

Chung J M<sup>1</sup>, Lee S D<sup>2</sup>, Kwon D D<sup>3</sup>, Kim K S<sup>4</sup>, Kim S Y<sup>5</sup>, Park K H<sup>6</sup>, Park Y H<sup>7</sup>, Pai K S<sup>8</sup>, Suh H J<sup>9</sup>, Lee J W<sup>10</sup>, Ha T S<sup>11</sup>, Han S W<sup>12</sup>

1. Kosin University College of Medicine, Department of Urology, Busan, Korea, 2. College of Medicine, Pusan National University, Department of Urology, Busan, Korea, 3. Chonnam National University Hwasun Hospital, Department of Urology, Hwasun, Korea, 4. University of Ulsan, Asan Medical Center, Department of Urology, Seoul, Korea, 5. College of Medicine, Pusan National University, Department of Pediatrics, Busan, Korea, 6. Sungkyunkwan University Samsung Medical Center, Department of Urology, Seoul, Korea, 7. Yeungnam University Medical Center, Department of Pediatrics, Daegu, Korea, 8. Ajou University Medical Center, Department of Pediatrics, Suwon, Korea, 9. Our Lady of Mercy Hospital, The Catholic University of Korea, Department of Urology, Incheon, Korea, 10. Kangnam Sacred Heart Hospital, Hallym University, Department of Pediatrics, Seoul, Korea, 11. Chungbuk National University Hospital, Department of Pediatrics, Cheongju, Korea, 12. Yonsei University Severance Hospital, Department of Urology, Seoul, Korea

## PREVALENCE AND RISK FACTORS OF OVERACTIVE BLADDER IN KOREAN CHILDREN 5-13 YEARS OLD: A NATIONWIDE MULTICENTER STUDY

### Hypothesis / aims of study

To estimate the prevalence of overactive bladder (OAB) in Korean children, 5-13 years of age and to assess the risk factors associated with OAB.

### Study design, materials and methods

A randomly selected cross-sectional study was conducted in 26 kindergartens and 27 elementary schools nationwide in Korea. There were 19,240 children; a parent asked to complete questionnaires, which included items about OAB, voiding and defecating habits. OAB was defined as urgency with or without urge incontinence, usually with increased daytime frequency and nocturia (ICCS 2006, group A) or increased daytime frequency (>8 times/day) and/or urge urinary incontinence with or without urgency (group B); its prevalence and risk factors were investigated.

### Results

The response rate for the questionnaires was 85.84%. The overall prevalence of OAB was 16.59 % (group A) and 18.79% (group B). For groups A and B, the prevalence of OAB decreased with age from 22.99% to 12.16% and from 40.44% to 9.60%, respectively ( $p=0.0001$ ). The overall wet and dry OAB was 26.97% and 73.03%, respectively. Compared to normal, children with OAB had a higher prevalence of nocturnal enuresis (NE), constipation, fecal incontinence, history of urinary tract infection, and delayed bladder control in both groups A and B ( $p<0.05$ ). The increased daytime frequency and urge incontinence were 3.69% and 2.31% ( $p=0.009$ ), and 26.97% and 14.78% ( $p=0.0001$ ) in group A and non-OAB children, respectively; their prevalence in group A decreased with age from 5.04% to 3.06% and from 45.74% to 18.50%, respectively ( $p=0.0001$ ).

### Interpretation of results

The overall prevalence of OAB in group A in Korean children, 5-13 years of age, was similar to that in group B. NE, constipation, fecal incontinence, and a history of urinary tract infection may be risk factors for OAB in children.

### Concluding message

The overall prevalence of OAB in group A Korean children, 5-13 years of age, was similar to group B and to the reported Japanese prevalence (16.59% vs. 18.79% vs. 17.8%).

### References

Urology (2003) 61; 37-49.  
Neurourol Urodyn (2002) 21; 167-178.  
J Urol (2006) 176; 314-324.

<b>Specify source of funding or grant</b>	<b>No funding or other financial support was received.</b>
<b>Is this a clinical trial?</b>	<b>No</b>
<b>What were the subjects in the study?</b>	<b>HUMAN</b>
<b>Was this study approved by an ethics committee?</b>	<b>Yes</b>
<b>Specify Name of Ethics Committee</b>	<b>The Korean Enuresis Association</b>
<b>Was the Declaration of Helsinki followed?</b>	<b>Yes</b>
<b>Was informed consent obtained from the patients?</b>	<b>Yes</b>