder. To rule out endocrinological causes, thyroid function test was carried out.

Once, the above tests were found within normal limits, ultrasonography was carried out if no demonstrable etiology was found then dilatation and curettage was carried out for diagnostic as well as therapeutic procedure. The sensitivity of dilatation and curettage for detection of endometrial abnormalities was reported to be as high as 96% [2].

In our study, 60% of cases had normal cyclical pattern. These patients belonged to reproductive age group and some required no treatment, so reassurance was offered to them and some required hysterectomy. In 36 (60%) patients, the histopathology report showed proliferative phase in 24 (66.6%) patients and secretory phase in 12 (33.3%) patients.

In 24 (66.6%) patients, 20 patients had hyperplastic endometrium they were treated with tab Medroxyprogesterone 10mg from 16^{th} to 25^{th} day of menses for 3-6 cycles, and 4 patients had very thin endometrial layer. Out of 20 patients, there were 8 patients who were satisfied with this therapy and continued the therapy till menopause.

Out of 12 (33.3%) patients with secretory phase, 10 patients had adenomyosis and fibroid uterus and they were selected for hysterectomy. Rest 4 patients had taken the same hormonal treatment but were not satisfied with therapy so they opted for hysterectomy. 3 (5%) patients had endometritis, 1 patient has endometrial tuberculosis and were treated with AKT. And the rest 2 patients were non-specific. 9 (15%) patients had endometrial polyp, and they were benefitted with therapeutic dilatation and curettage.

10 (16.6%) patients had endometrial hyperplasia, on histopathology report, 8 patients had endometrial hyperplasia without cellular or stromal atypia, they were treated with tab Medroxyprogesterone 10 mg, among them 6 patients had hysterectomy willingly because of they had psychological stress and hampering daily routine activity. And 2 patients were satisfied with progesterone therapy. Rest of 2 patients had cellular hyperplasia with atypia they were selected for hysterectomy.

Conclusion

Histopathological examination after Dilatation and curettage is necessary tool for ruling out the organic pathology in uterus in those patients where history, systemic and pelvic examination reveals no pathology. Dilatation and curettage findings of organic pathology like TB, endometrial carcinoma, endometrial polyp etc. will rule out at the given cases AUB. Presence of organic pathology tells the case is of AUB. Further it helps in differentiating in ovulatory and an-ovulatory cycle and therefore guides the clinician and hormonal management. Organic pathology found in Dilatation and curettage deserves treatment on its weight. Dilatation and curettage is going to help as a curative means when endometrial pathology like endometrial polyp gets eliminated.

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