

DYSURIA IS NOT A SYMPTOM WHICH INDICATES ONLY URINARY TRACT INFECTION; CHARACTERISTICS OF DYSURIA AND LOWER URINARY TRACT SYMPTOMS IN THE GENERAL WOMEN POPULATION

Hypothesis / aims of study

Dysuria most often indicated urinary tract infection (UTI), it may be a symptom that has other various potential causes in women. Previous studies present that non-infectious etiologies such as hormonal conditions, anatomical abnormalities of urinary tract, and dysfunctional voiding are related with dysuria as well as UTI. However, the interest and study are lacking about dysuria related with various potential reasons except UTI. Therefore, we reviewed and analyzed the characteristics of dysuria and the associated conditions in the women who take regular health checkups.

Study design, materials and methods

A medical record of 39467 women who visited in the health promotion centre was reviewed. The 9820 women who completed the questions about LUTS from the health questionnaire were included. The questions about LUTS were composed of 6 inquiries about dysuria, frequency, urgency, urge incontinence, nocturia and stress urinary incontinence (SUI). Of the 9802 women, 1786 (18.2%) women presented to have dysuria. Urinalysis, lifestyle factor, comorbidities, menopausal conditions were investigated in the 1780 women who showed dysuria from the questionnaire.

Results

The mean age of the 1786 women who showed dysuria was 43.1 ± 15.9 (18 – 87) years. The 83.4 (1489/1786)% showed normal urinalysis. Abnormal urinalysis was observed in 16.7 (297/1786)% and the 12.2 (218/1786)% showed pyuria. The other 79 from the women with abnormal urinalysis showed microscopic hematuria and the 3 of them had renal stones. The mean age of 1489 women with dysuria and normal urinalysis was 42.8 ± 15.9 years and 87.2 (1298/1489)% was between 25 to 54 years. Four (58/1489)% had diabetes and 34.8 (518/1489)% was menopausal women. Thirty four percent (506/1489)% drank more than 2 cups of coffee a day and 2.6 (39/1489)% smoked. Of the 1489 women, frequency, urgency, urge incontinence, nocturia and SUI were observed in 55.8 (831/1489)%, 20.7 (309/1489)%, 21.6 (332/1489)%, 39.6 (590/1489)%, and 37.5 (559/1489)% women, respectively. The women with all of 5 LUTS were 20.8 (309/1489)% and 0.3 (13/1489)%, 16 (239/1489)%, 2.1 (31/1489)%, 16.2 (241/1489)% women showed 4, 3, 2, and 1 LUTS, respectively. The women only had dysuria was 64.01 (954/1489)%.

Interpretation of results

The prevalence of dysuria was 18.2% and this result was similar with other investigators' report. After we excluded the women with pyuria from the 1786 women who complained dysuria, 83.4% women was considered to have dysuria which was not associated with UTI. From these results, we suggest that dysuria is not a symptom which reflects only UTI. In addition, previous study presented that the prevalent age of dysuria was different according to the gender. Dysuria was more prevalent in the relatively young and sexually active women between 25 to 54 years according to the prior study. Similar with previous report, women between 25 to 54 years was 87.2% and we assumed that the cause of dysuria was also associated with the women's sexual activity. Lifestyle was not considered as a factor related with dysuria. Menopausal condition might be cause of dysuria. And a relatively fair number of women with normal urinalysis showed dysuria as a single symptom without other LUTS.

Concluding message

Dysuria usually indicated UTI. However, dysuria can be caused by other non-infectious etiologies. Moreover, the large number of women showed dysuria as a single symptom associated with voiding. Therefore, careful evaluation is necessary to diagnose and treatment for the women who complaining dysuria.

References

1. Am Fam Physician. 2002;65:1589-96
2. JAMA. 2002;287:2701-10
3. Br J Gen Pract 1991;41:241-3

Disclosures

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