Title

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MP04-07

THE ASSOCIATION OF DIETARY SALT INTAKE AND NOCTURIA: DATA FROM THE 2011-2014 NATIONAL HEALTH AND NUTRITION EXAMINATION SURVEY (NHANES)

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INTRODUCTION AND OBJECTIVES: Patients are anecdotally advised to decrease dietary sodium intake to improve nocturia. Recent small studies report higher dietary sodium intake is associated with an increased risk of nocturia. We sought to investigate this association using a large, cross-sectional, population-based database.

METHODS: We used data collected from 2011-2014 via the National Health and Nutrition Examination Survey (NHANES). Demographic characteristics, sodium intake and urinary symptom data were collected via in-person interviews and standardized questionnaires. Sodium intake was assessed via 24-hour recalls collected on two separate dates. Participants were excluded if age <40 years, history of genitourinary/gynecologic malignancy, or missing exposure or outcome data. We used a multivariate logistic regression model using survey sample weights and adjusted for potential confounders to calculate odds ratios and 95% confidence intervals. We assessed for effect modification by gender and diuretic use.

RESULTS: A total of 5,798 participants were included. Demographic and clinical characteristics of patients with and without nocturia are summarized in table 1. Dietary sodium intake was not independently associated with nocturia (highest versus lowest quintile odds ratio = 1.4; 95% confidence interval 0.8, 2.3; p-trend = 0.22) after adjustment for age, gender, BMI, depression, and household income (table 2). Other potential confounders including race/ethnicity, presence of urge/stress urinary incontinence, daily physical activity, diabetes, hypertension, education level, history of cardiovascular disease, and psychotropic or diuretics use were tested but were not included in the final model as they were found not to impact the results. There was no evidence of effect modification by gender or diuretic use.

CONCLUSIONS: After adjusting for potential confounders, dietary sodium intake was not significantly associated with prevalence of nocturia in a nationally representative, cross-sectional, population-based study.

Table 1 – Demographic and clinical characteristics of patients with and without nocturia in 2011–2014 cycle of NHANES

	Nocturia	No nocturia	p-value
Total n.	878	4689	
Sodium intake, mean±SD	3269 ± 61	3381 ± 32	0.16
Age, mean±SD	61 ± 0.5	57 ± 0.3	
Male gender %	48	43	0.049
Congestive Heart Failure %	9	3	0.001
Body Mass Index %			<0.001
Normal	23	27	
Overweight	29	35	
Obese	48	38	
Depression %			<0.001
None	76	93	
Moderate	20	7	
Severe	4	1	
Physical activity quintile %			<0.001
Q1	47	30	
Q2	7	12	
Q3	16	18	
Q4	18	23	
Q5	12	17	

[1] p-values for categorical variables were calculated using a Pearon's Chi-Square test and p-values for normally distributed continuous variables were calculated using a t-test

Table 2. Odds of nocturia by quintile of dietary sodium intake.

	Quintile of dietary sodium intake					p-trend[1]
	1	2	3	4	5	
Mean sodium intake mg (SD)	1595 (16.2)	2292 (7.9)	2922 (6.9)	3679 (12.4)	5336 (49.7)	
Model 1 OR (95% CI)[2]	1.00	0.82 (0.6 – 1.2)	0.9 (0.6 – 1.4)	0.75 (0.5 – 1.02)	1.08 (0.6 – 1.8)	0.56
Model 2 OR (95% CI)[3]	1.00	1.05 (0.6 – 1.7)	1.3 (0.8 – 1.9)	1.05 (0.7 – 1.6)	1.4 (0.8 – 2.3)	0.22

Abbreviations: OR: odds ratio; CI: confidence interval, SD: standard deviation

[1] P-trend calculated by modeling the median of each category as a continuous term.
[2] Minimally-adjusted model adjusted for age and gender.
[3] Multivariate model adjusted for age, gender, BMI, depression, and household income.

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MP04-08

CHARACTERISTICS OF MEN WITH UNTREATED LOWER URINARY TRACT SYMPTOMS PARTICIPATING IN A STUDY ASSESSING SELF-DIRECTED USE OF OVER-THE-COUNTER TAMSULOSIN

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INTRODUCTION AND OBJECTIVES: Men with lower urinary tract symptoms often accept their symptoms as a natural progression of aging and seem reluctant to discuss these with healthcare providers (HCPs). Consequently, these men do not seek timely medical assistance. The objective was to describe baseline demographics and clinical characteristics of men currently not using prescription medications for benign prostatic hyperplasia (BPH) who were interested in self-directed use of over-the-counter (OTC) tamsulosin and had participated in relevant OTC-simulated studies.

METHODS: Data were obtained from 4 studies simulating OTC use of tamsulosin. These studies recruited consumers via mass advertising targeted towards men with bothersome urinary tract symptoms. Baseline data were pooled and analyzed for men who were currently not using an alpha-blocker or a prescription medicine for BPH, and who believed that the OTC product was appropriate for them to use or were interested in purchasing this product.

RESULTS: Overall, 3380 men were not using any BPH treatment with an average age of 61 years; majority (61.9%) were younger than 65. The average American Urological Association Symptom Index (AUA-SI) total score was 17.6, with 48.1% (n=1627) of men reporting their symptoms as moderate and 40.4% (n=1365) as severe; 26.2% (n=884) of men reported urinary symptoms for more than 5 years (Table). In general, 47.3% (n=1598) of men visited their HCPs more than once a year, and 52.6% (n=1777) had ever discussed their urinary symptoms. Overall, 26.1% (n=760) of men were told by a HCP that they had BPH or an enlarged prostate. The most frequently occurring comorbidities were hypertension (44.2%), high cholesterol (34.4%), and erectile dysfunction (21.2%).

CONCLUSIONS: Pooled data show that many men interested in self-directed care with OTC tamsulosin have long-term moderate-to-severe male LUTS and are currently untreated. A self-management strategy using an OTC alpha blocker may be a viable alternative for this undertreated population. It is reassuring that many of these men reported visiting their HCPs regularly at least once a year allowing for risk mitigation.