

Study of Causes of Abnormal Uterine Bleeding in Adolescent, Reproduction and Perimenopausal Women, in the age Group of 13-45 Years

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Abstract

Background: To investigate the causes of AUB in teenager, reproductive and premenopausal women. To examine the connection between the incidence of risk factors and the causes of abnormal uterine bleeding in the 13 to 45 age range. **Materials and Methods:** Observational prospective research was carried out at the Department of Obstetrics and Gynecology, Shadan Institute of Medical Sciences, teaching hospital and research centre, Hyderabad, Telangana, India for a period 22 months from August 2020 to June 2022. This systematic physical study was conducted in order to determine causes of abnormal uterine bleeding in adult female in various age groups. **Results:** 30 (20%) of the 150 patients had oligomenorrhagia, 99 (66%) had menorrhagia, 6 (4%) had polymenorrhagia, and 15 (10%) had metrorrhagia. Fibroids, hypothyroidism, PCOD, Genital Koch's, adenomyosis, puberty menorrhagia, and simple hyperplasia without atypia were the causes of these outcomes. **Conclusion:** The study demonstrated that puberty menorrhagia, hypothyroidism, PCOD, fibroid, endometrial polyp, hyperplasia without atypia, adenomyosis are the major causes of AUB in adolescent, reproductive and perimenopausal women.

Keywords: Uterine bleeding, Menorrhagia, Perimenopausal women, Hypothyroid, Adenomyosis.

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Introduction

The term "abnormal uterine bleeding" (AUB) refers to bleeding from the uterine corpus that is out of the ordinary in terms of frequency, volume, regularity, or length. Half of adolescent girls' gynecologic issues are caused by AUB.^[1,2] Additionally, given that, adolescence is a period of irregular menstrual cycles, some teenagers may not be aware that their bleeding problems are abnormal. Heavily bleeding during menstruation (HMB) is the most typical clinical manifestation of AUB. AUB due to causes not related to uterine structural abnormalities was formerly known as "dysfunctional uterine bleeding".^[3,4] Heavily bleeding during menstruation (HMB) is the most typical clinical manifestation of AUB. AUB is not an illness; it is a symptom. It comes in a variety of types that fall into two basic types. These classifications result from biologic factors, such as abnormal uterine bleeding like anovulatory and ovulatory.^[4,5] Acute AUB is a bleeding episode in a woman of reproductive age who is not pregnant that is severe enough to call for emergency medical attention in order to stop future blood loss. Chronic AUB is defined as bleeding that has been present for the majority of the previous six months and is abnormal in duration, volume, and/or frequency. Earlier, dysfunctional uterine bleeding was the term used to describe increased menstrual flow, length, or amount without a structural cause (DUB).^[5,6] One of the most frequent

concerns patients bring to the OPD is AUB. Cycles become erratic throughout the menopausal transition and the transition from puberty to maturity. These days, irregularities in the menstrual cycle are prevalent. The urgent need is to improve the health of women who are experiencing irregularities that cause other health issues.^[6,7] It indicates that general practitioners are slow to send patients to gynecologists and fail to recognize a woman's need for therapy. When compared to women who have no monthly symptoms, women who report one or more menstrual symptoms have considerably worse health status and quality of life.^[7,8]

Material and Methods

Study consisted of women in age group of 13-45 years. They were all divided into adolescent, reproductive and perimenopausal age groups. All subjects gave their informed consent after being informed of the study's nature and objectives. Every subject underwent a thorough physical and systematic examination, except for single women, who underwent a physical and P/A. UPT, biochemical hormonal assay, Mantoux test, transabdominal and TVS ultrasonography, laparoscopy, hysteroscopy, and endometrial biopsy were used to rule out the various causes of AUB.^[8]

Inclusion Criteria:

1. Female within 13–45-year age.
2. Heavy menstrual bleeding, frequent menstrual bleeding, prolonged bleeding, infrequent bleeding.

Exclusion Criteria:

1. Female below or under age 13- 45 years
2. Pregnant females.
3. Female with normal menstrual cycles
4. Under influence of drugs like anticoagulant, glucocorticoids
5. Females with pelvic inflammatory disease and IUDs.

Results

Table 1: Distribution of Condition in Different Age Group

Groups/ Conditions	Distribution (N)	Percentage %
1. Adolescent Age Groups		
Hypothyroid	16	32%
Pcod	04	8%
Puberty Menorrhagia-	30	60%
2. Reproductive Age Groups		
Pcod	11	22%
Hypothyroid	10	20%
Dub	09	18%
Fibroid Uterus	08	16%
Endometrial Polyp	05	10%
Simple Hyperplasia Without Atypia	04	8%
Adenomyosis Uterus	02	4%
Genital Kochs	01	2%
3. Perimenopausal Age Groups		
Fibroid Uterus	20	40%
Simple Hyperplasia Without Atypia	12	24%
Adenomyosis Uterus	07	14%
Endometrial Polyp	06	12%

Hypothyroid	03	6%
	Total =150	100%

The obtained condition in adolescent group was Hypothyroid-16(32%), PCOD04 (8%), Pubertymenorrhagia-30(60%) in patients. Distribution in reproductive age groups was PCOD- 11(22%), Hypothyroid-10(20%), DUB-09(18%), Fibroid Uterus- 8(16%), Endometrial polyp- 5(10%), Simple hyperplasia without atypia-4(8%), Adenomyosis uterus - 2(4%), TB-1(2%) in study population. While, Fibroid uterus-20(40%), Simple hyperplasia without atypia -12 (24%), Adenomyosis uterus-7(14%), Endometrial polyp 6(12%), Hypothyroid 3(6%) in distribution in perimenopausal age groups.

Table 2: Distribution of causes of AUB in study population

Causes of AUB	Distribution (N)	Percentage (%)
Menorrhagia	99	66%
Metorrhagia	15	10%
Oligo menorrhoea	30	20%
Polymenorrhoea	6	4%
	Total = 150	100%

Discussion

Women of all ages are affected by abnormal uterine bleeding, which has a negative influence on quality of life in terms of health.^[8,9] In study all three groups were equal distributed with 50 females each, of which minimum causes (3) for AUB was found in adolescent group and maximum causes (7) for AUB were in reproductive group and 5 in perimenopausal group. In a study by Dijkhuizen et al, 36% of the patients' ultrasonography results indicated no abnormalities, however in our investigation, simple hyperplasia without atypia (8%), endometrial hyperplasia (48%) and atrophic endometrium (49%) were found. 15% of patients in the study had fibroid uteri, but in our study, 16% of the reproductive group and 40% of the perimenopausal group had fibroid uteri.^[9,10]

Kristen et al study's produced different findings. While only 17.5% of individuals in our sample had mild anaemia, 34.2% of patients in his study did. In addition, although 24% of patients in the Shah JV et al trial had moderate or severe anaemia,^[10,11] 7.2% of his study participants did. This gap may be attributable to the fact that our study was done in a rural setting, where persons from lower socioeconomic classes, most of whom have only completed their primary education, are present.

Out of all the causes, 25 (12.5%) women underwent hysterectomy for DUB, according to Anderson et al. and Frazer et al. This was primarily observed in women who were perimenopausal.^[11,12] Adenomyosis (14%), fibroid (40%), and all other causes were observed in the reproductive group. The study also revealed that DUB persistence was 18% in the reproductive group. In our study, the teen group's diagnosed causes included hypothyroidism (32%), PCOD (8%), and puberty menorrhagia (60%). PCOD (22%),

Hypothyroid (20%), DUB (18%), Fibroid Uterus (16%), Endometrial Polyp (10%), Simple Hyperplasia without Atypia (8%), Adenomyosis Uterus (4%), and Tuberculosis (TB) (2%), were all distributed among reproductive age groups.

While in perimenopausal age groups, the prevalence of uterine fibroids is 40%, simple hyperplasia without atypia is 24%, adenomyosis is 14%, endometrial polyps are 12%, and hypothyroidism is 6%.^[12] The investigated completed with 30 (20%) of the 150 patients having oligomenorrhoea, 99 (66%) with menorrhagia, 6 (4%) with polymenorrhagia, and 15 (10%) metorrhagia.^[12] Such study must be conducted with consideration of the available data, current medical practice, and the entirety of clinical practice.

Conclusion

In this study, it was determined that pubertal menorrhagia, hypothyroidism, and PCOD are the three main factors that contribute to AUB in adolescents. PCOD is the most common condition in women of reproductive age, followed by fibroid, endometrial polyp, simple hyperplasia without atypia, and adenomyosis. Adenomyosis is followed by simple hyperplasia without atypia in the perimenopausal age group after fibroid.

The study's findings also showed that AUB was highly prevalent in our population, which is consistent with findings in other countries' literature.

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