A Survey on Prevalence of Overactive Bladder and Its Risk Factors in Adolescent in Mainland China

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Introduction
Overactive bladder (OAB) is a common urological abnormality, which has adverse effects on quality of life. As far as we know, there are few studies on adolescent OAB in China, and few studies have analyzed the relationship between various factors and OAB at the same time. Our study adopted the latest ICS standards, aiming to explore the prevalence and related factors of adolescent OAB, and provide help for clinical prevention and treatment.

Methods
From September 2018 to December 2018, 13083 students (20±2.0y) from two universities in Henan Province were investigated. Students come from 368 cities and 23 provinces of all over the country. After the informed consent, anonymous questionnaires were used to obtain the prevalence of OAB and information of risk factors. The questionnaire included general items such as gender, date of birth, birthplace, height, weight, and college entrance examination scores, history of urinary infection, defecation, and overactive bladder score (OABSS). Urinary emergency score of OABSS (≥2 points) and total score (≥3 points) can be diagnosed as OAB. Chi-square test was used to determine the differences of prevalence between gender, age groups, Place of residence, BMI, and constipation, anus prolapse, anal fissure, urinary tract infection, enuresis.

Results
The overall prevalence of OAB was 6.0% (788/13083). The prevalence of mild OAB was 5.6% (727/13083), moderate OAB was 0.5% (61/13083), and no severe OAB patients. The prevalence rates of ≤19 years old, 20 years old and ≥21 years old were 6.3%, 6.4% and 5.7% respectively, and no significant difference were found between them. The prevalence of OAB was 4.7% in boys and 6.7% in girls. The prevalence of OAB in constipation patients was 8.6%, higher than that in non-constipation patients. The prevalence of OAB in patients with anus prolapse and anal fissure, past urinary tract infection and enuresis was higher than that in other groups (P < 0.05), has statistical significant. Multivariate and unconditional logistic regression analysis of the univariate analysis of meaningful indicators found that female, constipation, anus prolapse and anal fissure, past urinary tract infection and enuresis were significantly associated with OAB.

Conclusions
OAB is common in Chinese adolescents and female, constipation, anus prolapse, anal fissure, past history of urinary tract infection and enuresis were its risk factors.