UROLOGICAL DISORDERS ARE STILL THE LEADING CAUSE OF DEATH IN PATIENTS WITH SPINAL DYSRALISM

Hypothesis / aims of study
Upper urinary tract damage due to neurogenic lower urinary tract dysfunction has long been reported as the first cause of death in spina bifida patients. However, recent data regarding the causes of death of patients with spinal dysraphism are scarce. The aim of the present study was to assess the current epidemiology of spina bifida in France and report the contemporary causes of in-hospital death of spina bifida patients.

Study design, materials and methods
We analyzed data from the French national code registry database (Programme de Médicalisation des Systèmes d'Information) from 2009 to 2014 to estimate the number of living births of spina bifida patients (using the following combination of CIM 10 codes: “Q05” or “Q76” and “Z38”) and the number of in-hospital deaths (using the following combination of CIM 10 codes: “Q05” or “Q76” and “discharge=9”) and their cause categorized as follows: urological, pulmonary, neurological, digestive, muscular/skin, cardiovascular, skeletal, infectious, cancer, others. The prevalence was calculated by doing the ratio of spina bifida living births over the total number of living births per year based on the Institut National de la Statistique et des Études Économiques (INSEE) data.

Results
The number of spina bifida living births per year ranged from 113 (2009) to 131 (2013) and was stable over the study period. The total number of living births during this period was between 81,1510 (2013) and 83,2799 (2010). The prevalence of spina bifida in France was therefore estimated between 1.3 and 1.6 / 100,000. The number of in-hospital deaths of spina bifida patients per year fluctuated between 14 (2012) and 31 (2011) making a total of 138 in-hospital deaths over the study period. The leading cause of in-hospital death was urological disorders (17%). Other main causes of death were pulmonary disorders (17%), neurological disorders (14%) and bowel disorders (11%).

Interpretation of results
Despite improvement in neurourological management over the past decades, urological disorders remain the leading cause of death in patients with spina bifida.

Concluding message
The current prevalence of spina bifida in France range from 1.3 to 1.6/100,000. Urological disorders remain the leading cause of death in spina bifida patients.

Causes of in-hospital deaths (N=138)

Disclosures
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