



A Study of Demographic Profile and Evaluation of Menorrhagia

KEYWORDS

Menorrhagia, Demographic factors, Endometrium

Dr. Kiranmai Gottapu

Assistant professor, Department of Obstetrics & Gynaecology, Alluri Sitarama Raju Academy of Medical Sciences, Eluru- 534005, Andhra Pradesh, India

Dr. Sharanya Golagabathula

Department of Obstetrics & Gynaecology, Alluri Sitarama Raju Academy of Medical Sciences, Eluru- 534005, Andhra Pradesh, India

ABSTRACT *Background: The aim of this study is to explore the relationship of various demographic factors in women presenting with menorrhagia and to evaluate the etiology and diagnosis of menorrhagia.*

Materials and Methods: All women of 15-45 years age group with complaint of menorrhagia attending the Gynaecology clinic at Alluri Sitarama Raju Academy of Medical Sciences, Eluru during the period of two years from July 2009 to June 2011 are included in the study after informed consent is obtained and analyzed.

Results: A total of 800 patients were analyzed. About 71% of the women are above 30 years, 77% are of low socio economic group, 46% are illiterate and the prevalence of menorrhagia decreases as the education status improves. More than half of the women are housewives and menorrhagia is least common in working women accounting to only 3%. About 41% are with more than the required BMI. 23% are unmarried and most of them are with 20 to 30 yrs of marital life including 60% multiparous women and 60% sterilized. 35% of the women presented with Hb% <8gm/dl and 5% had blood transfusions. The most common structural abnormality found on USG being fibroid uterus and the most common histopathology finding being normal endometrium followed by simple endometrial hyperplasia without atypia with cervical changes in 13%.

Conclusions: According to our experience, menorrhagia is influenced by various demographic factors like age, educational status, occupation and socioeconomic status. Menorrhagia is more common in women of greater than 30 yr age group belonging to low socioeconomic status. Most of them are illiterates who are either housewives or daily wage workers. This clearly shows the low literacy rates, and type of work associated with menorrhagia which strongly implicate the necessity of improving the literacy rate. Its prevalence is not much influenced by BMI. And most of the women are multiparous and sterilized.

Introduction

The word 'MENORRHAGIA' is derived from the greek words 'MENO' meaning uterus and 'RHEGNUNAI' meaning to burst forth. Infrequent episodes of menorrhagia usually do not carry severe risks to women's general health.

Menorrhagia is defined as excessive uterine bleeding occurring at regular intervals or prolonged uterine bleeding lasting more than seven days. The classic definition of menorrhagia (i.e., greater than 80 mL of blood loss per cycle) is rarely used clinically.

Menorrhagia is a common complaint. While menorrhagia remains a leading reason for gynecologic office visits, only 10-20% of all menstruating women experience blood loss severe enough to be defined clinically as menorrhagia. Approximately 5% of females seek medical attention for this condition. In recent years, there has been increased recognition of the scope and significance of gynaecological problems experienced by poor women in developing countries.

The World Health Organization reports that 18 million women aged 30-55 years perceive their menstrual bleeding to be exorbitant. Reports show that only 10% of these women experience blood loss severe enough to cause anemia or be clinically defined as menorrhagia.

In practice, measuring menstrual blood loss is difficult. Thus, the diagnosis is usually based upon the patient's history. Population studies show that the typical menstrual blood loss is 30-40ml, and that 90% of women have losses of less than 80ml Heavy menstrual flow that interferes with regular lifestyle.

Menorrhagia must be distinguished clinically from other common gynecologic diagnoses. These include metrorrha-

gia (flow at irregular intervals), menometrorrhagia (frequent, excessive flow), polymenorrhea (bleeding at intervals <21 d), and dysfunctional uterine bleeding (abnormal uterine bleeding without any obvious structural or systemic abnormality).

Aim: The aim of this study is to explore the relationship of various Demographic factors in women presenting with menorrhagia and to evaluate the etiology and diagnosis of menorrhagia.

Materials and methods:

Study Group: All women of 15-45 years age group with complaint of menorrhagia attending the Gynaecology clinic at Alluri Sitarama Raju Academy of Medical Sciences (ASRAM), Eluru during the period of two years from June 2009 to May 2011 are included in the study after informed consent is obtained and analyzed.

Methodology:

Clinical information pertaining to demographic data, complete medical history with attention to menstrual history is taken and the proforma is filled.

Additional important information includes prior pregnancies and contraceptive method, medications, social history (including domestic violence and assault), and review of systems (general well-being, gastrointestinal and genitourinary symptoms). The physical examination include vital signs and abdominopelvic evaluation.

Tests include a urine pregnancy test, Pap smear. In addition, endometrial biopsy performed on women over age 35 with abnormal bleeding to rule out endometrial hyperplasia. Serum testing includes complete blood count, Prothrombin/partial thromboplastin times, thyroid stimulating hormone, prolactin, follicle stimulating hormone, LH if due.

Additional studies include a pelvic ultrasound to rule out fibroids or structural abnormalities.

Statistical significance:

Statistical analysis of the study was performed using standard statistical software SPSS.

Results:

A total of 800 patients met our inclusion criteria and were studied for demographic profile and evaluated for menorrhagia.

Table-1 : Age distribution of Menorrhagia.

Age	Number
<20 years	64
20-30 years	168
30-40 years	304
>40 years	264

About 71% of the women are above 30 years.

distribution of Menorrhagia



Table-2: Literacy rate.

Education status	Number
Illiterates	368
Primary School	144
Upper Primary School	192
Secondary School	32
Graduation	64

46% are illiterate and the prevalence of menorrhagia decreases as the education status improves.

Literacy rate in women suffering with Menorrhagia

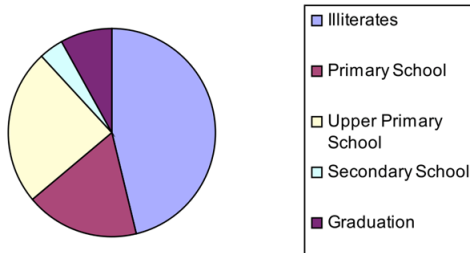


Table-3: Occupation of women with Menorrhagia

NATURE OF WORK	NUMBER
No work	64
House hold work	424
Daily wage worker	216
Students	72
Working women	24

More than half of the women are housewives. And menorrhagia is least common in working women accounting to only 3%.

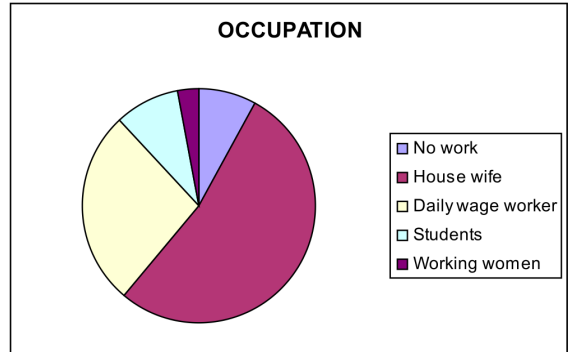
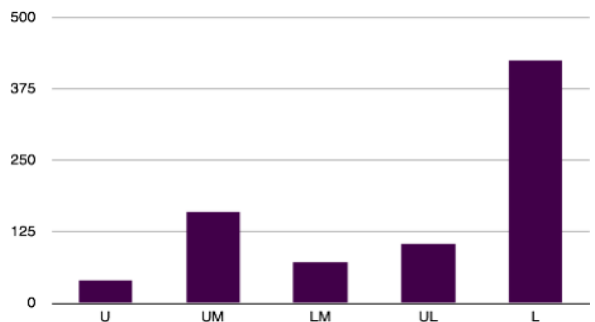


Table-4: Socio-economic status according to KUPPUSWAMY classification

Socio-economic Status	Number
Upper (26-29)-U	40
Upper Middle (16-25)-UM	160
Lower Middle (11-15)-LM	72
Upper Lower (5-10)-UL	104
Lower(< 5)L	424



Of the women who came to hospital about 77% were low socio economic group people, of which 53 %are house wives whose husbands are daily wage workers whose monthly income is about 3000Rs/- and 27 %woman by them selves are daily wage workers.

Socio-economic status:

Table-5: BMI.

BMI	Number
<25 (Healthy)	472
25-30 (overweight)	200
>30 (obese)	72
>40 (Morbid obesity)	56

About 41% are with more than the required BMI

BMI

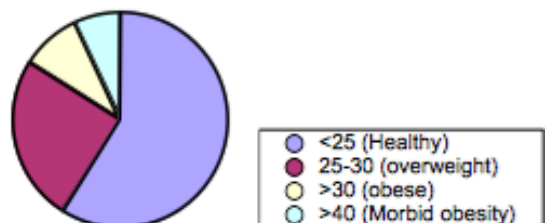


Table-6: Marital status of women with Menorrhagia.

Marital Status	Number
Unmarried	184
<1 year	72
<10 years	112
10-20 years	80
20-30 years	248
30-40 years	104

Of the women suffering with Menorrhagia 23% are unmarried and most of them are with 20 to 30 yrs of marital life.

MARITAL STATUS



Table-7: Parity.

Number of children	Number
Nulliparous	136
Multiparous	480

Most of them about 60% are multiparous.

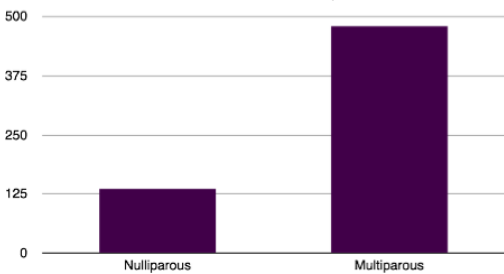


Table-8: Contraception status.

Contraception	Number
Pills used	136
No contraception	184
Tubectomized	480

Menorrhagia is more common in women who were already sterilised.

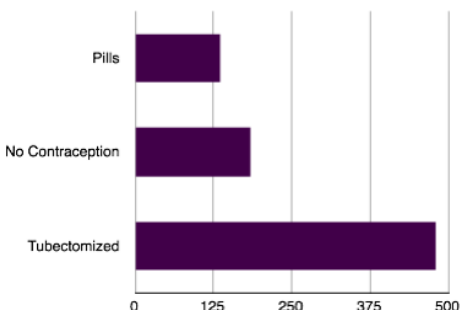


Table-9 : Associated complaints of Menorrhagia.

Complaint	Number
Pain in abdomen	472
White discharge	144
Fever	88
Urinary disturbances	96

Most common associated complaint is pain abdomen and 12% of cases have urinary disturbances

Table-10: Past history of medical disorders in women with Menorrhagia.

Medical illness	Number
Hypertension	56
Diabetes	48
Asthma	2

About 13% women have either hypertension or Diabetes or both.

Table-11: Haemoglobin percentage.

Haemoglobin level	Number
>12 gm/dl	104
10-12 gm/dl	176
8-10 gm/dl	240
<8 gm/dl	280

About 5% had blood transfusion.

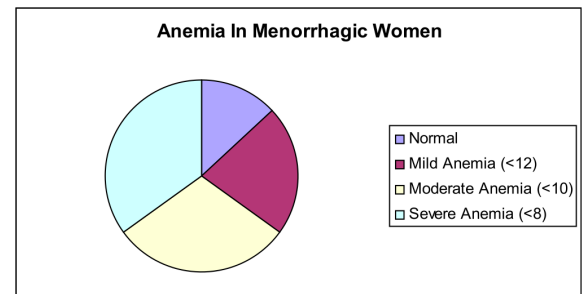


Table-12: Ultra sound findings.

Finding	Number
Fibroid uterus	88
Adenomyosis	56
Ovarian cysts	80

Most common finding being Fibroid uterus followed by Ovarian pathology.

Table 13: Histo pathology reports

Histopathology Repots	Number
Normal Endometrium	640
Cystic Glandular Hyperplasia	48
Simple Endometrial Hyperplasia with out Atypia	72
Simple Endometrial Hyperplasia with Atypia	8
Adenomatous Endometrial Polyp	32

Most common finding on endometrial biopsy is normal endometrium followed by simple endometrial hyperplasia with out atypia

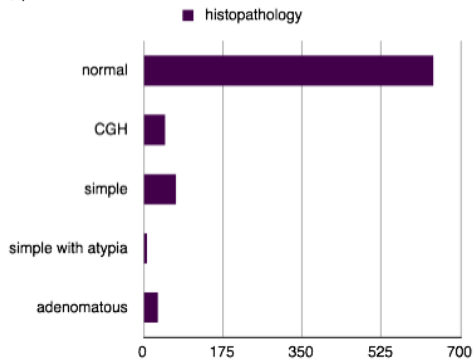


Table 14: Cervical changes

Changes in cervix	Number
Chronic non specific cervicitis	48
Koilocytosis	16
Microglandular Hyperplasia of endo cervix	8
Mild Dysplasia	32

About 13% women had cervical changes.

DISCUSSION

Of the 6,297 patients who have attended Gynaecology department during the period from July 2009 to June 2011, 13% complained of MENORRHAGIA. Our study, which is a population-based survey, reflects the prevalence of menorrhagia in the outpatient setting in current health system in ASRAM, Eluru. According to previous studies, 1 in 5 women bleeds so heavily each month.

Of the women who came to Gynaecology Department most were about greater than 30 years age. According to the studies of Catharina A. H. Janssen, Piet C. Scholten and A. Peter M. Heintz menstrual bleeding increased significantly with age and the percentage of women with menorrhagia was significantly higher above 40 years of age.

Long and irregular cycles were more common with advancing age and more common with menarche after age 14, with depression, and with increasing body mass index. However in our study as BMI had no significant influence.

According to our study 30% only are working women of which only 90% are having official jobs where as of the remaining 10% are daily wage workers. According to Cote I, Jacobs P, Cumming D women who have a heavier flow are 72% as likely to be working as are women who have a lighter or normal flow. This may be because –

1. Of their low literacy rates.

2. The working women may not complain that easily about their problem due to busy schedule unless associated with any problem like pain and white discharge. At this juncture my study coincides with that of a Scottish postal survey which suggested that the prevailing clinical preoccupation with heavy periods does not reflect the epidemiology of reported symptoms and problems. Reporting heavy or painful periods was common but reporting problem periods was less so. Reporting severe pain was at least as strongly associated with problem periods as very heavy periods and severe pain affected many more women than very heavy periods. Therefore the clinical preoccupation with heavy periods does not reflect the epidemiology of menstrual symptoms or problem.

Menorrhagia is more common in persons with BMI <25. This may be because that most of the women who are working are within this range and this coincides with the studies of Janssen CA, Scolten PC, Heintz AP who concluded that Body mass index is not significantly related to menorrhagia.

According to previous studies long cycles, irregular cycles, and intermenstrual bleeding were associated with a history of infertility. Menorrhagia is more common in multiparous women that is they have 3.5. times more risk than other women who are taking pills 2.6 times more risk than who are not sterilized. This is in accordance with studies conducted by Catharina A. H. Janssen CA, Scolten PC, Heintz AP on Menorrhagia a search for epidemiological risk markers. Their objective is to isolate epidemiological risk factors for menorrhagia. They found that menstrual blood loss increased significantly with age and the percentage of women with menorrhagia was significantly higher above 40 years of age. The ratio of parous:nulliparous women for menorrhagia was 2.27:1

According to Bernard L Harlow, Stacey, Missmer, Daniel W. Cramer, and Robert L. Barbieri; the cycle length, cycle regularity, menses length, flow volume, dysmenorrhea, and hormone levels were similar in women with and without a history of tubal ligation. However, among parous women with a history of cesarean section, those with a tubal ligation >5 years ago experienced a marginal increase in volume of menstrual flow. However according to

Cote I, Jacobs P, Cumming D Canada the women who had undergone sterilization were no more likely than those who had not undergone the procedure to report persistent changes in inter menstrual bleeding or the length of the menstrual cycle. Menorrhagia is more prevalent in women who were married for about 20 to 30 years.

No case of bleeding disorder or with family history of bleeding abnormalities has been reported. This gives a entirely wrong opinion that bleeding disorders are not that common. This may be due to the reason of poor knowledge of woman and as said by a Scottish postal survey that clinical preoccupation with heavy periods does not reflect the epidemiology of menstrual symptoms or problem and complications. The clinical correlation of bleeding disorders has been proved by Friberg B, Orno AK, Lindgren A, Lethagen S. According to their studies thirty-seven percent experienced heavy menstruation and of these 22% had different drugs as treatment for menorrhagia. Thirty-eight percent had a family history of heavy menstruation and half of them suffered from heavy menstruation themselves.

SUMMARY

We conducted a cross sectional study on demographic profile that includes information about age, educational status, occupation, socio economic status, BMI; detailed gynaec history, marital life, obstetric history, any history of blood transfusions, any drug history, any significant past medical and surgical history, personal habits is noted; general examination, and tests like HB and pap smear, Dilatation-Curettage are conducted for evaluation. The prevalence of menorrhagia is more in reproductive age group and in premenopausal women. It is more prevalent in low socio economic group people that is about 75% of which many are house wives and daily wage workers. If occupation is considered then it is more common in house wives(53) than in working women(27) and in students. 46% are illiterate and the prevalence of menorrhagia decreases as the education status improves. About 41% are with BMI >25. It is more common in women who are unmarried and women who are married for about 20-30 years. The prevalence in sterilized women is more than the women who are not sterilized and those on pills. It is more common in women who are multiparous.

Concerned with other complaints associated of the patients

who visited Gynaecology department with heavy menstrual cycles pain in abdomen was reported by about 59%, and about 18% reported white discharge, history of fever is given by about 11%, urinary symptoms are reported by 12%. About 5% showed past history of Blood transfusions. 6% are with diabetes and 7% with hypertension. 35% of the women presented with Hb% <8gm/dl.

Ultrasound reports showed fibroid uterus in 11% women; adenomyosis in 4%; ovarian pathology in 8%. Histo pathology reports showed normal endometrium in 80% women; Cystic Glandular hyperplasia in 6%; Simple Endometrial Hyperplasia without Atypia in 9%; Simple Endometrial Hyperplasia with Mild Atypia in 1%; Adenomatous Endometrial Polyp in 4% case.

CONCLUSION

According to our study; menorrhagia is influenced by various demographic factors like age, educational status, occupation and socioeconomic status. Menorrhagia is more common in women of greater than 30 yr age group belonging to low socioeconomic status. Most of them are illiterates who are either housewives or daily wage workers. This clearly

shows the low literacy rates, and type of work is associated with menorrhagia which strongly implicate the necessity of improving the literacy rate. Its prevalence is not much influenced by BMI. And most of the women are multiparous and sterilized.

The most common associated complaint being pain abdomen followed by discharge per vagina. Urinary symptoms are reported by 12% of women. 35% of women presented with Hb% of <8gm/dl and 5% had blood transfusions. About 1/4th of the women had structural abnormalities in the genital tract and 2% had associated urinary tract pathology. 20% of the women are diagnosed to have endometrial hyperplasia.

REFERENCE

- 1) Excessive menstrual bleeding: Quick primer. National Women's Health Information Center.
- 2) Women and anemia — Heavy menstrual bleeding and fibroids. National Anemia Action Council.
- 3) Vaginal bleeding. The Merck Manuals: The Merck Manual for Healthcare Professionals.
- 4) Abnormal uterine bleeding. The American College of Obstetricians and Gynecologists.
- 5) Questions to ask about excessive menstrual bleeding. National Women's Health Information Center.
- 6) Menstrual periods fact sheet. The American College of Obstetricians and Gynecologists
- 7) Goodman A. Terminology and evaluation of abnormal uterine bleeding in premenopausal women
- 8) De Silva NK, et al. Definition and evaluation of abnormal uterine bleeding in adolescents
- 9) Lobo RA. Abnormal uterine bleeding: Ovulatory and anovulatory dysfunctional uterine bleeding, management of acute and chronic excessive bleeding. In: Katz VL, et al., eds. *Comprehensive Gynecology*. 5th ed. Philadelphia, Pa.: Mosby; 2007.
- 10) Cervical cancer screening. Centers for Disease Control and Prevention.
- 11) Chiazzè L, Jr, Brayer FT, Macisco JJ, Jr, et al. The length and variability of the human menstrual cycle. *JAMA*.
- 12) Vollman RF. The menstrual cycle. Major problems in obstetrics and gynaecology. Volume 7. Philadelphia: WB Saunders Co; 1977.
- 13) Snowden R, Christian B, editors. Patterns and perceptions of menstruation. A World Health Organisation international collaborative study. New York: St. Martin's Press; 1983.
- 14) NHS Executive. Referral guidelines for suspected cancer. London: Department of Health; 2000.
- 15) Royal College of Obstetricians and Gynaecologists. The initial management of menorrhagia. London: RCOG Press; 1998. Evidence-based clinical guidelines, No 1.
- 16) Souter P. Malignant disease of the uterus. In: Edmonds DK, editor. *Dewhurst's textbook of obstetrics and gynaecology for postgraduates*. 6th ed. Oxford: Blackwell Science; 1999. pp. 560–571.
- 17) Townsend P, Phillimore P, Beattie A. Health and deprivation: inequality in the north. London: Croom Helm; 1988.
- 18) Wilson EB. Probable inference, the law of succession, and statistical inference. *J Am Stat Assoc*. 1927;22:209–212.
- 19) Bryant TN. Computer software for calculating confidence intervals (CIA). In: Altman DG, Machin D, Bryant TN, Gardner MJ, editors. *Statistics with confidence*. 2nd edn. London: BMJ Books; 2000. pp. 208–213.
- 20) Office of Population Census and Surveys. Morbidity statistics from general practice. Fourth national morbidity study, 1991–1992. London: HMSO; 1995.
- 21) Bang RA, Bang AT, Baitule M, Choudhary Y, Sarmukadan S and Tale O: "High prevalence of gynaecological diseases in rural Indian women", *Lancet*, 1:85-87(1989).