ACUTE ONSET PARAPLEGIA IN ADOLESCENT WITH SCHEUERMANN DISEASE

Adrian Melnic[1,3], S. Plesca[1,3], M. Sangheli[2,3]

[1]*Department of Medical Rehabilitation, Physical Medicine and Manual Therapy, Nicolae Testemitanu State University of Medicine and Pharmacy, Moldova*
[2]*Department of Neurology No 1, Nicolae Testemitanu State University of Medicine and Pharmacy, Moldova*
[3]*Vertebroneurology laboratory, Diomid Gherman Institute of Neurology and Neurosurgery, Moldova*

Background: Acute myelopathy is an uncommon clinical presentation in young patients. There are multifactorial pathological mechanisms that can lead to myelopathy like inflammatory, infectious, ischaemic, nutritional, and metabolic causes. Spinal cord ischemia is a an uncommon event increasingly recognized in children, typically characterized by rapid progression of sensorimotor symptoms, fibrocartilaginous embolism being one of the rare causes.

Case report: A 15-year-old boy presented with sudden-onset paraplegia while playing football, associated with urinary retention and sensory deficit. His clinical presentation and neuroimaging studies were consistent with spinal cord infarction: an hyperintense signal on T2 weighted images with a “pencil-like” shape lesion in the distribution of the anterior spinal artery at Th4 – Th7 levels, localized opposite to multilevel Schmorl`s nodes with irregularities of vertebral endplates; anterior spinal cord displacement was mentioned. Described imaging findings met the criteria for Scheuermann disease. Laboratory investigation showed no evidence of infectious, autoimmune, inflammatory, or neoplastic causes. Lack of evidence for other plausible diagnoses in the context of patient clinical presentation and in the MRI findings made fibrocartilaginous embolism myelopathy the most likely diagnosis.

Discussion/Conclusion: Spinal stroke is rare in children and represent a challenge in differential diagnosis. Some cases of transverse myelitis were postulated that might be fibrocartilaginous embolism, making it a more prevalent cause of an acute myelopathy than commonly recognized. Given that the diagnosis of spinal cord injury by fibrocartilaginous embolism is a pathomorphological one, the clinical presentation with a hyper-acute evolution and the specific imaging changes remains the diagnostic alternative.