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ABSTRACT:

Dysfunctional uterine bleeding (DUB) is defined as abnormal uterine bleeding caused by a hormonal mechanism. Dysfunctional uterine bleeding (DUB), the most common cause of abnormal uterine bleeding, occurs most often in women > 45 (> 50% of cases) and in adolescents (20% of cases). The Present Research work related to evaluated the impact in the quality of life of DUB. In this study, total 130 patients were included. method involves prospective analysis of quality of life in women with DUB. The study is carried out by the collection and documentation of general information of the patient including Personal history, Family background, Clinical findings, Investigations and Medical illness associated with DUB. Further quality of life is documented using SF-12 questionnaire designed to assess the impact of DUB and their complication. The results the MCS improves significantly after counseling. PCS and MCS has been significantly improved in Post menopausal women. MCS is improved Pre menopausal women.

KEYWORDS: DUB, SF-12 questionnaire, PCS – Physical Component summery, MCS – Mental Component summery

INTRODUCTION:

Dysfunctional uterine bleeding (DUB) is defined as abnormal uterine bleeding caused by a hormonal mechanism.[1]It is defined as an excessively heavy, prolonged or frequent bleeding of uterine origin that is not due to pregnancy or any recognisable pelvic or systemic disease.[2]

Any alteration of the normal menstrual cycle mechanisms can lead to steady-state estrogen production and DUB.[1] Dysfunctional uterine bleeding is the diagnosis in 40–60% of women with excessive menstrual bleeding which is defined as greater than 80 mL blood loss (normal menstrual loss <80 mL).[2] It is the major cause of heavy menstrual bleeding and impacts on women's health both medically and socially, causing problems such as iron deficiency anaemia. Dysfunctional uterine bleeding is the commonest cause of iron deficiency in the developed world and of chronic illness in the developing world.[3,4]

THE NORMAL MENSTRUAL CYCLE

The normal menstrual cycle occurs at regular intervals of 24–35 days. The average duration of flow is 4–6 days but can be as few as 2 and as many as 7 days [5,6]. A flow of longer than 7 days deserves evaluation [7,8] The average blood loss during one menses is approximately 30 mL.[9] A flow of 80 mL or more can lead to anemia. However, it is not necessary to measure menstrual flow; a patient's perception of abnormal or excessive menses deserves evaluation and treatment. Physiologically, a flow of more than 80 mL deserves evaluation.

Normal menstruation results from progesterone withdrawal from estrogen-primed endometrium. Menstrual cycle resulting in ovulation is the result of a complex interaction between the various organs. Dysfunction at any level can interfere with ovulation and the menstrual cycle.

Figure.1

Pathway of action of hormones for normal menstrual function

DEFINITIONS OF ABNORMAL BLEEDING

The following are definitions of abnormal bleeding:

1. Menorrahagia: Excessive and prolonged uterine bleeding at regular intervals
2. Metrorrhagia: Irregular, intermenstrual bleeding
3. Menometrorrhagia: Heavy, prolonged, irregular bleeding at frequent, irregular intervals
4. Polymenorrhea: Frequent, regular episodes of uterine bleeding at intervals of less than 21 days
5. Oligomenorrhea: Irregular bleeding occurring at prolonged intervals of greater than 35 days
6. Amenorrhea: Absence of uterine bleeding

CATEGORIES OF DYSFUNCTIONAL UTERINE BLEEDING

Dysfunctional uterine bleeding can be separated into four categories:

1. Estrogen withdrawal bleeding,

2. Estrogen breakthrough bleeding,
3. Progesterone withdrawal bleeding, and
4. Progesterone breakthrough bleeding.

CAUSES OF DUB:

The causes of dysfunctional uterine is as follows: [10]

Endocrine

- ❖ Cushing's Disease
- ❖ Immature Hypothalamin-Pituitary Axis
- ❖ Hyperprolacinemia
- ❖ Hypothyroidism
- ❖ Menopause
- ❖ Obesity
- ❖ Polycystic Ovary Disease
- ❖ Premature Ovarian Failure

Stuctural Lesions

- ❖ Adenomyosis
- ❖ Coagulopathies
- ❖ Dysplastic Or Malignant Lesion Of the Cervix Or Vagina
- ❖ Endometrial Cancer
- ❖ Uterine Or Cervical Polyps
- ❖ Trauma

Medications

- ❖ Hormonal Agents
- ❖ Low-Dose Oral Contraceptive Pills
- ❖ Nonprogestin-Containing Iuds
- ❖ Nonsteroidal Anti-Inflammatory Drugs
- ❖ Progestin-OnlyContraceptive(The "Mini Pill")
- ❖ Tamoxifen and Warfarin

Infections

- ❖ Chlamydia
- ❖ Gonorrhea

Pregnancy

- ❖ Ectopic Pregnancy
- ❖ Incomplete Abortion
- ❖ Pregnancy Complications

SYMPTOMS OF DUB [11,12]:

You may have dysfunctional uterine bleeding if you have one or more of the following symptoms

- Menstrual bleeding that occurs more often than every 21 days or farther apart than 35 days (a normal menstrual cycle is 24 to 35 days long)
- Menstrual bleeding that lasts longer than 7 days (normally 4 to 6 days)
- Blood loss of more than 80 mL each menstrual cycle (normally about 30 mL). If you are passing large clots or soaking a large pad per hour for 8 hours, your bleeding is considered heavy[13].

DUB is excessive uterine bleeding due to longer duration, or increased amount, of uterine blood loss. This is often associated with iron deficiency anaemia due to depletion of body iron stores.

METRIALS AND METHODS:

STUDY SITE:

The study entitled **"**The Prospective Study On The Assessment Of Quality Of Life In Dysfunction Uterine Bleeding (Dub) Women**"** was carried out in a 300 bedded tertiary care h[illegible] Located At Ayanavaram, Chennai. The hospital is unique and well known f[illegible] areas of the state. The institution excels in diverse specialties like general [illegible], pediatrics and neonatology, orthopedics, psychiatry, geriatrics, cardiolo[illegible]ntistry. The hospital has well set pharmacy and drug information centre.

DEPARTMENT SELECTED

The department selected for the study was Gynecology. The reason for selecting this department was that previous studies revealed a better scope for the study.

PHASE I: (JULY 2015 - OCT 2015)

CONSENT FROM HOSPITAL AUTHORITY[14,15]

It was a custom that every project work carried out in the hospital by the PHARM.D has to be approved by the dean of the hospital and should be informed to all physicians, surgeons and other health care professionals of the hospital. So a protocol of the study which includes the objective, methodology was submitted to the dean of the study hospital. The study was conducted with the expert guidance of senior and junior physicians of the department selected for the study in the hospital. The author was permitted to utilize the hospital facilities to make a follow up prescription, in selected departments. All the

healthcare professionals were well informed through dean's official circular.

STUDY DESIGN

This study was designed to be a prospective interventional study carried over a period of 9 months. Patient data will be collected and documented. The collected data will be entered into a data collection form in excel to be analyzed later.

DATA ENTRY FORM (PROFORMA)

A separate data entry form for incorporating patient details was also designed. The format contains the details such as Name, Age, Height, Weight, IP/OP number, D.O.A, D.O.D, Diagnosis, Drug chart with R.O.A, dose, duration of therapy.

PROFORMA 1

Patient informed consent form.

PROFORMA 2

SF – 12 Questionnaire – It includes 12 questionnaires that will be asked to the patient during their treatment. Patient awareness will be created by means of a better patient education.

STATISTICAL ANALYSIS

The values obtained were averaged for analysis. The collected data were analyzed by using Mean, Standard deviation and Student t test.

PHASE II: (SEP 2015- FEB 2016)

DATA COLLECTION

INCLUSION CRITERIA:

- Provision of written informed consent.
- Patients who are diagnosed with DUB of any stage.

EXCLUSION CRITERIA:

- Mentally incompetent patients.
- Pregnancy and lactating women.
- Patients who are not willing to participate.

WARD ROUND PARTICIPATION:

During data collection patients care taker were informed about the study using patient information format. A regular ward round into the study department was carried out. The medical charts of the patients were screened for appropriateness in all possible ways. Patient demographics like age, weight, date of admission, length of stay, treatment were entered into the specially designed data entry form.

PHASE III: (MAR 2016 - MAY 2016)

DATA COLLECTION CONTINUED

The collection of data was continued in this phase also in the same way as explained in PHASE II

DATA ANALYSIS

The values obtained were averaged for analysis and was categorized based on the parameter. The collected data were analyzed using Microsoft Office Excel 2010 program. Patient medical history also been categorized. Paired T Test was used to compare the counseling between Pre-Menopausal women and Post-Menopausal women. 16,17

REPORT SUBMISSION

The collected data were maintained confidentially according to ıta collected were documented and analyzed for the study conducted and the

DISCUSSION:

This study was designed to find out the quality of life among Dysfunctional Uterine Bleeding women and to create awareness about the disease.

In this study, total 130 students were included. The female patients who were all suffering from Dysfunctional Uterine Bleeding are included in this study. It is an interventional study conducted in Dysfunctional Uterine Bleeding patients. By using proforma, the patient's demographics, patient medical history, lab investigations and other reports were monitored. Assessment is done by using SF-12 Questionnaire, which consists of 12 questions about the physical and mental components summaries respectively. Patient counseling was provided at the initial level and the patient knowledge about Dysfunctional Uterine Bleeding cause, risk, management, treatment and life style modifications were assessed during the

Dysfunctional Uterine Bleeding cause, risk, management, treatment and life style modifications were assessed during the Pre counseling phase and Post counseling phase.

- Age wise distribution presented in Table indicates that the highest number (30.7%) of patients belonged to age group between the age of 18-25 years, followed by 18-25 years (27.6%), followed by 35-45 years (22.3%), followed by 45-55 years (10.7%) and followed by above 55 years (8.4%), it indicates that more number of people in the age group 18-35 years is affected with Dysfunctional Uterine Bleeding compared to other age groups.

- Out of selected 130 female patients, 81 patients (62.3%) were married, and 49 patients (37.7%) were unmarried, the study confirms that married women's are more affected with Dysfunctional Uterine Bleeding than unmarried.

- In our study we observed that 36 patients (27.7%) were not having child, and patients having one child were 29 patients (22.3%), patients having two children were 41 patients (31.53%) and patients having more than two children were 24 patients (18.47%).

- Among the study population, 3 patients (2.3%) were underweight, 47 patients (36.15%) were in normal weight, 59 patients (45.39%) were over weight and 21 patients (16.15%) are obese patients.

- It was observed that 76 patients (58.46%%) were Pre menopausal women and 54 patients (41.53%) were Post menopausal, and thus from the results it is concluded that Pre menopausal women were more affected than Post menopausal women.

- Out of selected patients, 38 patients (29.23%) were having Diabetes, 21 patients (16.15%) were having hypothyroidism, 34 patients (26.15%) were having Hypertension, 47 patients (36.15%) were having anemia, and 45 patients (34.62%) were having fibroid uterus and 21 patients (16.15%) were having obesity.

- Our study demonstrates that 21 patients (16.15%) were qualified with 10^{th} STD, 39 patients (30%) were qualified with 12^{th} STD, 35 patients (26.92%) were qualified with college degree, 12 patients (9.23%) are studying currently and 23 patients (17.69%) are uneducated.

- We also categorized the patients of DUB on the basis of their qualification, among 130 patients, 39 patients (30%) were government employees, 23 patients (17.69%) were tailors, 14 patients (10.77%) were students, 43 patients (33.08%) were house wives, and 11 patients (8.46%) were daily labors.

- Out of 130 selected female patients, 6 patients (30%) health was in very good condition, 52 patients (40%) health was in good condition, 59 patients (45.38%) health condition was fair and 13 patients (10%) health was in poor condition.

- The results indicate that PCS does not improve significantly but the MCS improves significantly after counseling.

- When comparing the PCS and MCS in Pre menopausal and post menopausal women it shows that there is no variation in Pre menopausal and Post menopausal women.

- PCS and MCS has been significantly improved in Post menopausal women.

- MCS is improved Pre menopausal women.

CONCLUSION:

Excessive menstrual blood loss is a common reason for wom ding) is the major disease factor.

DUB is a common problem in women in 20–50 years age group. Ovulation DUB occurs in about 10% of women and about 90% of cases are anovulatory DUB.
The Mean and SEM changes of physical component summary (PCS) and mental component summary (MCS) were found using SF-12 questionnaire.

The Mean and SEM changes of PCS and MCS were 36.07 ± 1.04 and 43.12 ± 2.01, 29.14 ± 1.82 and 41.91 ± 1.4 before counseling and after counseling.

The Physical component and Mental component summaries showed statistically significant difference determined by Student t-Test.

Hence, the study concludes that Quality of Life was improved in DUB (Dysfunctional Uterine Bleeding) patients after the Patient counseling.

ABBREVIATIONS:

DUB	Dysfunctional Uterine Bleeding
AUB	Abnormal Uterine Bleeding
BMI	Body Mass Index
DM	Diabetes Mellitus
HTN	Hypertension
SD	Standard deviation
SEM	Standard Error Mean
LNG-IUS	Levonorgestrel-releasing intrauterine system
CBC	Complete blood count
NSAID	Non-steroidal anti-inflammatory drugs
OCP	Oral contraceptive pill
IUS	Intrauterine system
CHC	Combined hormonal contraceptives
cOCP	Combined oral contraceptive pill
IV	Intravenous

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