

DETERMINANTS FOR SELECTION OF TREATMENT OPTIONS BY THE PATIENTS SUFFERING FROM MENORRHAGIA

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ABSTRACT

The present study was conducted to find the spectrum of determining factors for selection of treatment options by the patients suffering from menorrhagia. It was a descriptive study and was conducted at departments of Obstetrics & Gynaecology of Combined Military Hospitals of Mangla Cantt and Malir Cantt from May 2004 to October 2004. Total of 100 patients above 35 years of age complaining of menorrhagia were enrolled in the study group. Detailed history specially about age, parity, wish for further child bearing, previous history of medical therapy and contraindications for hormone therapy was taken followed by pelvic examination and pelvic ultrasonography. Treatment options i.e. medical therapy, hormone releasing intrauterine device (Mirena) and surgery in the form of hysterectomy were discussed with the patients. Sixty five (65%) patients opted for surgical treatment in the first place because they had already tried some form of medical therapy and were not ready to accept further medical trial. Twenty seven (27%) patients accepted medical therapy but 12 patients took medical treatment only for 3 months and 04 more patients requested for surgery after another 02 months. Only 08 (8%) patients accepted Mirena as treatment option. In patients of perimenopausal age hysterectomy remains the main treatment option. Major determinants are low socio-economic status, completion of family and poor compliance for medical therapy. It is recommended that patients should be educated and made aware of mortality and morbidity so that compliance for medical therapy is enhanced.

Keywords: Menorrhagia, hysterectomy, medical therapy

INTRODUCTION

Menorrhagia is derived from Greek and literally means, to burst forth monthly (mene the moon and rhegnyimi). While "Heavy Periods" is a subjective complaint, menorrhagia is an objective diagnosis. The mean menstrual blood loss (MBL) is 30-40 ml each month [1].

The objective definition of Menorrhagia is taken as a monthly MBL of 80 ml or greater. Ten % of population exhibits monthly BML greater than 80 ml [2].

Menorrhagia may be the result of

underlying pathology like fibroids, infection, malignancy or bleeding diathesis but in majority of the cases there is no pathology and bleeding is termed as dysfunctional uterine bleeding (DUB) which is the most frequent reason for seeking gynaecological consultation. Of these 10-20 % is associated with an-ovulation, specially at extremes of reproductive life.

In an-ovulatory cycles, there is disturbance of local factors in endometrium synthesis of which is progesterone dependent [3]. There may be a shift in endometrial conversion of endoperoxide from vasoconstrictor prostaglandin (PGF₂ α) to vasodilator prostaglandin (PGE₂) other endometrially derived factors such as

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cytokines, growth factors and endothelins have also been implicated in pathogenesis of DUB [4].

The measurement of MBL can be done by the use of Pictorial Aids [5] or in a semiquantitative manner based on patients's statement of number of sanitary napkins used.

MBL can be measured more accurately by using alkaline-haematin method, where sodium hydroxide is added to soiled sanitary napkins and the resulting alkaline haematin derivative quantified calorimetrically against a known sample of peripheral blood.

Fibroids and infection cause menorrhagia due to changes in vascularity also in addition to imbalance in prostaglandins and derangements in fibrinolytic system. This study was conducted to evaluate the determining factors for selection of treatment options by the patients suffering from menorrhagia in perimenopausal age group.

PATIENTS AND METHODS

This descriptive study was carried out from May 2004 to Oct 2004. Patients of perimenopausal age i.e. 35 years or more suffering from menorrhagia were included in the study. Patients below 35 years of age were excluded from the study and those found having malignancy was also excluded.

Amount of MBL was assessed. Detailed history was taken regarding age, parity, need for contraception, wish to retain uterus, any contraindication for hormone therapy and associated pelvic pathology.

All patients were examined in detail specially pelvic examination was undertaken. Amount of MBL was assessed by asking the number of pads used by the patients, history of passage of clots during menstruation degree of soakage of sanitary pads and clinically by hemoglobin estimation. Basic investigations included blood complete

picture, platelet count, blood sugar estimation and urine examination.

All patients underwent pelvic USG but endometrial sampling was performed in patients who opted for medical therapy and Mirena, and in patients where endometrial thickness was more than 12 mm at ultrasonography. Patients found to have endometrial carcinoma were thus excluded from the study.

All treatment options were discussed according to preset proforma, which included medical therapy, Mirena and surgical treatment in the form of hysterectomy.

Medical treatment included prostaglandin synthetase inhibitors, tranxemic acid, norethestrone acetate and oral contraceptive pills. Patients were also given the option of Mirena.

Merits and demerits of all options were discussed and risks of surgery were also explained.

All the specimens were subjected to histopathological studies. Mostly the clinical diagnosis was confirmed.

STATISTICAL ANALYSIS

The data was entered and analyzed using SPSS ver-10.0. Percentages were calculated to describe all the variables.

RESULTS

Total of 100 patients were enrolled in the study. Sixty five (65%) of patients rejected all sort of medical treatment from the very beginning because of their previous experience, 27 (27%) patients accepted medical trial. Twelve patients took medical treatment only for 3 months and requested for surgery and 04 more patients asked for hysterectomy after another 02 months. Rest of the patients responded well to medical therapy. Eight (8%) patients accepted the option of LNG. 1US Mirena (fig.1). Six

patients belonged to upper middle class and wished to retain their uteri. Two patients were convinced for Mirena because of having medical disorders and were high risk cases for anaesthesia.

Age distribution of the patients is given in (table-1). Mostly the patients (47) belonged to middle social class (table-2).

DISCUSSION

Menorrhagia i.e excessive menstrual bleeding, is a socially embarrassing physically incapacitating condition and has great financial drain. It is not a direct cause of death but it does have a substantial impact on quality of life [6]. DUB is the main cause of menorrhagia in perimenopausal age. It effects 20-30% of women [7] and accounts for 12% of gynaecological referrals [8] Within 5 years of referrals 60% of women will undergo hysterectomy [9], making it the commonest major, gynaecological operation [10]. However, hysterectomy has major socio-economic costs and is not without complications. The recent VALUE Survey of over 35,000 hysterectomies reported the mortality rate of 0.38 per 1000 and serious morbidity rate 3% [11].

In spite of all the risks, our patients opted for hysterectomy. The main determinants were:-

- Age more than 35 years.
- No more child bearing was required.
- Un-acceptance for frequent consultations.
- Disturbance of whole Family and disturbance of household and outdoor activities.
- Low socio-economic status.
- Chronic ill-health due to anaemia.
- Religious concerns.
- Associated pelvic pathology in the form of fibroids, adenexal disease if present, becomes the strong reason for surgery.

Table-1: Age distribution in patients of menorrhage (n-100).

Age in Year	Number	Percentage
35-40	28	28%
40-45	45	45%
45-50	17	17%
50-55	10	10%

Table-2: Social status of patients (n-100)

Lower Middle Class	32	32%
Middle Class	47	47%
Upper Middle Class	21	21%

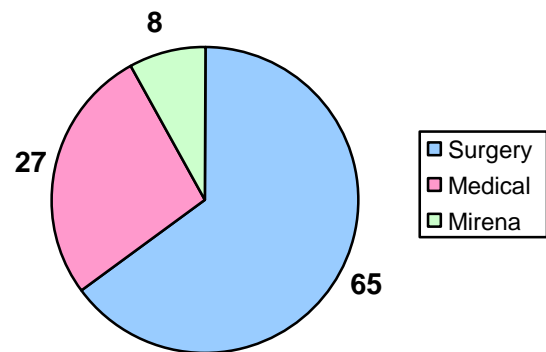


Fig.1: Distribution of management options selected by the patients.

However, there continues to be a need for effective medical therapies for menorrhagia. The medical therapy includes anti fibrinolytics agents, anti prostaglandins and hormone therapy. Anti fibrinolytics and anti prostaglandins reduce MBL by 50% and 25% respectively, are used during bleeding days only so have good compliance.

Low-dose mono-phasic contraceptive pills reduce MBL at least by 50% [12], are more appropriate where contraception is also desired. Progestogens are more effective for anovulatory DUB. In our study only small number of patients opted for medical therapy because majority of them had already tried some sort of medical therapy.

Agents such as danazole and GnRH analogue result in marked reduction in MBL but these are not recommended as first line treatment or long term administration, so were not offered to the patients. Concerns about the "invasiveness of hysterectomy" have lead to the development of minimal

access approaches including endometrial resection/Ablation [13] As this technique is not widely practiced in our set up so was not considered.

While MBL is increased after insertion of inert of copper-containing intrauterine devices, blood loss is reduced if the device is impregnated with a progestogen [14]. LNG 1US (Mirena) delivers 20 micro-gm of levonorgestral to endometrium every 24 hours. It is an excellent device to control menorrhagia and its results are comparable with surgery even [15]. The only draw-back is its initial high cost which limits its availability to women of low socio-economic class. The women who accepted this option in our study belonged to middle social class. As it is the patient who has to bear the whole brunt of cost for Mirena while in case of surgery, the hospital is responsible for cost, so more patients opted for surgical treatment.

CONCLUSION

Definitive surgery remains the main treatment option. Strong determining factors are low socio-economic status, completion of family and poor compliance for medical therapy and perhaps the surgical option as main choice because it is free of cost for the patients in our set up.

RECOMMENDATIONS

Patients need to be more educated and made aware of the benefits of medical therapy through brochures and pamphlets. They should be made aware of morbidity and mortality related to major surgery as a first line therapy at primary health centres. This information may be imparted at this level when patients are referred for treatment. This will enhance the compliance for medical therapy at secondary and tertiary care level.

REFERENCES

1. Hallberg I, Hogdahi. A.M.Nilsson L, Rybo G. Menstrual blood Loss - a population based study. *Acta Obstet Gynaecol Scand* 1966; 45:320-350.

2. Cole SK, Billewicz WZ & Thomson A.M. Sources of variation in menstrual loss. Population based study. *J Obstet Gynaecol Br Cmmwlth* 1971; 78: 933-9.
3. Smith Sk, Abel MH, Kelly RW, Baired DT. Synthesis of prostaglandin from proliferative endometrium. *J Clin Endocrinol Metab* 1982; 55: 284-9.
4. Cameron IT & Norman JE endometrial biochemistry in menorrhagia. In: Asch R & Stued J (eds) *Progress in reproductive medicine Vol-II. New York. Parthenon Publishing* 1995; 267-79.
5. Higham JM, O'Brien PMS, Shaw RW. Assessment of menstrual blood loss using a pectorial chart. *Br J Obstet Synaecol* 1990; 97; 734-9.
6. Cote I Jaccobs P, Cumming DC. Use of health services associated with increased menstrual blood loss in the United States. *Am. J Obstet Gynaecol* 2003; 188: 343-8.
7. Cooper KG, Parkin DE, Garrat AM, Grant AM. A randomized combarison of medical and hysteroscopic management in women consulting gynecologist for treatment of heavy menstrual loss. *Br J Obstet Gynaecol* 1997; 104: 1360-1366.
8. Cooke I, Lethaby A. Farquhar C. Antifibrinolytics for heavy menstrual bleeding. (Cochrane review). In: *The Cochrane Library issue 3. Oxford Update Software, 1999.*
9. Coulter A, Bradlow J, Agass M, Martin Bates C, Tulloch A. Outcome of referrals to gynaecology out patient clinics for menstrual problems. An Audit of general practice records. *Br J Obstet Gynaecol* 1991; 98: 790-798.
10. Vessey MP, Villard Mackintosh L, Mc Pherson K, Coulter A, Yeates D. The epidemiology of hysterectomy: Findings in a large cohort study: *Br J Obstet Gynaecol* 1992; 99: 402-407.

11. Maresh M, Metcafe M, Mc Phreson K, et al. The VALUE national hysterectomy study. Description of patients and their Surgery. **Br J Obstet Gynaecol 2002; 109: 302-312.**
12. Milsom I, Andersson J K, Andersch 13, Rybo G. A comparison of flurbiprofen, tranxemic acid and Levonorgestrel intrauterine contraceptive device in the treatment of idiopathic menorrhagia. **Am J Obstet Gynaecol 1983; 90: 78-83.**
13. Goldarth M. Hysteroscopic endometrial ablation. In: Cameron IT, Fraser IS, Smith SK. (eds). Clinical Disorders of Endometrium and Menstrual Cycle. Oxford. **Oxford University Press 1998; 175-191.**
14. Anderson JK, Odland V, Rybo G. Levonorgestrel releasing and copper releasing (Nova T) IUCD's during 5 years use. A randomized comparative trial. **Contraception 1994; 49: 56-72.**
15. Latheenmaki P, Haukkamaa M, Puolakka J et al. Open randomized study of use of levonorgestrel releasing intrauterine system as alternative to hysterectomy **BMJ 1998; 316 : 1122-1126.**