subjects, without relevant disease or medications (n=17) also had less nocturia (1.1 vs 1.8, p=0.008). The most "normal" group (asymptomatic, without confounding disease or drugs, and with normal urodynamics) (n=6), also had less nocturia (0.8 vs 1.7, p=0.03).

Conclusions: These data, obtained for the first time from normal, continent, and urodynamically assessed elderly, suggest: (1) Continent elderly lack the usual circadian pattern of decreased nocturnal urine production of younger adults. (2) Volume related nocturia increases with age; the use of nocturia in diagnosing and following diseases may be limited. (3) Normative data depend on the definition of normal, even among healthy, continent elderly.

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Title (type in CAPITAL LETTERS, leave one blank line before the text): URINARY INCONTINENCE IN NON-INSTITUTIONALIZED WOMEN AGED 45-70: PREVALENCE AND QUALITY OF LIFE

Aim of the study

Female urinary incontinence is a common problem with an estimated prevalence between the 20 and 57%. This wide range in reported prevalence could be due to the use of different definitions for urinary incontinence, demographic difference or the way questions are designed. Since most authors do not mention which questions were used to identify women with urinary incontinence, it is difficult to compare data. It is known that quality of life (QOL) can be negatively affected by urinary incontinence. This study was designed to estimate the prevalence of urinary incontinence with a validated questionnaire and to report on the consequences that urinary incontinence may have on physical and emotional health.

Method

A random sample of 1905 women, aged 45 to 70 years old was taken from the population registration office. All women received a questionnaire that contained the Dutch translation of the Urogenital Distress Inventory (UDI) / Incontinence Impact Questionnaire (IIQ)(disease-specific quality of life questionnaire for urinary incontinence) (1), the RAND-36 (generic QOL questionnaire) and the CES-D (depressive symptomatology). Two questions were selected from the UDI as indicators of stress incontinence (do you experience urine leakage related to physical activity, coughing or sneezing?) and urge incontinence (do you experience urine leakage related to a feeling of urgency?). These two items were used to distinguish four groups: women without incontinence, women with only stress incontinence, women with only urge incontinence and women with mixed incontinence. Women who also reported faecal incontinence for liquid or solid stools were excluded from analysis. The four groups were compared for their scores on the RAND-36 and IIQ using ANOVA. Previous factor analysis of the Dutch translation of the IIQ identified a fifth domain with items closely related to embarrassment. A CES-D score > 16 was used to identify women with a probable depression.

Results

A total of 1079 women (60%) responded. Eighty-seven women reported fecal incontinence and were excluded, leaving 992 evaluable women. Of these women 446 (45%) reported no urinary incontinence, 285 (28.7%) only stress incontinence, 53 (5.3%) only urge incontinence and 208 (22.0%) mixed incontinence. Of the 546 women with incontinence 353 answered the questions of the IIQ. Comparing the mean scores of the RAND-36 domains for the four groups showed that only women with mixed incontinence reported a significant worse quality of life on all domains when compared to continent women. There were no differences found between the different types of urinary incontinence. However, with the use of the disease-specific IIQ substantial differences were found between the different types of urinary incontinence as is presented in the Table. A high score indicates a worse QOL.

Table Mean scores of the different types of urinary incontinence on the IIQ. The urge and mixed incontinence groups were compared to the stress group. * p<0.05, ** p<0.01, *** p<0.001

IIQ	Stress incontinence n=154	Urge incontinence n=31	Mixed incontinence n=168
Travel/Mobility	5.5	16.3 ***	12.2 ***
Emotional functioning	5.0	6.9	9.0 **
Social functioning	1.6	5.1	4.4 *
Physical activity	2.1	10.8 **	7.1 **
Embarrassment	6.3	10.8	10.3
Total	20.4	49.8 **	42.8 ***

Women with an urge or mixed incontinence reported a statistical significant, two-fold increased risk of having depressive symptoms (CES-D > 16) when compared to continent women.

Conclusions

The prevalence of urinary incontinence in women aged 45 to 70 years is high (55%). Especially women with mixed

incontinence report a worse quality of life when compared to continent women or women with only stress incontinence. A difference in QOL between groups of different types of urinary incontinence was best identified with the IIQ.

Reference
1. Quality Life Res 1994;3:291-306

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Title (type in CAPITAL LETTERS, leave one blank line before the text):

DOSE TITRATION KEY TO OXYBUTYNIN EFFICACY FOR GERIATRIC INCONTINENCE, EVEN FOR DHIC

Aims of Study

Oxybutynin (OXY) for urge urinary incontinence (UI) in the elderly has shown fair efficacy and low tolerability in previous studies. Age-related factors (decreased detrusor contractility, increased response variability, concomitant pathologies and multiple medications) may contribute to these poor results, many having additive effects. We postulated that a stepped approach including both efficacy and side effects might maximize benefit and minimize adverse effects, thus achieving successful pharmacotherapy of geriatric urge UI. The aims of the study were (1) to determine the efficacy of OXY in elderly when individually titrated to side effects and postvoid residual (PVR), and (2) to determine predictors of response to this approach.

Methods

We conducted an 8 week placebo-controlled, blinded randomized clinical trial of community-dwelling, cognitively intact subjects over age 50 with an average urge UI rate of ≥2x/4d. After clinical and videourodynamic evaluation and randomization (3:2 OXY:placebo), dose was adjusted weekly for up to 4 weeks (increased for persistent UI, decreased for PVR >400 ml, and titrated to side effects), then maintained. 3 outcome measures were calculated from 4 day voiding records at baseline and conclusion: % decrease in UI episodes; achievement of clinical "goal" UI rate; and cure (dry). Goal daily UI rate was 0 if baseline UI rate was <2x/d, <1 if baseline was 2-4x/d, and ≥50% decrease if baseline was ≥4x/d. Impaired detrusor contractility (DHIC) was defined by a nonstrained PVR >50 ml.

Results

Of 167 subjects enrolled, we excluded 33 for urodynamic and voiding record criteria. The 39 noncompleters did not differ from the 95 participants in age, sex, and mental status. OXY and placebo groups were statistically equivalent in age (mean 71, range 53-91), sex (89% women), baseline UI rate (mean 2.8, range 0.5-13.3), and percent DHIC (27). Mean OXY dose was 9.4 mg/d, range 2.5-20, mode 2.5 tid. Limiting side effects were most commonly dry mouth, rarely constipation, and once elevated PVR.

	Oxybutynin	Placebo	p
% improved, mean (range)	76 (-174 to 100)	34 (-413 to 100)	0.0001
% achieving UI goal rate	72	34	0.001
% dry	61	17	0.001
% worse than baseline	6	17	0.07
Final daily UI, mean (range)	0.9 (0-9.8)	1.5 (0-5.6)	0.0003
DHIC % improved (range)	73 (-25 to 100)	24 (-155 to 100)	0.06

Incontinence outcomes were superior in those on OXY (table). OXY subjects reached goal UI rate in equal numbers whether impaired or normal contractility (63% v 76%, p=0.3), but fewer with DHIC were cured (38% v 71%, p=0.02). An equivalent number of impaired and normal