

Symptoms of Estrogen Deficiency in Nursing Personnel in Maharaj Nakorn Chiang Mai Hospital

Saipin Pongsatha MD*, Nuntana Morakote MPH*,
Narisa Sribanditmongkol BSc*, Somsak Chaovitsaree MD*

* Department of Obstetrics and Gynecology, Faculty of Medicine, Chiang Mai University

Objective : To determine the self-reported prevalence and severity of climacteric symptoms of estrogen deficiency in nursing personnel working in Maharaj Nakorn Chiang Mai Hospital during the year 2002.

Design : Cross-sectional descriptive study

Setting : Department of Obstetrics and Gynecology, Faculty of Medicine, Chiang Mai University.

Subject : Six-hundred and eight nursing personnel, including professional nurses and practical nurses, aged 40-60 years, working in Maharaj Nakorn Chiang Mai Hospital.

Material and Method : The same sets of questionnaires were provided and distributed to each subject. Subjects had self assessment under individual decision with written consent and data was prospectively collected. The data were analyzed using software SPSS version 10 and presented in frequencies and percentage.

Main outcome measure : The prevalence and severity of each climacteric symptoms.

Results : Five-hundred and seventy five of 608 subjects (94.6%) responded to the questionnaires, 62.6% of them were in normal reproductive period, while the remainder (37.4%) were in the menopausal period. The latter group was divided into 4 subgroups of pre/peri-menopause, post menopause, surgical menopause and premature ovarian failure. The prevalence of climacteric symptoms was systematically classified as follows, vasomotor instability 40.7% (severe cases; 5.4%), psychosomatic symptoms 50.9% (severe cases; 3.9%), lower urinary tract symptoms 29.1% (severe cases; 2.4%), lower genital tract symptoms 34.0% (severe cases; 2.7%), and other symptoms 50.7% (severe cases; 4.3%). The first five most common symptoms were as follows, forgetful 84.1% (severe cases; 7.9%), myalgia 74.3% (severe cases; 10.6%), anxious 71.0% (severe cases; 5.3%), tired 70.0% (severe cases; 4.1%), headache 68.3% (severe cases; 8.3%). The least common symptom was needle pain, the prevalence was 19.7% (severe cases 1.3%). The overall prevalence of women using hormone replacement therapy was 13.1%, only 8.9% were current users.

Conclusion : Focusing on each symptom of climacteric symptoms, the authors found high prevalence in psychosomatic symptoms and other symptoms such as forgetful, myalgia, anxious, tired and headache. While the classic symptom (vasomotor instability) was found to be low in the present study which was different from the previous reports. This may be due to the racial or cultural and educational factors among different populations.

J Med Assoc Thai 2004; 87(4): 405-9

From the beginning of the age of forty onward, women encounter several changes related to a decrease in ovarian function, especially the symptoms and signs secondary to estrogen fluctuations. The women of these age groups continue to face abnormal menstruation and climacteric symptoms. The symptoms associated with estrogen deficiency include many aspects such as vasomotor instability,

psychosomatic symptoms, lower genito-urinary symptoms and other symptoms.

Climacteric symptoms is one of the important problems in women with transitional period. Vasomotor instability is a unique symptom and a leading cause for women to seek counseling. Because it is most likely to occur at night, the pattern of normal and adequate sleeping is disrupted. Many unwanted consequences of vasomotor instability can even aggravate the severity of climacteric symptoms. The prevalence among Western women has been reported to be as

Correspondence to : Pongsatha S, Department of Obstetrics and Gynecology, Faculty of Medicine, Chiang Mai University, Chiang Mai 50200, Thailand.

high as 85% for vasomotor instability⁽¹⁾, whereas that reported among Thai women was much lower⁽²⁻⁴⁾. Such a different prevalence may be due to the different culture, knowledge, attitude and occupations.

The objective of the present study was to explore the prevalence of climacteric symptoms in nursing personnel working in our hospital. They were a specific group that the authors believed had more knowledge about health information than the general population and may differently reflect these symptoms.

Material and Method

This study was conducted from June 2002 to December 2002 at Maharaj Nakorn Chiang Mai Hospital. Six-hundred and eight sets of questionnaires were distributed to all nursing personnel aged 40-60 years in our hospital. The present study was approved by the ethics committee. Data were collected after informed consent were completed.

The questionnaire consisted of demographic characteristics including obstetric history, gynecologic surgery, each symptom of estrogen deficiency (climacteric symptoms). Degree of severity was classified by their perception as none/mild/moderate and severe.

The recruited women were divided into five subgroups as follows; normal reproductive age group (regular menstrual period), pre menopause (irregular period but missed period less than 3 months), perimenopause (amenorrhoea 3-12 months), post menopause (amenorrhoea more than 12 months), surgical menopause (post bilateral salpingo-oophorectomy in the reproductive age), and hysterectomized women (post hysterectomy).

All data were prospectively collected and finally analyzed using descriptive statistic software (SPSS version 10).

Results

Five-hundred and seventy five from 608 nurses, including professional nurses and practical nurses, aged 40-60 years in the year 2002, had complete response and returned the questionnaires. The remainder were absent because of pauses from work for further studying or during vacation. The mean age (S.D.) was 46.0 (4.3) years (range 40-60 years). The subject characteristics were classified by age group and reproductive function status, as demonstrated in Table 1.

The prevalence of each climacteric symptom classified by reproductive function status is shown in Table 2.

Table 1. The subject characteristics, by age group and reproductive function

Characteristics	N (Percent)
Age (Years)	
40-45	297(51.7)
46-50	191(33.2)
51-55	73(12.7)
56-60	14(2.4)
Reproductive status	
Normal	360(62.6)
Pre/ Peri-menopause	88(15.3)
Post menopause	60(10.4)
Surgical menopause (and hysterectomized women)	64 (11.2)
Premature ovarian failure	3(0.5)

Percentage of symptoms and percent of severe cases in all age groups classified by systematic function are shown in Table 3.

Discussion

Most women (62.6%) in the present study had normal reproductive function (normal menstruation), whereas 37.4% were in pre/perimenopause or postmenopausal period.

The prevalence of vasomotor instability in the present study was found to be only 40.7% (severe case 5.4%) which was much lower than that reported in other studies^(5,6). Considering the vasomotor instability among Thai women, the reported prevalence varied from 56.4 to 60.5. Concerning only Thais, aged 45-59 years it was reported from 56.4% to 60.5%^(3,4). The prevalence among Thai postmenopausal women in Klong Toey slum was 72.3% (severe cases; 29.4%)⁽²⁾ whereas the prevalence of hot flushes and sweating in post-menopausal women in the present study were 66.7% and 78.2% respectively (severe case were only 13.3% and 14.5% respectively).

The overall prevalence of vasomotor instability in the present study was quite low, this may partly be due to the fact that most women in the present study had normal reproductive function. However, when separately analyzed for each group (classified by reproductive function period), it was found that the prevalence of vasomotor instability was well correlated with the reproductive function status. Moreover, this prevalence was quite similar to a previous study⁽²⁾ as shown in Table 2.

Vaginal dryness, dyspareunia and decreased libido were found in the post-menopausal group (and also surgical menopause plus hysterectomized group)

Table 2. Prevalence of each symptom in various groups of reproductive status

Symptoms	Prevalence of symptoms (percent of severe cases)*			
	Normal	Pre/Peri menopause	Post-menopause	Surgical menopause
Vasomotor instability				
Hot flush	23.5(1.1)	56.9(9.5)	66.7(13.3)	61.1(5.6)
Sweating	32.3(2.5)	50.7(13.0)	78.2(14.5)	67.7(5.6)
Psychosomatic symptoms				
Anxious	68.4(3.3)	78.7(8.0)	76.7(6.7)	74.0(10.6)
Depressed	33.1(1.1)	38.7(3.6)	32.8(28.2)	31.4(1.4)
Unsatisfied with life	44.8(1.1)	54.7(4.0)	50.0(0.0)	45.8(6.9)
Tension	65.8(3.4)	69.3(10.7)	66.1(5.1)	66.7(6.9)
Lack of energy	52.4(2.8)	56.0(6.7)	56.7(6.7)	39.4(2.8)
Tired	42.7(1.7)	11.1(4.2)	45.8(1.7)	32.9(1.4)
Vertigo	50.3(2.8)	68.0(10.7)	55.7(1.6)	62.5(1.4)
Bloating	20.5(0.3)	27.0(1.4)	14.0(0.0)	25.7(2.9)
Difficulty breathing	28.3(1.7)	33.8(1.4)	23.7(1.7)	26.8(1.4)
Palpitation	35.7(1.4)	53.3(5.3)	47.5(1.7)	40.3(2.8)
Headache	67.0(8.0)	69.3(16.0)	74.0(5.2)	69.0(4.2)
Difficulty sleeping	48.7(5.3)	65.3(13.3)	63.3(11.7)	63.3(5.6)
Urinary symptoms				
Involuntary urination	20.3(1.1)	30.7(4.0)	22.0(1.7)	26.4(4.2)
Urinary stress incontinence	34.4(1.9)	42.7(5.3)	40.7(4.2)	43.0(4.2)
Urinary frequency	40.7(3.9)	44.0(9.3)	47.5(1.7)	46.5(5.6)
Dysuria	12.6(0.3)	21.3(1.3)	10.0(0.0)	12.7(0.0)
Lower genital symptoms				
Vaginal dryness	21.7(0.9)	43.5(4.3)	59.6(10.5)	56.0(12.1)
Genital itching	29.5(1.1)	31.4(1.4)	24.6(1.8)	28.9(2.9)
Leukorrhea	14.7(1.1)	43.5(1.4)	18.5(0.0)	22.1(2.9)
Dyspareunia	20.3(0.6)	32.3(1.6)	43.8(10.4)	46.9(7.8)
Decreased libido	33.3(3.3)	44.6(7.7)	60.8(9.8)	52.2(4.5)
Others symptoms				
Numbness	36.0(2.2)	47.9(1.4)	52.5(1.7)	39.4(5.6)
Needle pain	16.1(1.1)	25.4(1.4)	25.9(1.4)	27.1(0.0)
Skin itching	39.1(3.4)	45.2(2.7)	44.8(0.0)	44.4(2.8)
Myalgia	70.6(8.6)	82.4(13.5)	79.7(16.9)	80.6(12.5)
Forgetful	81.2(4.9)	88.9(12.5)	90.0(10.0)	89.0(16.4)
Dry eyes	22.8(0.6)	35.2(8.5)	36.8(1.8)	39.0(4.3)
Dry skin	48.9(1.9)	56.9(6.9)	63.2(7.0)	63.4(9.9)
Hair loss	42.5(2.5)	47.9(2.7)	49.2(3.4)	51.4(6.9)

Table 3. Percentage of symptoms classified by systematic function.

Symptoms	Percent (severe cases)
Vasomotor instability	40.7(5.4)
Psychosomatic symptoms	50.9(3.9)
Lower urinary tract symptoms	29.1(2.4)
Lower genital tract symptoms	34.0(2.7)
Others symptoms	50.7(4.3)

more than those in pre/peri menopausal women and the normal reproductive group. The prevalences among post menopause group were 59.6%, 43.8% and 60.8% respectively.

Concerning other climacteric symptoms (psychosomatic and other symptoms), it was found to be moderate to high prevalence in all age groups but no significant difference was shown between these groups. Therefore, it was unable to use these symptoms as the marker of climacteric symptoms. Finally, lower urinary tract symptom was demonstrated to have the same prevalence in all groups.

In conclusion, the result from this study reveals that vasomotor instability, vaginal dryness, dyspareunia and decreased libido were the relatively specific markers of climacteric symptoms. Whereas, the remaining symptoms were not specific, even though the authors found a higher prevalence than other symptoms.

The three most common symptoms in nursing personnel were non specific symptoms such as forgetful (84.1%), myalgia (74.3%) and anxious (71.0%), while vasomotor instability was found in only 40.7%. The authors supposed that the high prevalence of these symptoms may be associated with their profession as well as duty stress which may be different from others.

However, among women who had climacteric symptoms, only a few had severe symptoms. So they might need no hormonal replacement therapy. Only 9.0% of the population in the present study were current users of hormones that was compatible with the few who had severe symptoms.

References

1. Santore NA, Brown JR, Adel T, Skurnich JH. Characterization of reproductive hormonal dynamics in the perimenopause. *J Clin Endocrinol Metab* 1996; 81: 1495-501.
2. Chaikittisilpa S, Limpaphayom K, Chompoothep S, Taechakraichana N. Symptoms and problems of menopausal women in Klong Toey Slum. *J Med Assoc Thai* 1997; 80: 257-61.
3. Dangpiam C, Wanapirak C, Kaensuk W. Symptomatic changes during menopausal period and related factors of female staff in Chiang Mai University. *Nurse J* 1999; 14-28.
4. Thamviruch P, Watananont Y. The study on knowledge of menopause and self -health care among post-menopausal nurses. *J Nursing* 1998; 16: 57-70.
5. Lock M. Menopause in cultural context. *Exp Gerontol* 1994;29:307-17.
6. Santoro N, Brown JR, Adel T, Skurnich JH. Characterization of reproductive hormonal dynamics in the perimenopause. *J Clin Endocrinol Metab* 1996; 81:1495-501.

อาการของการขาดเอสโตรเจนในบุคลากรทางการแพทย์ โรงพยาบาล โรงพยาบาลมหาราชนครเชียงใหม่

สายพิณ พงษ์ธา, นันทนา มรกต, นริสา ศรีบัณฑิตมงคล, สมศักดิ์ เชาววิศิษฐ์เสรี

วัตถุประสงค์ : เพื่อหาความชุก และความรุนแรงของอาการหมดประจำเดือน เนื่องจากภาวะขาดเอสโตรเจน ในบุคลากรทางการแพทย์ โรงพยาบาล โรงพยาบาลมหาราชนครเชียงใหม่

วิธีการศึกษา : การวิจัยเชิงพรรณนาแบบตัดขวาง

สถานที่ทำการวิจัย : ภาควิชาสูติศาสตร์และนรีเวชวิทยา คณะแพทยศาสตร์ มหาวิทยาลัยเชียงใหม่

กลุ่มตัวอย่าง : บุคลากรทางการแพทย์เพศหญิงทั้งหมด 608 คน ที่มีอายุระหว่าง 40 – 60 ปี สังกัดฝ่ายการพยาบาล โรงพยาบาลมหาราชนครเชียงใหม่

วิธีการศึกษา : ใช้แบบสอบถามที่ได้จัดทำขึ้นแจกให้บุคลากรพยาบาลตอบแบบสอบถามเอง โดยความสมัครใจ รวบรวมข้อมูลที่ได้จากแบบสอบถามที่ส่งกลับคืนมา นำไปวิเคราะห์ข้อมูลหา ความถี่ และร้อยละด้วยโปรแกรมคอมพิวเตอร์

การวัดผล : หาความชุกและความรุนแรงของอาการหมดประจำเดือน

ผลการศึกษา : บุคลากรพยาบาลเพศหญิง 575 คน จาก 608 คนที่ตอบแบบสอบถามกลับคืน (ร้อยละ 94.6) พบว่า ร้อยละ 62.6 เป็นกลุ่มวัยเจริญพันธุ์ปกติ ที่เหลือ (ร้อยละ 37.4) เป็นกลุ่มวัยหมดประจำเดือน โดยแยกเป็น กลุ่มวัยก่อนและใกล้หมดประจำเดือน, กลุ่มวัยหลังหมดประจำเดือน, กลุ่มหมดประจำเดือนจากการผ่าตัด และกลุ่มรังไข่หยุดทำงานก่อนกำหนด เมื่อหาความชุกของอาการวัยหมดประจำเดือน โดยแบ่งตามระบบต่าง ๆ พบว่า กลุ่มอาการทางระบบประสาทอัตโนมัติ พบร้อยละ 40.7 (รุนแรงร้อยละ 5.4), ระบบจิตประสาท ร้อยละ 50.9 (รุนแรง ร้อยละ 3.9) ระบบทางเดินปัสสาวะ ร้อยละ 29.1 (รุนแรง ร้อยละ 2.4), ระบบอวัยวะสืบพันธุ์ ร้อยละ 34.0 (รุนแรง ร้อยละ 2.7), กลุ่มอาการอื่น ๆ ร้อยละ 50.7 (รุนแรง ร้อยละ 4.3) อาการที่พบมากที่สุด 5 อันดับแรกได้แก่ หลงลืม ร้อยละ 84.1 (รุนแรง ร้อยละ 7.9), ปวดเมื่อยกล้ามเนื้อ ร้อยละ 74.3 (รุนแรง ร้อยละ 10.6), วิตกกังวล ร้อยละ 71.0 (รุนแรง ร้อยละ 5.3), เหนื่อยเพลีย ร้อยละ 70.0 (รุนแรง ร้อยละ 4.1), ปวดศีรษะ ร้อยละ 68.3 (รุนแรง ร้อยละ 8.3) ส่วนอาการรู้สึกเหมือนเข็มตำพบน้อยที่สุดเพียงร้อยละ 19.7 (รุนแรง ร้อยละ 1.3) ในการศึกษาพบผู้ที่ไฮเปอร์โมนทดแทนทั้งหมด ร้อยละ 13.1 โดยเป็นผู้ที่กำลังใช้ยาในปัจจุบัน ร้อยละ 8.9

สรุป : อาการของวัยหมดประจำเดือน พบว่า มีความชุกสูงในกลุ่มอาการทางระบบจิตประสาท และกลุ่มอาการอื่น ๆ ได้แก่ หลงลืม, ปวดเมื่อยกล้ามเนื้อและข้อ, วิตกกังวล, เหนื่อยเพลีย และปวดศีรษะ ขณะที่อาการทางระบบประสาทอัตโนมัติพบได้น้อยกว่าที่พบในการศึกษาอื่น ๆ ซึ่งความแตกต่างของกลุ่มตัวอย่างน่าจะมีผลต่อความชุกของกลุ่มอาการและความรุนแรง