

LOWER URINARY TRACT AND BOWEL DYSFUNCTIONS ARE THE MAJOR CONCERNS OF ADULT PATIENTS WITH SPINA BIFIDA : DATA FROM A PROSPECTIVE COHORT OF 395 PATIENTS

Hypothesis / aims of study

Spina bifida may be associated with various lower urinary tract and bowel dysfunctions. There is very little data on the prevalence and the severity of lower urinary tract and bowel dysfunctions in spina bifida patients. The objective of this study was to assess the major concerns reported by adults with spina bifida and to report the lower urinary tract and bowel dysfunctions observed in a cohort of spina bifida patients.

Study design, materials and methods

During their first visit to the French national referral center for spina bifida, patients were asked about their major concern in daily living. Concerns were categorized as follow : lower urinary tract dysfunction (urinary incontinence, multiple urinary tract infections,...), musculoskeletal disorders (motor impairment,...), bowel dysfunction (constipation, fecal incontinence, dyschezia...), sexual dysfunction (erectile dysfunction, dyspareunia,...), pain or social issue. The following parameters were also collected for each patients : history of urological surgery, type of spina bifida (myelomeningocele vs. closed spinal dysraphism), the neurological level according to Abbreviated Injury Scale, mobility (wheelchair bound vs. able to walk), method of voiding (clean intermittent catheterisation spontaneous voiding, urinary diversion,...), kidney function calculated using serum creatinine and 24-hours urinary creatinine, the Urinary Symptom Profile (USP 0-39) and Qualiveen scores (0-4), the Knowles-Eccersley-Scott Symptom Constipation Score (KESS), the Cleveland Clinic Incontinence Score (CCIS 0-20) and the Neurogenic Bowel Dysfunction score (NBD 0-47). All patients who were seen in the French National referral center from 2007 to 2015 were unselectively included.

Results

Three hundred ninety-five patients were included. The median age was 32 years (2-88) and there were 219 women (55.6%) and 176 men (44.4%). The distribution of spina bifida types was: myelomeningocele (69.4%) and closed spinal dysraphism (30.6%). The method of bladder emptying was: spontaneous voiding in 144 patients (37%); clean intermittent catheterization in 115 patients (54.4%); Non continent cutaneous diversion in 34 patients (8.7%) and indwelling catheter in 2 patients (0.5%). The most frequent major concerns were lower urinary tract dysfunction (28.5%) and bowel dysfunction (16.1%). The other major concerns were mostly musculoskeletal disorders (13.6%) and pain (9.6%). The average Qualiveen score was 2.6 (\pm 0.9) and 227 patients had a score \geq 3 (61.1%). One hundred seventy three patients (43.8%) reported at least one episode of symptomatic UTI per year. One hundred forty-five patients had urinary incontinence during their first visit (52.1%). Most patients reported fecal incontinence (58.1%) and dyschezia (73.7%). Prevalence of severe fecal incontinence (defined as CCIS score \geq 8), severe bowel dysfunction (defined as NBD score \geq 14) and severe constipation (KESS \geq 9) were 59.9%, 42.2% and 84.8%, respectively.

Interpretation of results

Severe bowel and lower urinary tract dysfunction are common and are the two major concerns of adults patients with spina bifida.

Concluding message

Lower urinary tract dysfunction and bowel dysfunction are common in adult patients with spina bifida and are the major concerns in daily living in 28.5% and 16.1% respectively. Only one third of patients void spontaneously, clean intermittent catheterization being the most frequent method of bladder emptying.

Disclosures

Funding: none **Clinical Trial:** No **Subjects:** HUMAN **Ethics Committee:** local ethics committee **Helsinki:** Yes **Informed Consent:** Yes