

THE EPIDEMIOLOGICAL STUDY OF WOMEN WITH URINARY INCONTINENCE AND RISK FACTORS FOR STRESS URINARY INCONTINENCE IN CHINA

Hypothesis / aims of study

To evaluate the prevalence and associated risk factors of urinary incontinence in Chinese women.

Study design, materials and methods

In the cross-sectional survey, 20,000 Chinese women aged ≥ 20 years were randomly selected and interviewed with modified Bristol Female Lower Urinary Tract Symptoms (BFLUTS) questionnaires to estimate population prevalence rates and identify potential risk factors.

Results

19,024 cases were included in the analysis with 976 excluded, qualified rate 95% (19024/20000). Of the Chinese women aged from 20 to 99 years old, (mean 45 ± 16), the overall prevalence of urinary incontinence (UI) was 30.9%. Estimates of stress urinary incontinence (SUI), urge urinary incontinence (UUI) and mixed urinary incontinence (MUI) prevalence were 18.9%, 2.6% and 9.4%, with a corresponding proportional distribution of 61%, 8% and 31%, respectively. The prevalence of MUI increased with aging, while the prevalence of SUI peaked in 50 years group, and the UUI in 70 years group. Only 25% patients have consulted doctors on this issue. Through multivariable logistic regression analysis, we identified age, vaginal delivery, multiparity, alcohol consumption, central obesity (female waist circumference ≥ 80 cm), constipation, chronic pelvic pain (CPP), history of respiratory disease, gynecological events, pelvic surgery, peri-menopausal and postmenopausal status as potential risk factors for SUI, among which age, vaginal delivery, multiparity are three major risk factors.

Interpretation of results

The reason for these differences may be ethnic, physical and related risk factors. The consultation rate of UI is lower, a pattern that has been observed worldwide.

The low consultation rate was mainly due to the understanding that UI was a natural consequence of aging and giving birth, apart from embarrassment.

In Our study, parity and most modes of delivery (single vaginal, multiple vaginal and single cesarean) were significant independent risk factors for SUI. Few women experienced multiple cesarean delivery, and our null findings may reflect low statistical power. We should pay more attention to the prevention and treatment of UI during pregnancy, delivery and post partum.

Our large study showed that the prevalence rate of SUI was the highest in 50 years group. Other contributing, modifiable factors of incontinence co-vary with age, however, and UI should not be considered an inevitable consequence of aging.

In our study, the independent risk factors of SUI among Chinese women are constipation, alcohol consumption, menopause, history of respiratory disease, pelvic surgery, especially hysterectomy.

Our study demonstrated that UI is common in Chinese women aged 20 or over and that SUI is the most prevalent subtype. China is the country with large population, we can't survey every adult women in our study, so true prevalence of UI in china may be underestimated. In addition, this is a cross-sectional study, so it is difficult to interpret some risk factors relationship, more samples and prospective study are necessary in the future.

Concluding message

Our findings suggest that the prevalence of UI is high in China, with SUI as the most common subtype. Age, vaginal delivery and so on are risk factors for SUI.

References

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Was the Declaration of Helsinki followed?	Yes
Was informed consent obtained from the patients?	Yes