

## **PREVALENCE OF SYMPTOMS OF NON-NEUROGENIC BLADDER/SPHINCTER DYSFUNCTION IN CHILDREN WITH PROVEN HYPERLAXITY OF JOINTS**

### **Aims of Study**

Urinary incontinence and urinary tract infections associated with non-neurogenic bladder sphincter dysfunction occur frequently in children with an expected frequency in girls of 7%. A possible relation with joint hypermobility was suspected. Fifteen % of all children has joint hypermobility. The study is done to assess the relationship between generalized hypermobility of joints and symptoms of non-neurogenic bladder sphincter dysfunction in children.

### **Methods**

A survey based on a validated questionnaire was conducted among children diagnosed with generalized hypermobility of joints and among a control group.

Parents of 200 children diagnosed with generalized hypermobility of joints according to the Beighton and Bulbena scales and parents of 300 healthy school children 5-12 years of age, were asked to fill out a questionnaire about micturition and defecation habits of their children. Of the control group, 117 questionnaires were evaluable against 91 of same-aged hypermobile children. One boy of the control group and two hypermobile boys were excluded because of previous urological intervention.

Main outcome measures: Daytime urinary incontinence, nighttime urinary incontinence, urinary tract infection, fecal constipation and fecal soiling.

### **Results**

In 19% of hypermobile boys and in 4% of male controls fecal constipation was found ( $p=0.02$ ). Fecal soiling occurred more often in the hypermobile group than in the control group, 34% versus 18% ( $p=0.07$ ). In girls, daytime urinary incontinence and nighttime urinary incontinence was more prevalent in the hypermobile group (38% and 14%) than in controls (13% and 2%),  $p=0.004$  and  $p=0.02$  respectively. Hypermobile girls had a history of urinary tract infections in 24%, compared with 11% in the control group ( $p=0.08$ ).

### **Conclusions**

In children with generalized hypermobility of joints, symptoms of non-neurogenic bladder sphincter dysfunction are more prevalent. In boys this is manifested in constipation and possibly in fecal soiling and in girls in urinary incontinence and possibly in urinary tract infections.