ANALYSIS OF RISK FACTORS AND TREATMENT OF AUB IN A TERTIARY CARE HOSPITAL – A PROSPECTIVE OBSERVATIONAL STUDY

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ABSTRACT

Introduction: Abnormal uterine bleeding (AUB) is a common gynaecological disorder affecting women of reproductive age, causing significant morbidity and impacting the quality of life. This prospective study aimed to analyze the risk factors and treatment outcomes of AUB in the Coimbatore local area.

Methodology: A prospective study was conducted in the Department of Obstetrics and Gynecology (OBG) at the Karpagam College of Pharmacy for 6 months. The study contains a sample size of 60 patients. The data collected were the menstrual history, obstetric history, medication history, medical history and current treatment. These data were collected from the patients itself and the case sheets.

Result: A total of 60 patients with Abnormal Uterine Bleeding (AUB) were enrolled in the study, which identified significant risk factors including Age, Multiparity, Menstrual irregularity, History of sterilization, Age at first pregnancy, and History of c-section. The majority of patients received pharmacological treatment, primarily antifibrinolytics in combination with NSAIDs and hormonal therapy, to manage heavy bleeding and hormonal imbalance. In 31.67% of cases, hysterectomy was performed as a last resort for AUB management.

Conclusion: Our findings highlight the importance of personalized patient education, enabling individuals to understand their unique risk factors, take proactive preventive measures, and seek timely medical intervention. We recommend a graduated treatment approach, commencing with pharmacological interventions and progressing to surgical options as a last resort. Moreover, patient-centered care is vital, involving tailored treatment strategies that cater to each individual's distinct needs and preferences.

Keywords: Abnormal Uterine Bleeding, Multiparity, Transfusion, Antifibrinolytics.

Introduction;

Abnormal Uterine Bleeding (AUB) can be described as any deviation from the typical menstrual cycle. This includes alterations in the regularity and frequency of periods, the duration of bleeding, the amount of blood loss or even bleeding between cycles. AUB affects 3% to 30% of reproductive-aged women worldwide, with a higher incidence during the menarche and perimenopause stages. However, when including irregular and inter-menstrual bleeding in addition to HMB, the prevalence increases to 35% or more. The incidence of menorrhagia was 25%, metrorrhagia was 29%, oligomenorrhoea was 15% and inter-menstrual bleeding was 17%. Women with menorrhagia (heavy menstrual bleeding) were nearly twice as likely to experience dysmenorrhoea (painful periods) as those with normal menstrual cycles, with an incidence rate 1.92 times higher.

Menstrual shedding of the endometrium occurs in a disorganized manner, characterized by patchy loss of the superficial functionalis layer. Focal regions of epithelial denudation, stromal degradation, and vascular injury cause localized bleeding, while other areas simultaneously undergo tissue repair and regeneration. Persistent HMB may be associated with abnormalities in the endometrial progenitor zone of the stratum basal is, resulting in an abnormal stratum functionalis and impaired tissue regeneration. The stratum basalis layer of the endometrium preserves tissue structure and function during the menstrual shedding of the stratum functionalis. Angiogenesis occurs in the basalis layer during menstruation, and in the stratum functionalis and subepithelial capillary plexus during the proliferative and early secretory phases.

NSAIDs (nonsteroidal anti-inflammatory drugs) reduce menstrual bleeding by inhibiting the production of prostacyclin. They are particularly effective in treating ovulatory dysfunctional uterine bleeding (DUB). Studies have shown that NSAIDs decrease bleeding by 25-35% compared to placebos, although they are less effective than other treatments like tranexamic acid, danazoland IUD

Aim and Objective

Aim

To assess the risk factors associated with AUB and to analyze the treatment patterns of AUB.

Objective

1. To assess the risk factors associated with AUB and to analyze the treatment patterns of AUB.
2. To determine the prevalence rate of types of AUB.

Methodology

Study Design; Prospective Observational Study

Study Site; The study was conducted at the Department of Obstetrics and Gynecology, Karpagam Faculty of Medical Science and Research, Coimbatore.

Study Duration ; The study was carried out for period of 6 months.

Study Tools ; Data Collection form, Questionnaire.

Sample Size ; The sample size used in the study was 60 subject population.

Study Criteria

Inclusion criteria

1. Patients with the age between 18-50 years
2. Patients diagnosed with abnormal uterine bleeding
3. Patients with or without co-morbidities.

Exclusion criteria

1. Women with unknown menarche, and those who were pregnant, breastfeeding,
2. Patient with postmenopausal or post-hysterectomy / bilateral oophorectomy status
3. Patients who not interested to give informed consent form
4. Patients with psychiatric, neurological, or intellectual disabilities

Ethical Approval: The study was approved by the Independent Ethics Committee (IEC), Ref No: IHEC/331/KCOP/03/2024 at Karpagam Faculty of Medical Science and Research, Coimbatore.

Result

Total of 60 study patients, majority of the study population 32 (53.4%), were under the age group of 36-45 years, followed by 20 (33.3%) patients aged 46-50 years. The smallest groups were those aged 26-35 years, comprising 5 (8.3%) patients, and 18-25 years, comprising 3 (5%). It was given in figure-1.

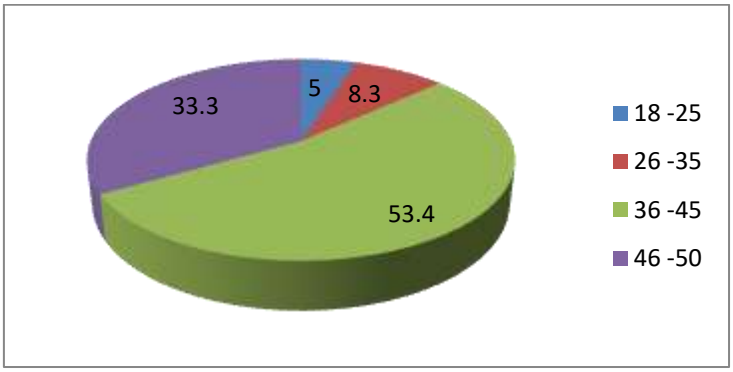

Figure 1: Age-Based Distribution of study patients

The BMI measurements, of 35 (58.3%) were in the normal range between 18-24.9, and only 2 (3.3%) study population were underweight. Of the remaining study subjects in our study, 15 (25%) were overweight, 4 (6.7%) were obese, and 4 (6.7%) had extremely obese, all with BMIs above 25. It was indicated in figure-2

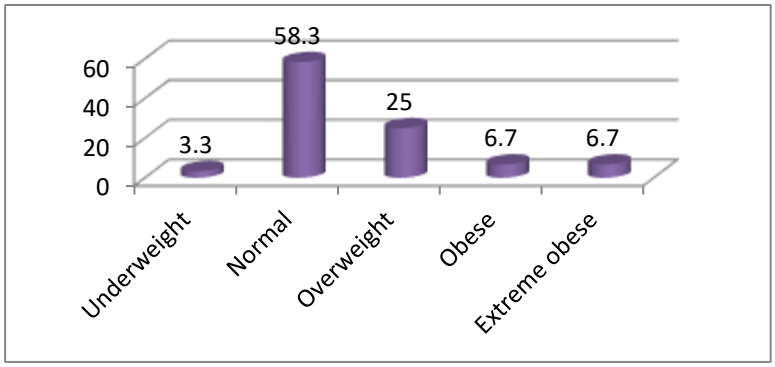

Figure 2: BMI-Based Distribution

Co-morbid conditions of the study patients was measured and found that, 9 (15%) had thyroid disease, 8 (13.3%) had hypertension, and 7 (11.6%) had diabetes. However, the majority 40 (66.67%), had no co-morbidities. It was illustrated in figure-3.

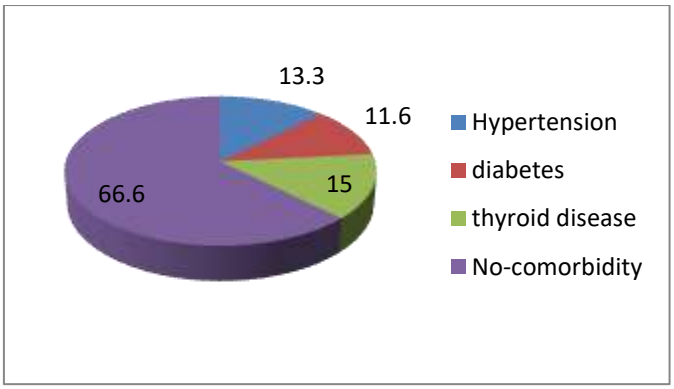

Figure 3: Comorbidity Profile of study Patients

The Parity-Wise Distribution of Patients was assessed and found that, the majority of patient 83.3% (n=50) were multiparous, while 6.7% (n=4) were primiparous, and 10% (n=6) were nulliparous. It was depicted in figure-4.

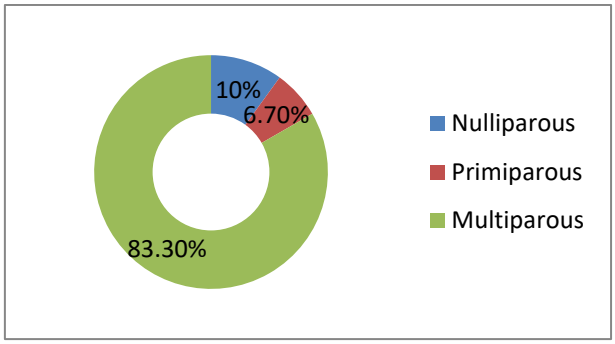

Figure 4: Parity-Wise Distribution of study Patients

The study assess the distribution by Number of Days of Bleeding was found that, 45% of the subject population experienced 7-15 days of bleeding, while 21.66% had 5-6 days of heavy bleeding. The study indicates, 40 (66.7%) reported complaints of clots, while 20 (33.3%) did not have any clot-related issues and 9 (15%) reported complaints of white discharge per vaginum, while 51(85%) did not experience any symptoms of white discharge. Which was given in table-1.

Table 1: Distribution by Number of Days of Bleeding

Parameters	**Number of patients** (n=60)	**Percentage of patients** (%)
No. of days of bleeding		
1 -2	1	1.6
3 -4	10	16.6
5 -6	13	21.6
7 -15	27	45
>15	9	14.9
Presence of blood clot		
Yes	40	66.7
No	20	33.3

White discharge status		
Yes	9	15
No	51	85

The study measure the usage of napkins during Regular Menstrual Cycle and found that, 47(78.3%) women uses 3-4 pads, 8(13%) uses 1-2 patients and around 5(8.33%) use 5-6 pads daily. In heavy menstrual cycle, 25(41.6%) patients use >7 pads, 22(36.6%) used 5-6 pads, 7(11.6%) used 1-2 pads and only 6 (10%) were using 3-4 pads.it was shown in figure-5

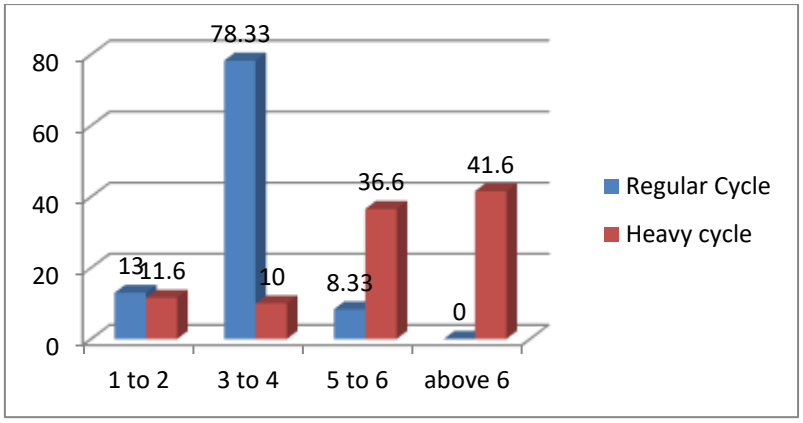

Figure 5: Distribution by Number of Pads Used in RMC and HMB

The study assess the management of AUB, 19 (31.67%) underwent surgical treatment, while 41 (68.33%) received medicinal treatment. The drug therapy indicates 31(75.61%) were prescribed with antifibrinolytics, 23 (56.09%) were given with NSAID, 26 (63.41%) were prescribed with hormonal drugs and 4 (9.75%) with other drugs. These drugs were given either as monotherapy or in combination with other classes of drugs. The transfusion therapy for patients of AUB with Anemia indicates the majority 27 (81.8%) required blood transfusion and 6 (18.19%) did not receive transfusion. It was indicated in fugure-6.

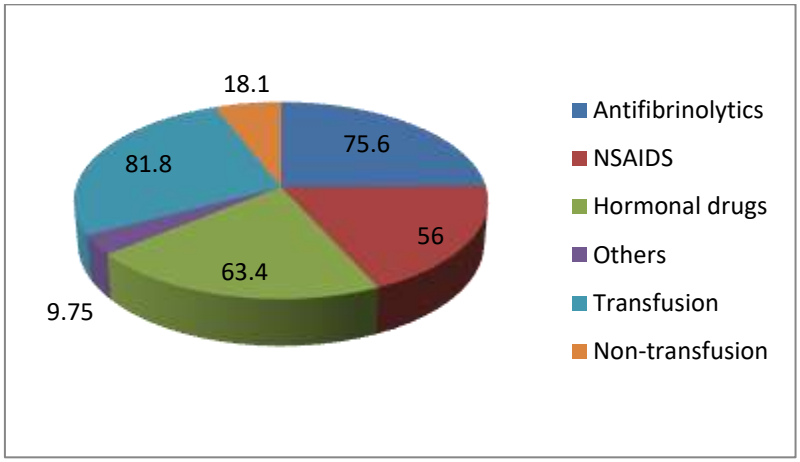

Figure 6: Drug and Transfusion therapy for patients of AUB with Anemia

Conclusion

We concluded that educating patients about their risk factors is crucial, promoting awareness and empowering them to take preventive measures or seek early medical attention. A stepwise approach to treatment is effective, starting with pharmacological management and

progressing to surgical management as a final option. Patient-centred care is essential, tailoring treatment to individual needs and preferences.

Conflicts of interest; None

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