

# Abnormal uterine bleeding: Its differential diagnosis

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## Abstract

**Objectives:** to evaluate the clinical picture and endometrial pattern of abnormal uterine bleeding abnormal uterine bleeding. **Materials and Methods:** In the present study was total 142 patients of abnormal uterine bleeding were enrolled. All patients were selected based on clinical details along with the relevant investigations. For confirming the diagnosis histopathological and cytological examination was performed in all the patients. The final diagnosis was based on the histopathological report. **Results:** Majority of the patients were in the age group of 41- 50 years of age followed by 31-40years of age. 37.32% were third para whereas 31.69% were grand multipara. Menorrhagia (60.56%) was the most common clinical presentation. Polymenorrhoea was observed in 11.97% women. Menometrorrhagia and Metrorrhagia was observed in 8.45% and 6.34% women respectively. Endometrial hyperplasia was the most common cause of abnormal uterine bleeding and was confirmed in 27.46% of cases. Luteal phase insufficiency (15.49%) and Secretary phase (14.79%) was the second and third most common cause observed. Chronic endometritis, endometrial polyp, proliferative phase and anovulatory cycles etc were the other causes observed. **Conclusion:** Thus we conclude that abnormal uterine bleeding was common in 4<sup>th</sup> decade of life among the multiparous women with Menorrhagia as the most common presenting symptom followed by Polymenorrhoea, Menometrorrhagia and Metrorrhagia were observed. Among the causes endometrial hyperplasia was the most common cause of abnormal uterine bleeding. Luteal phase insufficiency and Secretary phase was the second and third most common cause observed.


**Key Words:** Abnormal uterine bleeding, Menorrhagia, Histopathology endometrial hyperplasia.

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## INTRODUCTION

Abnormal uterine bleeding is irregular uterine bleeding that occurs in the absence of recognizable pelvic pathology, general medical disease, or pregnancy.<sup>1</sup> It reflects a disruption in the normal cyclic pattern of ovulatory hormonal stimulation to the endometrial lining. The bleeding is unpredictable in many ways. It may be excessively heavy or light and may be prolonged, frequent, or random. Excessive uterine bleeding is one of the most common complaints encountered in clinical practice. The social and economic cost of menorrhagia is considerable. Over the years menorrhagia has become a

frequent complaint possibly due to easy accessibility to health services<sup>2</sup>. Abnormal uterine bleeding is a common diagnosis, making up 5-10% of cases in the outpatient clinic setting. Because most cases are associated with anovulatory menstrual cycles, adolescents<sup>3</sup> and perimenopausal women<sup>4</sup> are particularly vulnerable. About 20% of affected individuals are in the adolescent age group, and 50% of affected individuals are aged 40-50 years. In a study of 400 perimenopausal women, the most common type of bleeding pattern was menorrhagia (67.5%), and the most common pathology was simple endometrial hyperplasia without atypia (31%).<sup>4</sup> Except for self-limited, physiologic withdrawal bleeding that occurs in some newborns, vaginal bleeding before menarche is abnormal.<sup>5</sup> In women of childbearing age, abnormal uterine bleeding includes any change in menstrual-period frequency or duration, or amount of flow, as well as bleeding between cycles.<sup>6</sup> In postmenopausal women, abnormal uterine bleeding includes vaginal bleeding 12 months or more after the cessation of menses, or unpredictable bleeding in postmenopausal women who have been receiving hormone therapy for 12 months or more.<sup>7</sup>

## MATERIALS AND METHODS

The present study was conducted in department of obstetrics and gynaecology of ABC Medical College. The study was conducted for the duration of six month. All the patients of abnormal uterine bleeding were enrolled in the present study. Detail history of all the selected patients was taken and recorded on a pretested proforma. All patients were selected based on clinical details along with the relevant investigations. Patients with change in bleeding pattern such as increase in duration or intermenstrual bleeding were included in the study while those with evidence of pelvic pathology, hormonal therapy within 3 months, intrauterine contraceptive device were excluded. The patients not willing to participate in the present study were also excluded. For confirming the diagnosis histopathological and cytological examination was performed in all the patients. Sample for cytology were collected in the premenstrual phase. Ayer’s spatula was used to take the sample from ectocervix and T-zone; smears made were fixed in 95 % alcohol with ether. Lateral Vaginal wall cytology sample was collected and sent for Papanicolaou staining. Endometrial tissue collected by sampling procedures such as endometrial biopsy, dilatation and curettage (D and C) and fractional curettage were sent to the pathology lab for evaluation. The gross morphology was recorded and the total tissue submitted was processed. Paraffin block were prepared and tissue section (4-6µ) were cut. The sections were stained with hematoxylin and eosin stain (H and E) and sent for microscopic examination by the pathologist. The final diagnosis was based on the histopathological report. The collected data was entered in Microsoft excel 2010 and was analyzed and present with appropriate table and graphs wherever required.

## RESULTS

**Table 1:** Age wise distribution of patients

Age group	No of patients	%
11-20	11	7.75
21-30	26	18.31
31-40	38	26.76
41-50	51	35.92
51-60	16	11.27
<b>Total</b>	<b>142</b>	<b>100</b>

In the present study total 142 women with abnormal bleeding from the uterus were studied. Majority of the patients were in the age group of 41- 50 years of age followed by 31-40years of age.

**Table 2:** Parity wise distribution of patients

Parity	No of patients	%
0	4	2.82
1	9	6.34
2	31	21.83
3	53	37.32
Grand multipara	45	31.69

It was seen that majority of the women with abnormal uterine bleeding were multiparous. 37.32% were third para whereas 31.69% were grand multipara.

**Table 3:** Distribution according to Clinical Presentation

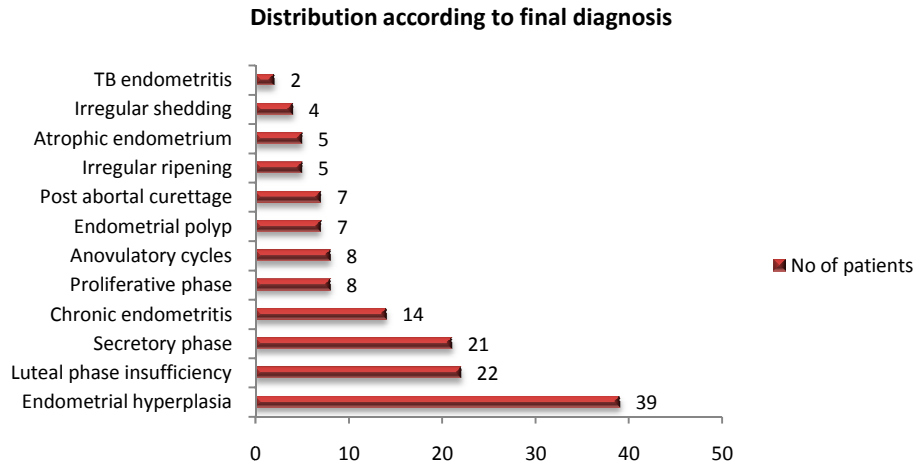
Bleeding pattern	No of patients	%
Menorrhagia	86	60.56
Polymenorrhagia	7	4.93
Polymenorrhoea	17	11.97
Metrorrhagia	9	6.34
Menometrorrhagia	12	8.45
Oligomenorrhea	3	2.11
Continuous bleeding	4	2.82
Post menopausal	4	2.82
<b>Total</b>	<b>120</b>	<b>100</b>

Menorrhagia was the most common clinical presentation and was observed in 60.56% women. Polymenorrhoea was observed in 11.97% women. Menometrorrhagia and Metrorrhagia was observed in 8.45% and 6.34% women respectively.

**Table 4:** Distribution according to final diagnosis

Histopathological findings	No of patients	%
Endometrial hyperplasia	39	27.46
Luteal phase insufficiency	22	15.49
Secretory phase	21	14.79
Chronic endometritis	14	9.86
Proliferative phase	8	5.63
Anovulatory cycles	8	5.63
Endometrial polyp	7	4.93
Post abortal curettage	7	4.93
Irregular ripening	5	3.52
Atrophic endometrium	5	3.52
Irregular shedding	4	2.82
TB endometritis	2	1.41

The diagnosis was confirmed by Histopathological examination. It was observed that endometrial hyperplasia was the most common cause of abnormal uterine bleeding and was confirmed in 27.46% of cases. Luteal phase insufficiency (15.49%) and Secretory phase (14.79%) was the second and third most common cause observed. Chronic endometritis, endometrial polyp, proliferative phase and anovulatory cycles etc were the other causes observed.



**Figure 1:** Distribution according to final diagnosis

## DISCUSSION

The present study was conducted with the aim to evaluate abnormal uterine bleeding observed in tertiary care institute. It was seen that there were total 142 women with abnormal bleeding were enrolled in the present study. Majority of the patients were in the age group of 41- 50 years of age followed by 31-40years of age. Similar findings were also reported by Rehana Khan *et al*<sup>8</sup> and Chary R *et al*<sup>9</sup> in their study. It was seen that majority of the women with abnormal uterine bleeding were multiparous. 37.32% were third para whereas 31.69% were grand multipara. Thus multiparous women have a slightly more average blood loss as compared to nulliparous. Kavita Babbar *et al*<sup>10</sup> also observed majority of the grand multiparous women in their study. The presenting complaints ranged from hypomenorrhea to menorrhagia. On analyzing, the distribution of patients according to bleeding pattern. Menorrhagia was the most common clinical presentation and was observed in 60.56% women. Polymenorrhoea was observed in 11.97% women. Menometrorrhagia and Metrorrhagia was observed in 8.45% and 6.34% women respectively. The findings were comparable with the findings observed by Rehana Khan *et al*<sup>8</sup>, Chary R *et al*<sup>9</sup> and Kavita Babbar *et al*<sup>10</sup>. Terms associated with abnormal uterine bleeding are inconsistently defined in the literature, complicating the approach to evaluation and management.<sup>11</sup> International experts are working to develop consensus on these definitions to improve evidence-based care.<sup>11</sup> Abnormal uterine bleeding that occurs from adolescence through perimenopause can be broadly divided into two categories: anovulatory and ovulatory. Anovulatory bleeding is characterized by irregular or infrequent periods, with flow ranging from light to excessively heavy.<sup>12</sup> Terms commonly associated with anovulatory

bleeding include amenorrhea (absence of periods for more than three cycles), oligomenorrhea (menses occurring at intervals of more than 35 days), metrorrhagia (menses at irregular intervals with excessive bleeding or lasting more than seven days), and dysfunctional uterine bleeding (anovulatory bleeding in which underlying etiologies have been ruled out).<sup>13</sup> In contrast to anovulatory patterns, ovulatory abnormal uterine bleeding (menorrhagia) occurs at regular intervals (every 24 to 35 days), but with excessive volume or duration of more than seven days.<sup>13</sup> Excessive menstrual bleeding is defined as the need to change menstrual products every one to two hours, passage of clots greater than 1 inch (2.54 cm), and/or “very heavy” periods as reported by the patient.<sup>5,6</sup> It is commonly associated with low ferritin levels.<sup>14</sup> The diagnosis was confirmed by Histopathological examination. It was observed that Endometrial hyperplasia was the most common cause of abnormal uterine bleeding and was confirmed in 27.46% of cases. Luteal phase insufficiency (15.49%) and Secretory phase (14.79%) was the second and third most common cause observed. Chronic endometritis, endometrial polyp, proliferative phase and anovulatory cycles etc were the other causes observed. Rehana Khan *et al*<sup>8</sup> in their study done histopathological evaluation in 102 patients and observed that hyperplasia was the commonest endometrial pathology (20.5%) followed by luteal phase insufficiency (15.6%) and secretory endometrial (13.7%). Endometritis including tubercular endometritis (12.7%), post abortal (5.8%), proliferative (6.8%), polyp (3.9%), atrophic (3.9%), exogenous hormone changes (2.9%) and anovulatory cycles (6.8%) made up for the remaining lesions. Similar findings were also reported by Baral R *et al*<sup>15</sup> and Muzzafar M *et al*<sup>16</sup> in their study. The limitations of the present study are its

small sample size which if larger would give a broader picture of the problem in the community. Evaluation of women with dysfunctional uterine bleeding is necessary especially around the perimenopausal age group to detect any abnormal changes and intervene early. Histopathological examination and cervical smears remain the standard procedures for diagnosis.

## CONCLUSION

Thus we conclude that abnormal uterine bleeding was common in 4<sup>th</sup> decade of life among the multiparous women with Menorrhagia a sthe most common presenting symptom followed by Polymenorrhoea, Menometrorrhagia and Metrorrhagia were observed. Among the causes endometrial hyperplasia was the most common cause of abnormal uterine bleeding. Luteal phase insufficiency and Secretary phase was the second and third most common cause observed.

## REFERENCES

1. Khrouf M, Terras K. Diagnosis and management of formerly called "dysfunctional uterine bleeding" according to PALM-COEIN FIGO classification and the new guidelines. *J Obstet Gynaecol India*. 2014 Dec. 64 (6):388-93.
2. Edlund M, Magnusson C, Von Schoultz B et al. Quality of life, a Swedish survey of 2200 women with DUB. *London Royal Society of Medicine Press*.1994;36-7
3. Bennett AR, Gray SH. What to do when she's bleeding through: the recognition, evaluation, and management of abnormal uterine bleeding in adolescents. *Curr Opin Pediatr*. 2014 Aug. 26 (4):413-9.
4. Rezk M, Masood A, Dawood R. Perimenopausal bleeding: Patterns, pathology, response to progestins and clinical outcome. *J Obstet Gynaecol*. 2015 Jul. 35 (5):517-21.
5. Hill NC, Oppenheimer LW, Morton KE. The aetiology of vaginal bleeding in children. A 20-year review. *Br J Obstet Gynaecol* 1989; 96:467-70. 4.
6. Livingstone M, Fraser IS. Mechanisms of abnormal uterine bleeding. *Hum Reprod Update* 2002; 8: 60-7.
7. Lethaby A, Farquhar C, Sarkis A, Roberts H, Jepson R, Barlow D. Hormone replacement therapy in postmenopausal women: endometrial hyperplasia and irregular bleeding. *Cochrane Database Syst Rev* 2003 ;(4):CD000402.
8. Rehana Khan, Rana K Sherwani, Safia Rana, Seema Hakim, Zeeba S Jairajpuri. *Clinico-Pathological Patterns in Women with Dysfunctional Uterine Bleeding*. *Iran J Pathol*. 2016 Winter; 11(1): 20–26.
9. Nagarjuna Chary R, Ather Fatima, Joya Rani D. Endometrial histopathological changes associated with dysfunctional uterine bleeding. *Asian Pac. J. Health Sci.*, 2016; 3 (2):106-109.
10. Babbar K, Jogi S, Arya RC. Clinical Pattern and Spectrum of Endometrial Pathologies in Abnormal Uterine Bleeding in Perimenopausal and Postmenopausal Women: Experience in a Tertiary Care Institute. *J South Asian Feder Menopause Soc* 2015; 3(1):9-14.
11. Fraser IS, Critchley HO, Munro MG, Broder M; Writing Group for this Menstrual Agreement Process. A process designed to lead to international agreement on terminologies and definitions used to describe abnormalities of menstrual bleeding [published correction appears in *Fertil Steril*. 2007; 88(2):538]. *Fertil Steril*. 2007; 87(3):466-476.
12. ACOG Committee on Practice Bulletins—Gynecology. American College of Obstetricians and Gynecologists. ACOG practice bulletin: management of anovulatory bleeding. *Int J Gynaecol Obstet*. 2001; 72(3):263-271.
13. Speroff L, Fritz MA. *Clinical Gynecologic Endocrinology and Infertility*. 7th ed. Philadelphia, Pa.: Lippincott Williams and Wilkins; 2005:402, 547, 549, 553-556, 560-561, 566, 569, 628-629, 808, 811.
14. Warner PE, Critchley HO, Lumsden MA, Campbell-Brown M, Douglas A, Murray GD. Menorrhagia I: measured blood loss, clinical features, and outcome in women with heavy periods: a survey with follow-up data. *Am J Obstet Gynecol*. 2004; 190(5):1216-1223.
15. Baral R, Pudasini S. Histopathological pattern of endometrial samples in abnormal uterine bleeding. *J Path Nepal* 2011; 1:13-16.
16. Muzzafar M, Akhtar KAK, Yasmin S, Rehman M, Iqbal W, Khan MA. Menstrual Irregularities with excessive blood loss: a clinico-pathological correlation. *J Pak Med Assoc* 2005; 55:486-9.

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