

Original Article

## Spinal disorders in children and teenagers: clinical data, imagnostics and therapeutic principles

Gh. BURNEI<sup>1,2,\*</sup>, Stefan GAVRILIU<sup>1, 2</sup>, Costel VLAD<sup>2</sup>,  
Cezar TOMESCU<sup>2</sup>, Raluca Alexandra GHITĂ<sup>2</sup>, Ileana GEORGESCU<sup>2</sup>,  
Cezara Alexandra DUGHILĂ<sup>3</sup>, Mădălina MACADON<sup>2</sup>

### Abstract

*Spinal pathology in children and teenagers may be evaluated by the presence of back pain and by the various surgical procedures for different spinal disorders. In our statistics about 40% of the patients presented with back pain and 24% of them, after thorough investigations, had vertebral column lesions. 16% had no obvious bony lesions. MRI with contrast and discography are highlighting intervertebral disk lesions of different degrees. Out of all patients with discal problems only 2% presented discal hernia.*

*Idiopathic scoliosis represent the most frequent spinal deformity and a very small number of patients accuse back pain, either due to arthritis lesions of the joint processes or to discal issues.*

*The second most frequent spinal issue is represented by Scheuermann's kyphosis. This disease is usually encountered in teenagers and it requires a surgical procedure, especially if the kyphosis is greater than 75 degrees and it is associated with pain when sitting and during school activities.*

*Congenital scoliosis has an incidence of 1/4.000 births in Romania. In Romania there are approximately 300 cases with congenital scoliosis, 80 cases being children and teenagers. The first surgical procedure with somatic instrumentation in Romania has been done in "Maria Skłodowska Curie" hospital by Prof. Dr. Gh. Burnei in 2000 with hemivertebra resection and somatic instrumentation with total correction of the axial deviation.*

*Nowadays in Romania there should be a serious effort to be done in order to detect early spinal disorders to avoid the onset of severe, rigid deformities which may only be treated by extended surgical procedures with high neurological risks and high costs. The data in this paper are meant to guide the medical persons in an early detection of spinal issues. The school*

<sup>1</sup> University of Medicine and Pharmacy "Carol Davila", Bucharest, Romania

<sup>2</sup> Clinical Emergency Hospital for Children "Maria Skłodowska Curie", "Alexandru Pesamosca" Clinics, Bucharest, Romania

<sup>3</sup> Clinical Emergency Hospital for Children "Sf. Maria", Iași, Romania

\* Address for correspondence: Prof. Dr. Gh. Burnei, University of Medicine and Pharmacy "Carol Davila", Bucharest, Romania, Clinical Emergency Hospital for Children "Maria Skłodowska Curie", 20, C-tin Brâncoveanu, email: [mscburnei@yahoo.com](mailto:mscburnei@yahoo.com)