

Medical and Surgical Management with their Outcomes among Women Presented with Dysfunctional Uterine Bleeding

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Abstract:

Background: Management of dysfunctional uterine bleeding is very crucial among the women. **Objective:** The purpose of the present study was to see the medical and surgical management with their outcomes among women presented with dysfunctional uterine bleeding. **Methodology:** This prospective cohort study was carried in the Department of Obstetrics & Gynecology at Shaheed Suhrawardy Medical College Hospital, Sher-E-Bangla Nagar, Dhaka, Bangladesh and Dhaka Medical college Hospital, Dhaka, Bangladesh. This present study was conducted on the patients presented with dysfunctional uterine bleeding in the age group of 16 years to 55 years during the period of 12 months from July 2005 to June 2006. **Result:** A total number of 50 cases were studied and the mean age was 40.25 years. Thirty-Six (72.0%) patients had hysterectomy. Among them 16(44.45%) cases had direct hysterectomy and rest 20(55.55%) patients had hysterectomy either having curettage or medical treatment or both before. Newer LNG-IUCS (progestogen containing IUCD) give better result of all the hormones treatment and it is about 76-100 percent cure rate. Curettage gives immediate good result in hemostasis (83.33%). **Conclusion:** In conclusion, most of the patients are treated with hysterectomy with good outcomes.

Keywords: Dysfunctional Uterine Bleeding; Combined OCP; Synthetic progesterone; Progestogen containing IUCD; Hysterectomy

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Introduction:

Dysfunctional uterine bleeding (DUB) is one of the most common global gynecological problem which embarrasses the patients and the gynecologists even. 10% of outdoor patients in gynecology department present with dysfunctional uterine bleeding (DUB). It affects women of all races and all classes, and although predominantly occurs in the extremes of menstrual life (postmenarcheal and perimenopausal) may occur at any age. It has been poorly researched in the past, primarily because of difficulties in trying to accurately measure blood loss and response to treatment.

Dysfunctional uterine hemorrhage is a diagnosis of exclusion. It is abnormal bleeding of endometrial origin without any causative factor like pregnancy, infection, neoplasm or systemic disorders such as blood dyscrasias or exogenous hormone administration. It is often referred to as "Functional hemorrhage" and by some authors as "Dysfunctional hemorrhage". The latter is justified because nearly all the systemic causes probably act by upsetting endocrine function. There is a lack of agreement regarding the definition of dysfunctional uterine bleeding among the gynecologists. Nonetheless a general agreement has been

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established on the two points. Firstly, to exclude the bleeding from organic disorders of the reproductive tract in order that only entity may qualify as dysfunctional uterine bleeding and secondly- perhaps endocrinologic disorders have a significant relationship to dysfunctional hemorrhage. Occasionally patient with DUB may have organic lesion of the reproductive tract but its relationship to the bleeding may be either equivocal or coincidental (myometa or polyp). Though both the varieties - ovular and anovular can occurs in case of adolescent and perimenopausal age group. In adolescent girl abnormal uterine bleeding is due to immaturity of the hypothalamo pituitary - ovarian axis. As a girl enter into the puberty, gonadotrophin level increases, leading to development of ovarian follicles that produces estrogen. Estrogen stimulates growth of the endometrium without development of the progesterone dominated secretory phase. As a result, endometrial lining becomes thick and vascular. Estrogen levels eventually fall spontaneously, and the resultant bleeding is heavy and prolonged. In some patients, the friable endometrium may break down intermittently, causing irregular spotting. In peri menopausal women, as the ovary ages, it becomes less sensitive to follicle stimulating hormone (FSH) and luteinizing hormone (LH), producing less estrogen despite normal-to-elevated levels of gonadotrophins. The purpose of the present study was to see the medical and surgical management with their outcomes among women presented with dysfunctional uterine bleeding.

Methodology:

This prospective cohort study was carried in the Department of Obstetrics & Gynaecology at Shaheed Suhrawardy Medical College Hospital, Sher-E-Bangla Nagar, Dhaka, Bangladesh and Dhaka Medical college Hospital, Dhaka, Bangladesh during the period of 12 months from July 2005 to June 2006. The study population comprised of women who attended the hospitals with the primary diagnosis of dysfunctional uterine bleeding (DUB). Although patients were included in this study with the age ranging from 16

years to 55 years. The diagnosis of DUB of this study was made on the basis of history & lack of any pelvic pathology to account for the bleeding and endometrial curettage when needed and possible. For the collection of date in this study, a data collection sheet was prepared which was pretested. To see the effect of medical treatment and curettage patients were routinely advice to come to follow up at 1, 2, 3 and 6 months after the starting of treatment. On the basis of data collected through the above-mentioned procedures, data of each patient was recorded systematically. These data were then analyzed statistically in SPSS version 22.0.

Result:

During this study period, 65 patients were seen with the primary diagnosis of dysfunctional uterine bleeding (DUB). Fifteen of these patients, however, were subsequently found to have organic pathologic conditions and were excluded from this series. The remaining 50 cases, thus constitute the basis of this study. Age distribution was difficult to establish because this is a small series of 50 patients limited to hospital admitted cases only, where teenage girls with DUB are usually treated in outpatient and are not admitted into hospital. So, they were excluded from this study although they make a significant contribution to cases of DUB. On the other hand, most perimenopausal bleeding were admitted for treatment even though menstrual disturbances were minor. Here, age ranged from 16 to 50 years, with average of 40.25 years (Table 1).

Table 1: Age Distribution of the Patients (n = 50)

Age Group	Frequency	Percent
16 to 20 Years	1	2.0
21 to 30 Years	3	6.0
31 to 40 Years	12	24.0
41 to 50 Years	32	64.0
More Than 50 Years	2	4.0
Total	50	100.0

Fourteen patients were advised for medical treatment. They were of young, low fertility and not previously treated. Eight patients were advised synthetic

progesterone treatment. The dose schedule was as follows 30 mg/day for 7 days and 15 mg/day for 21 days. Usually, bleeding stopped within 3-7 days of starting the drug and withdrawal bleeding occurred 2 to 4 days after stopping the drug. Six patients had control cycle after 3-6 months regimen. Two patients had control bleeding when taking drug but started to bleed when drug was discontinued. Two patients were symptom free only for 20 days. Two patients did not come to follow up. Four patients were advised to continue combined oral contraceptive as they were already taking pills and their bleeding were under control. Three patients were symptom-free for 3-6 months and in 2 patients' response was not satisfactory. Two patients were treated by tranexamic acid. Among them 1 patient (66.66%) were symptom-free for 3-6 months and 1 (33.34%) developed spotting. Twenty patients were treated by medical and surgical treatment. They were about the age group of 36-45 years and treated irregularly by hormones. Fifteen patients had control of bleeding for 3-6 months. Five patients had symptom-free only for 15 - 20 days. Sixteen patients were treated directly by hysterectomy. These patients were previously treated by hormones and diagnostic curettage, but not responded. Their families were also completed (Table 2).

Table 2: Mode of Treatment of DUB patients (n = 50)

Mode of Treatment	Frequency	Percent
Medical		
• Synthetic progesterone	8	57.14
• Combined OCP	4	28.57
• Tranexamic acid	2	14.28
Surgical		
• Medical & curettage followed by Hysterectomy	20	55.55
• Direct hysterectomy	16	44.46

In this study 12 patients were treated by progesterone. The patients were of younger age group and family were not complete, and also, they were not treated previously. Six patients (50%) showed dramatic

response, 2 patients (16.6%) showed moderate response and 2 patients (16.6%) showed poor response. Two patients did not come for follow up. Five patients were advised by combined oral contraceptive pill as they were already taking pill and their bleeding were under control. Three (60%) of the patients were symptom free for 3-6 months and 2 (40%) responded but not satisfactorily. Three patients were treated by tranexamic acid. Two (66.66%) were symptom free for 3-6 months -and 1 (33.34%) developed spotting (Table 3).

Table 3: Outcome of Drug Therapy (n = 12)

Therapy Result	Frequency	Percent
Progesterone Therapy		
Dramatic response	6	50.0
Moderate response	2	16.6
Poor response	2	16.6
Combined Pill Therapy		
Responded Satisfactorily	3	60.0
Not Satisfactorily	2	40.0
Antifibrinolytic agent therapy		
Responded	2	66.66
Poor response	1	33.34

Curettage helped these patients in both ways for diagnosis of their conditions and helped in controlling bleeding. Immediate good result means early hemostasis, no bleeding or almost a normal period for one month following curettage. Late good result means, patient remained well for 3-6 months following curettage (Table 4).

Table 4: Result of curettage (n=20)

Outcomes	Frequency	Percent
Immediate result:		
• Good	14	70.0
• Poor	6	30.0
Late result:		
• Good	8	40.0
• Poor	12	60.0

In this study 16 (44.45%) patients had direct hysterectomy as patient did not have compliance about medical therapy and curettage. Bleeding was life threatening so patient underwent hysterectomy. Medical treatment and curettage were followed by hysterectomy was done in 12 (33.33%) patients. Following curettage 04 (11.11%) patients had hysterectomy (Table 5).

Table 5: Distribution of hysterectomy (Surgical treatment)

Type of operation	Frequency	Percent
Hysterectomy	16	44.45
Medical therapy followed by Hysterectomy	04	11.11
Medical treatment + Curettage followed by hysterectomy	12	33.33
Curettage followed by Hysterectomy	04	11.11

Different types of operations were out of 36 patients, 22 (61.11%) patients underwent only abdominal hysterectomy, ovaries were preserved to avoid menopausal symptoms. 9 patients had abdominal hysterectomy with unilateral salpingo-oophorectomy. In 4 cases bilateral salpingo-oophorectomy was done along with abdominal hysterectomy. Only 1 patient underwent laparoscopic assisted vaginal hysterectomy as a part of non-descendent vaginal hysterectomy (Table 6).

Table 6: Different types of operations of dysfunctional uterine bleeding (DUB) patients in present series (n = 36)

Types Of Operation '	Frequency	Percent
Abdominal hysterectomy	22	61.11
Abdominal hysterectomy and unilateral salpingo-oophorectomy	9	25.00
Abdominal hysterectomy and bilateral salpingo-oophorectomy	4	11.11
Laparoscopic assisted vaginal hysterectomy	1	2.77

Discussion:

Clinical presentation of DUB varies with type, and management depends on age, desire for fertility and severity of menorrhagia. Some organic diseases like fibromyoma, adenomyosis and endometriosis may be clinically diagnosed as DUB but subsequently laparotomy histology disclose the real diagnosis. In 1000 cases of DUB, Sutherland¹⁷ discovered 14 percent had organic pathology'. In a study by Begum⁴, 20 patients (20%) out of 100 cases showed organic pathology. In a study by Banerjee³, 20 patients (28.5%) out of 70 showed organic pathology. In the present series, 15 patients (23.07%) out of 65 showed organic pathology which is more or less similar to above reference studies. DUB is more prevalent in extremes of reproductive period - adolescence and premenopause or it is also quite frequent in the middle of reproductive age. Begum⁴ in her study on 80 women in 1981 showed predominant age as 3rd to 4th decade. Sutherland (1949) in his study on 861 women showed predominance age was 5th decade. Jacob and Lindley¹⁵ showed a predominance in the 3rd decade. Banerjee³ in a study in 1988 showed predominance age as 41-45 years. In the present series, 32 patients belonged to age group 41-45 years, followed by 12 patients in 31-40 years, and 3 patients belonged to age group 21-30 years.

Majority was similar in a study by Banerjee⁶, Bishop and de Almeida⁶ studied 13 women of ovulatory DUB with 10 mg daily for 7-10 days in luteal phase and failed to show reproducible effect on blood loss. In a study by Begum²⁶ patients were treated by synthetic progesterone. Dose schedule was 30 mg for 1 week, then 20 mg for 1 week and then 10 mg for 1 week. Then the drug was discontinued. Usually bleeding stops in 3-7 days and withdrawal bleeding occurs 2-4 days later'. Some patients were treated with following dose schedule: 10-30 mg/day up to stoppage of bleeding and after withdrawal bleeding 10-20 mg continued regularly of monthly for 3-6 months. 18 patients showed regular normal amount of bleeding up to 3-6 months. In the present series, 8 patients were advised synthetic progesterone.

The dose schedule was 30 mg/day for 21 days in 8 patients (with anovular type of bleeding occurs 2-4 days after stopping the drugs. Six patients had (anovulatory) control cycle after 3-6 months of regimen. Two patients had control bleeding when taking drug but started to bleed when drug was discontinued. Two patients responded poorly and 2 did not come for follow-up. Last four patients were in ovular type bleeding. Progesterone acts better in anovular bleeding. Combined OCP has great advantage of correcting any abnormality of menstrual cycle and of producing regular bleeding as well as reducing the amount of MBL. In a study by Begum, 11 patients were treated by low-dose oral contraceptive cyclically for 3-6 months. Of these patients, 8 resumed normal cyclical bleeding later on, failure occurred in 3 in the form of breakthrough bleeding or irregular bleeding. In a study by Banerjee, 8 patients treated by OCP for 3-6 months in a cyclical bleeding and success rate was 100 percent. In the present series, 4 patients were advised to continue OCP as they were taking pills and their bleeding was under control. Three patients were symptom free for 3-6 months and in 2 patients, response was not satisfactory. Response was more or less similar to first reference. Anti-fibrinolytic agents are potent inhibitor of fibrinolysis and have shown to normalize or reduce MBL in 50 percent cases. It is effective in most types of menorrhagia. Milsum, Bonner and Shephard⁷, respectively treated 75 cases with tranexamic acid, of which 75 percent showed controlled bleeding. In the present series, 3 patients were 75 percent showed controlled bleeding. In the present series, 3 patients were treated by tranexamic acid who were under 30 years of age. Among them, 2 patients were symptom-free for 3-6 months and developed spotting. Response rate was quite satisfactory. A study of 28 patients by Begum⁴ showed that 19 patients (53.5%) remained symptom free 3-6 months and remaining 8 (45.5%) patients had no affection menorrhagia. Banerjee³ showed (50 patients) good results in 34 patients (64%) and poor response in 16 patients (32%). In the present series. 11 patients (55%)

out of 20 were symptom free for 3-6 months by medical management. Forty-five patients were treated by medical and surgical treatment. There were in the age group 36-45 years and previously treated irregularly by hormones. Thirty patients (77.7%) had control of bleeding for 3-6 months. The patients had symptom free for 15-20 days. Five did not come to follow-up. Combined treatment gives a better result.

Hysterectomy is justified when conservative treatment fails and blood loss impair the health of the patient. Presence of endometrial hyperplasia with atypia is an indication of hysterectomy. The decision can be easily taken as the patient approaches 45 years. But even in women at 30, prolonged procrastination with persistence of symptom in spite of hormone therapy is often an indication of hysterectomy especially in those having desired number of children. The alternative in this group is endometrial ablation. In a study by Begum. 50 patients out of 40(62.5%) underwent hysterectomy who had previous curettage but showed no improvement, 33 patients had direct hysterectomy and all of their families were complete. Banerjee in her study showed 33 out of 50 patients (66%) underwent hysterectomy and 21 patients were 40-45 years of age and 11 were above 45 years. In the present series, 36(72%) patients out of 50 had hysterectomy. Among them 16(44.45%) had direct hysterectomy, and the rest 20(55.55%) patients had hysterectomy after failure of medical or surgical treatment. These patients were in the age group 41-50 years, 04 were above 50 years and 08 were 31-40 yrs.

Conclusion:

Treatment of dysfunctional uterine bleeding aims to improve the quality of life in women as to management needs to be individualized for each patient. Therefore, effective medical treatment can defer this intervention in many patients for a long period of time, or appropriate control with medical treatment will remove the need for surgery at all in many individuals.

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