The Impact of Overactive Bladder, Stress and Mixed Urinary Incontinence on Quality of Life in Thai Postmenopausal Women

Suvit Bunyavejchevin MD, MHS*

** Urogynecology Unit, Department of Obstetrics and Gynecology, Faculty of Medicine, Chulalongkorn University*

Objective: *To assess the quality of life (QOL) of Thai postmenopausal women with overactive bladder (OAB), stress urinary incontinence (SUI) and mixed urinary incontinence (MUI)*
Material and Method: *A total of 420 Thai postmenopausal women (120 had SUI, 60 MUI, 120 OAB and 120 controls) were recruited. QOL was assessed by the Thai version short form 36 (SF-36).*
Results: *There was no significant difference in the patients's characteristics. All domains of SF-36 in women with OAB, SUI and MUI were statistically significantly lower than the control group. OAB and MUI had lower SF-36 scores than SUI in all domains except the role of physical health. When compared between OAB and MUI, the women with MUI had lower SF-36 scores than OAB in all domains (except the physical functioning and general health).*
Conclusion: *OAB, SUI and MUI had more significant impaired QOL than control. The author found a greater impact on QUL in OAB and MUI in Thai postmenopausal women.*

Keywords: *Quality of life, Female urinary incontinence*

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Urinary incontinence was defined by the International Continence Society (ICS) as the complaint of any involuntary leakage of urine[1]. This condition causes considerable distress and leads to impaired quality of life. Quality of life (QOL) is a multidimensional concept reflecting the individual's experience of physical, emotional and social well being, as well as perception of health status[2].

The incontinence may be classified as overactive bladder (OAB, involuntary and unpredictable contractions of the detrusor muscle during the filling phase of the micturition cycle, causing an increased micturition frequency and a strong urge to void[1,3,4], stress urinary incontinence (SUI, involuntary leakage on effort or exertion, or on sneezing or coughing), or mixed type urinary incontinence (MUI, involuntary leakage associated with urgency and with exertion, effort, sneezing or coughing[1]). There have been many reports of the lower QOL by the woman with different types of incontinence[5-9]. The QOL in women with MUI appeared to be even lower than the others[6, 9-11]. There are no reports that compare the QOL assessment compared with between the different groups of incontinence in Asian woman. The present study was conducted to assess the impact of OAB, SUI and MUI on the quality of life in Thai postmenopausal women.

Correspondence to : Bunyavejchevin S, Department of Obstetric & Gynaecology, Faculty of Medicine Chulalongkorn University, Rama IV Rd, Bangkok 10330, Thailand. Phone: 0-2256-4288, Fax: 0-2250-1320, E-mail: fmedsby@md2.md.chula.ac.th

Material and Method

A total of 420 Thai menopausal women (120 had SUI, 60 MUI, 120 OAB and 120 controls) were recruited in the present study. All women attended the Gynecology clinic at King Chulalongkorn Memorial Hospital from January 2003 to February 2004. Cases were interviewed using the questionnaire proposed by Wein and Rovner[12] to diagnose the SUI and MUI. Overactive bladder (OAB) was diagnosed by symptom status[13]. The women with OAB had to meet the case definition for OAB if they reported at least one of the

following: frequency (exceeding eight micturitons in a 24-hour period or waking up at least twice each night to urinate); Urgency (a sudden feeling of a full bladder and the immediate need to urinate to avoid the accidental loss of urine); or urge incontinence (accidental loss of urine or accidental loss of urine caused by an uncontrollable and sudden urge to urinate that occurred at least once per month and included more than just a "few drops of urine"). Controls were Thai women with cessation of menstruation more than one year. They had no symptom related to urinary incontinence or OAB and answered "No" to all the questions. Quality of life was assessed by the Thai version short form-36 (SF-36) QOL questionnaire[14,16].

The SF-36 questionnaire is a generic instrument that assesses eight QOL domains: physical functioning (e.g. walking, running, lifting and carrying), role-physical (e.g. limitations in such normal daily activities as work, household chores and school because of physical problems), bodily pain (e.g. how much pain is the person experiencing), general health (e.g. health perceptions), vitality (e.g. fatigue and energy level), social functioning (e.g. interference in normal social activities such as visiting friends and family), role-emotional (e.g. limitations in such normal daily activities as work, household chores and school because of emotional problems) and mental health (e.g. happiness and nervousness). Scores range from 0 to 100 for each dimension, with 100 indicating optimal QOL.

Statistical Method

The continuous data was compared using F-test or ANOVA if it was significant then post comparison between group were applied, the categorical data using chi-square test and the p-values were not adjusted for multiple comparisons, as this examination of data was considered exploratory. For all analyses, p-value < 0.05 was considered to indicate statistical significance.

Results

There was no statistical difference of age, marital status and education among OAB, SUI, MUI and control (Table 1). All domains of SF-36 of OAB, SUI and MUI were statistically lower from the control group (Table 2). OAB and MUI had lower SF-36 scores than SUI in all domains except the role physical (RP), when compared between OAB and MUI. The women with MUI had lower SF-36 scores than OAB in all domains except physical functioning (PF) and general health (GH) (Table 2).

Discussion

Quality of life (QOL) has become a topic of great interest in the evaluation of the impact of diseases, particularly for benign conditions. Many studies have analyzed QOL in women with urinary incontinence (UI)[17-19]. However, very few studies have compared women with UI or overactive bladder (OAB) and women without these conditions. SF-36 questionnaire was designed to compare the QOL by measuring health concepts which was not age, disease, or treatment specific and was deemed appropriate for monitoring the results of care as well as a measure of outcomes from the patient's perspective[16, 20]. The Thai version SF-36 was translated and tested for validity and

Table 1. Patient's characteristics

Characteristics	OAB N = 120 (%)	Stress UI N = 120 (%)	Mixed UI N = 60 (%)	Control
Age (yr, mean ± SD)	52.7 ± 5.0	52.9 ± 4.9	58.8 ± 8.7	52.9 ± 5.1
Marital status				
Single	30 (25.0)	28 (23.3)	12 (20.0)	28 (23.3)
Married	87 (72.5)	90 (75.0)	44 (73.3)	88 (73.3)
Divorced	3 (2.5)	2 (1.7)	4 (6.7)	4 (3.3)
Education				
> Graduate degree	28 (23.3)	24 (20.0)	12 (20.0)	25 (20.8)
Vocational	19 (15.8)	18 (15.0)	10 (16.7)	21 (17.5)
Secondary school	50 (41.7)	50 (41.7)	24 (40.0)	49 (40.8)
≤ Secondary school	23 (19.2)	28 (23.3)	14 (23.3)	25 (20.8)

There was no statistical difference of all the characteristics among the groups

Table 2. The mean ± SD of SF-36 scores in Thai postmenopausal women with different types of incontinence

Group	Physical functioning (PF)	Role Physical health (RP)	Body Pain (BP)	General health (GH)	Vitality (VT)	Social functioning (SF)	Role Emotion (RE)	Mental health (MH)	N
Control	74.3±18.8	84.2±25.5	66.9±20.6	60.5±20.6	64.1±20.1	83.3±17.5	71.6±37.6	72.2±16.1	120
Stress incontinence (SUI)	69.8±17.5 (a) (b)	55.4±36.7	56.1±18.4 (a) (b)	51.4±16.1 (a) (b)	57.2±16.1 (a) (b)	70.6±20.9 (a) (b)	49.4±42.5 (a) (b)	66.8±14.6 (a) (b)	120
Overactive bladder (OAB)	66.3±26.3 (a)	50.0±37.8 (c)	53.3±26.1 (a) (c)	39.6±20.3 (a)	49.6±18.2 (a) (c)	68.4±28.3 (a) (c)	48.7±42.1 (a) (c)	59.6±20.2 (a) (c)	120
Mixed type incontinence (MUI)	59.0±21.9 (b)	65.0±37.7 (c)	39.6±24.5 (b) (c)	43.2±28.9 (b)	62.0±16.1 (b) (c)	50.0±34.7 (b) (c)	66.6±42.5 (b) (c)	73.6±13.9 (b) (c)	60

(a) = statistically significant difference between SUI and OAB, ($p < 0.05$)
(b) = statistically significant difference between SUI and MUI, ($p < 0.05$)
(c) = statistically significant difference between MUI and OAB, ($p < 0.05$)
All OAB, SUI and MUI were statistically significant lower than control group ($p < 0.05$)

reliability with permission of J.E. ware[14]. This was the only QOL questionnaire that had been translated and tested in the Thai language.

From the present study, the author found that while all UI reduced the QOL, MUI reduced it the most. Women with stress UI can modify the life style to avoid the urine leakage such as wearing a pad, avoid heavy lifting or exercise[21]. So the QOL of SUI was less affected than OAB and MUI. OAB can lower the QOL as the patient avoids going out from home due to the embarrassment and the discomfort to search for a toilet because of urinary frequency, episode of urge incontinence or unpredicted urgency[22,23]. As MUI had both SUI and OAB problems, so the QOL of MUI was affected most.

Up to now, there is no report of the effect of UI on QOL in Thai women. The present study confirmed the same effect of UI in Thai postmenopausal women as in the reports of European women. The high impact of UI on QOL in Thai postmenopausal women shows that gynecologists must pay more attention to the urogynecology problem in the menopause. In the present study, the authors classified the UI based entirely on the patients' reports of symptoms without the urodynamic study. The questionnaire used in the present study was sensitive, specific and had been validated. The classification of UI in the present study corresponded to the International Continence Society (ICS) classification[1].

Conclusion

OAB, SUI and MUI had significantly lower the QOL in Thai postmenopausal women compared with the control group. The authors found a greater impact on QOL in OAB and MUI than in SUI.

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ผลกระทบของโรคกระเพาะปัสสาวะไวเกิน โรคไอจามปัสสาวะเล็ด และโรคปัสสาวะเล็ดชนิดรวมต่อคุณภาพชีวิตของสตรีไทยในวัยหมดประจำเดือน

สุวิทย์ บุณยะเวชชีวิน

วัตถุประสงค์: เพื่อประเมินคุณภาพชีวิตของสตรีไทยในวัยหมดประจำเดือน ที่เป็นโรคกระเพาะปัสสาวะไวเกิน โรคไอจามปัสสาวะเล็ด และโรคปัสสาวะเล็ดชนิดรวม

วัสดุและวิธีการ: ทำการศึกษาในสตรีไทยในวัยหมดประจำเดือน 420 คน (120 รายเป็นโรคไอจามปัสสาวะเล็ด 120 รายเป็นโรคกระเพาะปัสสาวะไวเกิน 60 รายเป็นโรคปัสสาวะเล็ดชนิดรวม และ 120 รายเป็นกลุ่มควบคุม) ทำการประเมินคุณภาพชีวิตโดยใช้ short form (SF-36) ฉบับภาษาไทย

ผลการศึกษา: ไม่พบความแตกต่างของลักษณะประชาการทั้ง 2 กลุ่ม ทุกหัวข้อของ SF-36 ในสตรีที่มี โรคกระเพาะปัสสาวะไวเกิน โรคไอจามปัสสาวะเล็ด และโรคปัสสาวะเล็ดชนิดรวม มีคะแนนน้อยกว่ากลุ่มควบคุมอย่างมีนัยสำคัญตามสถิติ โรคกระเพาะปัสสาวะไวเกิน และโรคปัสสาวะเล็ดชนิดรวม มีคะแนน SF-36 ต่ำกลุ่มที่มีโรคไอจามปัสสาวะเล็ดในทุกหัวข้อยกเว้น role physical health เมื่อเปรียบเทียบระหว่างกลุ่ม โรคกระเพาะปัสสาวะไวเกิน และโรคปัสสาวะเล็ดชนิดรวมแล้ว พบว่าสตรีที่มีโรคปัสสาวะเล็ดชนิดรวมมีค่า SF-36 ต่ำกว่าโรคกระเพาะปัสสาวะไวเกินในทุกหัวข้อ (ยกเว้น physical functioning and general health)

สรุป: โรคกระเพาะปัสสาวะไวเกิน โรคไอจามปัสสาวะเล็ด และโรคปัสสาวะเล็ดชนิดรวม มีผลทำให้คุณภาพชีวิตลดน้อยลงกว่ากลุ่มควบคุมอย่างมีนัยสำคัญ ผู้วิจัยพบว่า โรคกระเพาะปัสสาวะไวเกิน และโรคปัสสาวะเล็ดชนิดรวมมีผลกระทบต่อคุณภาพชีวิตของสตรีไทยในวัยหมดปนะจำเดือนอย่างมาก