Profile of Menorrhagia Patients: A Hospital-Based Study

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Abstract : *This prospective hospital-based study was conducted on 153 women with excessive menstrual bleeding. Those with pre-menarchal or post-menopausal per vaginal bleeding were excluded. After eliciting a detailed history, all patients underwent clinical examination and investigations including trans-abdominal ultrasonography. Pelvic examination was restricted to married patients. If indicated, dilatation and curettage or hysterectomy was done and histopathological reports were obtained for confirmation of diagnosis. The mean age of married (n=121) and unmarried patients (n=32) was 36.59±5.99 years (95% CI: 35.53-37.66 years) and 18.32±2.51 years (95% CI: 17.45-19.19 years), respectively. The difference in age was highly significant (Z=26.01, p<0.00001). The mean duration of menorrhagia was significantly longer (Z=7.061, p<0.00001) for married patients. Dysfunctional uterine bleeding and uterine fibroid were the predominant causes of menorrhagia. In relatively fewer numbers of married women, menorrhagia was due to adenomyosis, carcinoma of uterine cervix, IUCD use and pelvic inflammatory disease. Unmarried women sought treatment for menorrhagia earlier, as compared to their married counterparts. A majority of patients in the study had below-normal haemoglobin levels. Community-based education campaigns would be necessary to enhance care-seeking behaviour among adolescent girls and women.*
Keywords : *Dysfunctional uterine bleeding, Menorrhagia, Menstruation*

I.   Introduction

Menorrhagia is "blood loss of more than 80 ml per menstrual cycle" or "excessive menstrual blood loss which interferes with a woman's physical, social, emotional and/or material quality of life". [1] Defining "menorrhagia" as blood loss exceeding 80 ml, Cheong et al measured the actual blood loss and found a prevalence of 11% among Filipino women. [2] A similar study that measured actual blood loss reported a prevalence of 20% among Chinese women. [3] However, actual blood loss measurements are not routinely carried out in clinical practice. Menorrhagia is considered to be present if two or more of the following criteria are met – passage of large blood clots; need for simultaneous use of more than one sanitary absorbent (pad and tampon); need to change sanitary absorbents every 2 hours or less (or 12 sanitary absorbents per period); and overflow of menstrual blood to clothes or bedding. [4] In India, a frequency of 8% among adolescents [5] and 15% among women [6] has been reported, with increased frequency in older women. [7] Few studies from developing countries have assessed menorrhagia as a possible risk marker for other reproductive morbidities. [8] Menorrhagia is a frequent complaint of many of women attending Gynaecological Out Patient Department and can adversely affect physical, emotional and social quality of life and reduce work capacity. [9]

II.   Objective

The aim of this prospective hospital-based study was to determine the profile of patients with menorrhagia.

III. Materials And Methods

3.1. Place of study: This study was conducted in a hospital in Maharashtra in Western India.
3.2. Inclusion criteria: All female patients who had attained menarche and had complained of excessive menstrual bleeding were included.

3.3. Exclusion criteria: Those with pre-menarchal or post-menopausal per vaginal bleeding were excluded.
3.4. Procedure: After eliciting a detailed history (menstrual, obstetric, history of tubal ligation, intra-uterine contraceptive device (IUCD) insertion, and tuberculosis), all the patients underwent abdominal examination. Routine laboratory investigations that included platelet count, bleeding time and clotting time, were performed.

Pelvic examination was restricted to married patients. All patients underwent trans-abdominal (TA) ultrasonography. If necessary, trans-vaginal (TV) ultrasonography was performed. Obese patients with adnexal masses required both TA and TV ultrasonography. If indicated, dilatation and curettage or hysterectomy was done and histopathological reports were obtained for confirmation of diagnosis.

3.5. Statistical analysis

The obtained data were tabulated and statistically analysed using EpiInfo Version 7.0 (public domain software package from the Centers for Disease Control and Prevention, Atlanta, GA, USA). Continuous data were presented as Mean and Standard Deviation (SD). Confidence interval (CI) was stated at 95% interval in the range of (Mean–[1.96 x Standard Error]) to (Mean+[1.96 x Standard Error]). Categorical data were presented as percentages. The standard error of difference between two means was calculated. Statistical significance was determined at $p < 0.05$.

IV. Results And Discussion

4.1. Demographics: Of the 153 patients, 79.08% (n=121) were married and 20.91% (n=32) were unmarried. The mean age of married patients was 36.59±5.99 years with 95% CI of 35.53-37.66 years, while that for the unmarried patients was 18.32±2.51 years with 95% CI of 17.45-19.19 years. The difference in age between the married and unmarried patients was highly significant (Z=26.01, $p < 0.00001$). The maximum age for married women was 49 years, while it was 27 years for the unmarried. (Fig. 1) The minimum age for married and unmarried women was 20 years and 14 years, respectively. (Fig. 1)
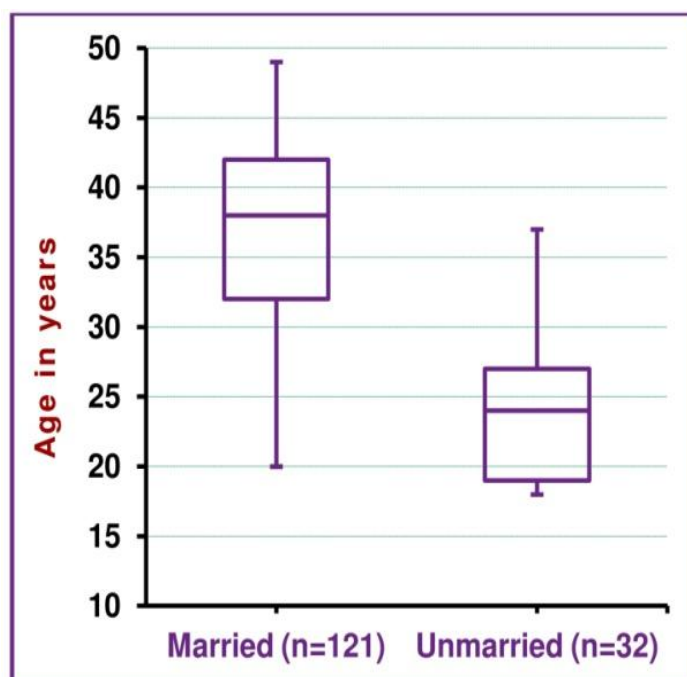

Fig. 1: Boxplot of age distribution of patients

4.2. Duration of menorrhagia: The mean duration of menorrhagia was 7.63±5.53 months with 95% CI of 6.65-8.62 months and 3.64±1.46 months with 95% CI of 3.13-4.15 months for the married and unmarried patients, respectively. The difference in duration of menorrhagia between the married and unmarried patients was highly significant (Z=7.061, $p < 0.00001$). Among the married women, the maximum duration of menorrhagia was 26 months while it was 6 months for unmarried women. (Fig. 2) The third quartile, median, first quartile and minimum were also of a longer duration for married women. (Fig. 2) The unmarried women had sought treatment relatively earlier, in the present study. Women may be inhibited from seeking care for menstrual problems due to tradition. [8] A study [10] has reported that South Asian women living in the United Kingdom refrained from reporting menorrhagia due to the belief that heavy periods "cleanse" the body.
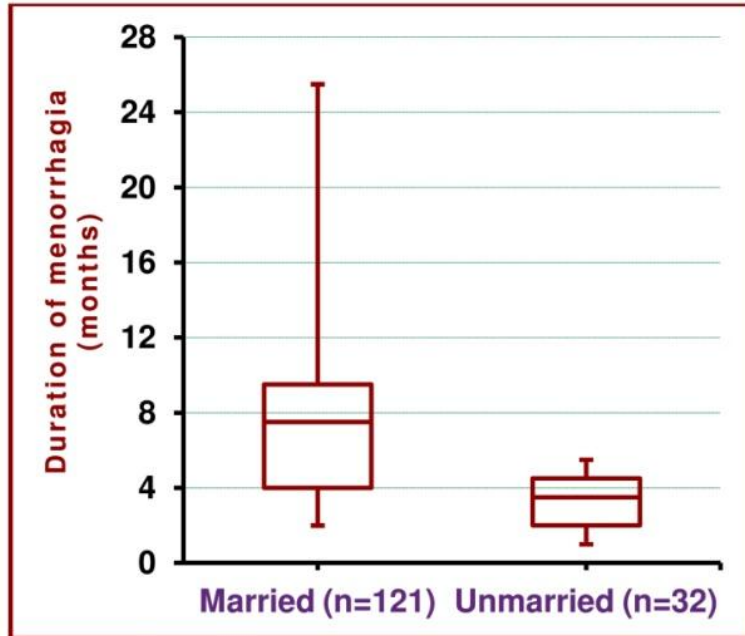
Fig. 2: Boxplot depicting duration of menorrhagia

4.3. Haemoglobin levels: The mean haemoglobin level of the married patients was 9.89±1.51 gms/dl with 95% CI of 9.62-10.15 gms/dl while that for the unmarried patients was 9.54±1.06 gms/dl with 95% CI of 9.17-9.91 gms/dl). The difference in haemoglobin levels between the two groups was not significant (Z=1.507; p=0.1336). Though maximum haemoglobin level for the married women was marginally higher (12.3 gms/dl) than that for unmarried women (11.8 gms/dl), the minimum haemoglobin level in married women was comparatively lower. (Fig.3) The third quartile of haemoglobin level was marginally higher for married women, while the median and the first quartile were almost similar. (Fig.3) A study [4] has reported that 63% of women with menorrhagia were iron-deficient.
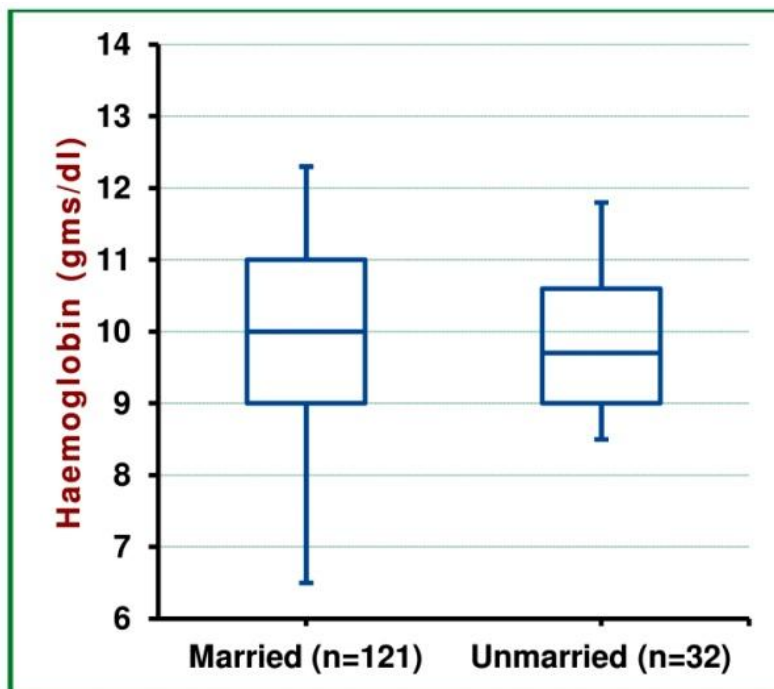

Fig. 3: Boxplot of haemoglobin levels

4.4. Diagnoses: Among the married patients (n=121), diagnoses ranged from dysfunctional uterine bleeding 55.37% (n=67), uterine fibroid 26.45% (n=32), adenomyosis 7.44% (n=9), carcinoma of uterine cervix 4.13%

(n=5) and 6.61% (n=8) had other conditions that included IUCD use and pelvic inflammatory disease. 29 out of 32 unmarried patients (90.62%) had dysfunctional uterine bleeding and 3 (9.38%) were diagnosed with uterine fibroid. In the present study, among the married patients (n=121), one (0.83%) was nulliparous, 17.36% (n=21) were primiparous and the others had two or more living children. A study [11] on 274 cases of dysfunctional uterine bleeding reported that 21.2% were nulliparous, 17.3% were primiparous and 61.5% were multiparous women. Another study [12] has reported that nulliparous women had significantly lower mean blood loss, as compared to parous women of the same age.

V. Conclusion

Unmarried women sought treatment for menorrhagia earlier, as compared to their married counterparts. A majority of patients in the study had below-normal haemoglobin levels. Dysfunctional uterine bleeding and uterine fibroid were the most frequent causes of menorrhagia among both married and unmarried patients. Community-based education campaigns would be necessary to enhance care-seeking behaviour among adolescent girls and women.

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